

## PLATFORM PRESENTATIONS

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### APPROACHES, ISSUES AND SOLUTIONS TO OSCES IN PRE-CLINICAL EXAMINATION TECHNIQUES, FORMULATION AND ASSESSMENT OF A BASIC COMPETENCY ALGORITHM IN EXAMINATION OF THE OPTIC NERVE HEAD

Kent M. Daum:

School of Optometry University of Alabama at Birmingham

**INTRODUCTION:** The certification of basic competency in clinical skills is an increasingly important aspect of education. The examination of the optic nerve head is a common critical clinical skill that does not presently have an accepted methodology to confirm its acquisition.

**PURPOSE:** The aim of this presentation is to discuss approaches to the valid and reliable examination of the optic nerve head (ONH); to use these data in the generation of an algorithm for basic competency in the assessment of the ONH; and, to suggest applications of this methodology to other clinical skills.

**METHODOLOGY:** One-hundred high-quality fundus images the ONH were examined by four experienced clinicians and thirty-nine optometry student novices. Each recorded cup-to-disk (CD) ratios and assessed color, neuro-retinal rim and integrity of the ONH for each image. The median of the experts was used as the standard.

**RESULTS:** Experts and novices differed in their judgments of CD ratios, assessment of the color, the neuro-retinal rim and, in their overall assessment of the ONH (all,  $p=0.0001$ ). A basic competency algorithm using absolute differences from the standard and approximately double the values of the experts as criteria indicated that the experts and eleven of the thirty-seven novices demonstrated basic competency.

**CONCLUSIONS:** Mean absolute differences established single pass-fail criteria. Since substantial variability occurs in clinical judgments, the algorithm allows one of the single differences to fall below the criterion and still pass. This work suggests that an algorithm may be useful in the certification of individual clinicians examining the ONH.

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## **BRIDGING DIDACTIC AND PRACTICAL KNOWLEDGE: DESIGN, IMPLEMENTATION, AND EVALUATION OF A PATIENT-LABORATORY EXPERIENCE**

Mary T. Blackinton, Leah Nof:

**INTRODUCTION:** Bridging classroom knowledge and clinical practice is a challenge in health professions education. Students have a difficult time role-playing patients, while faculty rarely get the chance themselves to observe whether students can apply their learning to real patients.

**PURPOSE:** The purpose of the study was to develop, implement, and evaluate an intensive laboratory experience that occurred in the classroom with actual patients. A weeklong institute was designed to provide adults with central nervous system (CNS) disorders the opportunity for an intensive week of neurological assessment and rehabilitation. Concomitantly, it provided 3rd year physical therapy students the opportunity to work with one patient intensely for five days while receiving guidance and feedback from the classroom faculty. It also allowed students to observe the effect of their interventions on a real patient.

**METHODOLOGY:** The Neurorehabilitation Institute (NI) was scheduled towards the end of the last of three neurological courses in a 3-year physical therapy program so that students could apply the accumulated knowledge they gained throughout the curriculum. Five patients with a variety of CNS disorders were recruited to attend the institute for one week. Each patient received 5 hours of therapy daily for 1 week: 2.5 hours in the morning by 3 students, and 2.5 hours in the afternoon by 3 different students. Patients signed an informed consent form, and the entire first day was spent on the initial examination and developing a plan of care. Students were supervised by four licensed physical therapists who taught in the neurological curriculum. The classroom was divided into four treatment areas: Gait and mobility training, upper extremity and manual therapy, balance and postural training, and strength/conditioning exercises. These stations were created to organize the students' time and use of resources. Outcomes evaluation included multiple student assessment techniques, including faculty observations/feedback, individual student documentation/charting, student group presentations, patient/caregiver feedback, student course evaluations and student reflections.

**RESULTS:** Course evaluations indicated that students perceived the NI to be one of the most valuable experiences in the entry-level DPT curriculum. Patient/caregiver feedback revealed that they greatly benefited from the experience. Faculty felt that they were able to accurately assess students' abilities and interactions with patients as well as re-emphasize key aspects that were lacking in students' performance. Faculty observed progress in students' confidence and patient handling skills over the week. Two areas of student deficiencies were a) difficulty performing tests and measures efficiently and effectively, and b) difficulty documenting concisely.

**CONCLUSIONS:** The NI is an effective laboratory experience in the classroom that benefits the students, patients, and faculty. Classroom and curriculum revisions will be made based on faculty's reflection of student performance. In the future, students will be given more time to practice administering neurological tests and measures in the prerequisite courses and will be asked to perform documentation during their treatment time to stress the need to be concise and efficient.

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## **CHANGING THE MODEL OF CHIROPODY CLINICAL EDUCATION IN CANADA: A FOCUS-GROUP INVESTIGATION**

Susan C. Weltz,

The Michener Institute for Applied Health Sciences

**INTRODUCTION:** The Chiropractic program curriculum at the Michener Institute was redesigned during a period of suspended student intake in 2005. The new curriculum offers an integrated model of clinical education, beginning in second semester and continuing throughout the remainder of the program. Similar models are used at podiatry schools in the United States, the United Kingdom, Australia, New Zealand and South Africa, and the clinical education in these countries is delivered at on-site or nearby affiliated training facilities.

**PURPOSE:** The purpose of the investigation was to obtain the opinions of foot specialists in Canada regarding the clinical education model to be used by the school.

**METHODOLOGY:** The data from four focus groups, held to elicit the opinions of practicing foot specialists regarding the clinical component of chiropractic education programs, is examined.

**RESULTS:** Results indicate overwhelming agreement to establish a hospital-based teaching clinic in close proximity to the school; employing didactic faculty, practicing clinicians, and medical specialists. Participants supported treatment of a client population with the most varied and complex case histories, beginning as early as the first semester for the duration of the program. Various viewpoints were identified regarding a recommended funding model for the new clinic.

**CONCLUSIONS:** The final study results will be used as a guidepost in the development of an affiliated teaching clinic for Canada's only chiropractic education program.

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## **CREATIVITY IN THE CLASSROOM -- USING THE JEOPARDY GAME TO REVIEW MANUAL MUSCLE TESTING SKILLS**

Cheryl J. Hill, PT, PhD,

Nova Southeastern University

**INTRODUCTION:** Research suggests that adult learners do not respond as well to traditional, instructor-initiated educational approaches, preferring a more interactive environment. Using an interactive game to engage students in the review process may result in better retention for adult learners than can be achieved with traditional strategies.

**PURPOSE:** The purpose of this project was to find a creative way to review both cognitive and psychomotor skills associated with manual muscle testing with first-year physical therapy students.

**METHODOLOGY:** Students are divided into three groups. Each group chooses its spokesperson, who is responsible for choosing the question and the monetary value for the group. The spokesperson consults with his or her team when answering questions. Since all students are assigned to a team, even those not actively engaged in answering questions are still involved in the process. If a spokesperson answers incorrectly, incompletely, or exceeds 10 seconds to answer, the first of the remaining two teams to signal they want to answer gets a chance to answer the question. When all questions on the Jeopardy board have been selected, the game is over, and the team with the highest score wins a novelty prize.

**RESULTS:** Student and faculty feedback was overwhelmingly positive about this experience. Student feedback was grouped into four categories: 1) "muddy points" were clarified; 2) competition motivated hard thinking, 3) self-confidence increased with correct answers, and 4) discomfort with risk of being wrong was experienced. Faculty feedback was grouped into three categories: 1) the number of "teaching moments" was awesome, 2) not sure the questions were accurately rank ordered from easiest to hardest, and 3) it was fun.

**CONCLUSIONS:** Creativity in teaching often appears in the unexpected, the unanticipated, and the unscripted. The fast pace of the game and the spontaneity that occurs provides multiple "teaching moments" and opportunities for students to reinforce and clarify their own understanding of issues related to manual muscle testing in a fun, creative, and competitive way.

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## **DETERMINATION OF HOW NURSE EDUCATORS SUCCESSFULLY TRANSITION TO LEADERSHIP IN NURSING EDUCATION**

Diane Whitehead Ed.D., RN, Jean Davis, Ed.D., RN; Maria Fletcher, PhD., RN

Nova Southeastern University St. Joseph's College

**INTRODUCTION:** Factors affecting job satisfaction in nurse faculty suggest that the most significant factors are the perception/expectation of the leader's role in curriculum and instruction and role conflict/role ambiguity. This research, funded by the National League for Nursing (NLN), is part of the development of a comprehensive leadership plan envisioned by the NLN.

**PURPOSE:** The purposes of this study are to determine what comprises leadership in nursing education and to generate a theory of how nurse educators transition to leaders in nursing education. A theory of successful transitioning to leadership in nursing education is vital to developing a cadre of leaders in nursing education.

**METHODOLOGY:** This qualitative study used a grounded theory approach through interviewing those who have experienced the transition to faculty leadership in nursing education. Eleven faculty leaders were interviewed for this grounded theory study.

**RESULTS:** The following themes emerged: passion, self, foundation, atmosphere, and background. The theory based on the above, is that the concepts of self, foundation, atmosphere and background are necessary but not sufficient for transitioning to successful faculty leadership. Successful faculty leadership additionally requires passion.

**CONCLUSIONS:** This theory will provide the foundation on which to base the leadership development efforts of the National League for Nursing. The results may also lead to further study with other health disciplines.

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## **DEVELOPING A PHYSICIAN ASSISTANT FACULTY DEVELOPMENT MODEL THROUGH GOALS AND PREFERRED ACTIVITIES**

John W. Rafalko, M.S., PA-C,

Nova Southeastern University

**INTRODUCTION:** Faculty development includes the traditional goals of teaching, research, and service. This scholarship academe triad was linked to the administrative culture of the institution by analysis as related to an environment favorable for faculty and professional development.

**PURPOSE:** The purpose of this study is to: (1) develop a Faculty Development Model for the PA Program faculty based on their goals and preferred learning activities assessed by a self-improvement plan and (2) identify if a faculty development culture exists and is administratively supportive that are consistent with an effective Faculty Development Model.

**METHODOLOGY:** Eight procedures were utilized to cover this developmental methodology practicum.

**RESULTS:** The results of this Likert survey demonstrated that PA Program faculty expressed professional goals that favored their teaching, and reflected unfavorably against research questions surveyed. The service related questions were in the midrange of faculty response. The PA Faculty Development Model product was developed.

**CONCLUSIONS:** The conclusions were: (1) there is a difference between PA faculty development goals and preferred activities used to develop the Faculty Development Model as revealed by the Faculty Needs Assessment Survey, and (2) there is a difference between faculty development goals at the PA Program level compared to the strategic plan of the university. The PA Program faculty were consistent with Tozier's national PA sample conclusions, but in culture conflict with traditional institutional attitudes. A Faculty Development Model based on a revised and progressive scholarship academe triad defined by Boyer and the CAHN was developed specific to the PA Program faculty goals and preferred activities.

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## **DEVELOPING, APPLYING, AND EVALUATING AN INTERACTIVE MULTIMEDIA INSTRUCTIONAL TOOL -VIRTUAL OPTICS LABS IN OPTOMETRY EDUCATION**

Bai-chuan Jiang, Ling Wang, David S. Loshin

College of Optometry, NSU; Graduate School of Computer and Information Sciences, NSU

**INTRODUCTION:** As multimedia teaching technologies become more widely advocated in higher education, virtual optics labs have not been very well developed and applied in optics courses in physics, engineering and optometry programs.

**PURPOSE:** The Purpose of this study was to develop three virtual optics labs in the geometric optics and to evaluate the effectiveness of these labs.

**METHODOLOGY:** Based on the well designed traditional optics labs, the programs for virtual lab were developed by a professional software programmer using Flash and other webpage development software. Participants in the study were NSU first year optometry students enrolled in 2005 fall semester. The students were assigned to four sections (A-D). For the first part of the study, sections A and D served as the experimental group, i.e., using the virtual lab; and sections B and C served as the control group, i.e., conducting the traditional lab. For the second part of the study, the control group and the experimental group switched. Before and after each part of study, students were given quizzes as a metric to assess their learning outcomes. In addition, at the end of the study (i.e. the students experienced both virtual and real labs) the students completed an open-end questionnaire that was used to evaluate their perception of the virtual optics labs.

**RESULTS:** The Results showed that the program was as effective as the traditional optics labs. The advantages and challenges will be presented.

**CONCLUSIONS:** The study provided valuable information for educators about the potential of adopting virtual laboratories in courses.

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**DEVELOPMENT OF A MAJOR SPECIFIC ASSESSMENT INSTRUMENT FOR THE  
HEALTH SCIENCES.**

Kristi L. Lewis, PhD, MPH, Peter J. Swerdzewski, M.Ed. Shelley Ragland

James Madison University Center for Assessment and Research Studies

**INTRODUCTION:** Each spring graduating seniors at James Madison University (JMU) are required to complete an assessment exam. The exam is designed to assess knowledge gained within the student's major course work. The Health Sciences major at JMU has a Health Studies concentration that is designed to prepare pre-professional health students for graduate programs such as medical, dental, physical therapy, and other health-related programs. The assessment exam was completed as an end product of a faculty fellowship program through the Center for Assessment and Research Studies (CARS) at JMU.

**PURPOSE:** The purpose of this abstract is to describe the development of the assessment instrument.

**METHODOLOGY:** The steps included in creating the assessment exam were: 1) reviewing health science degree goals and objectives, 2) evaluating and assigning course objectives with the ten program learning goals, 3) engaging faculty in developing assessment items, 4) conducting item mapping to match goals and objectives with assessment items, and 5) modifying and finalizing of assessment items from feedback received through read-aloud.

**RESULTS:** This step-by-step process has led to the development of an assessment specific to the Health Studies concentration for graduating seniors in the Health Science field. The process allowed for a valid and reliable instrument to assess knowledge gained through the major core course load within the Health Science curriculum.

**CONCLUSIONS:** By having an assessment for this concentration within the Health Sciences major, the faculty can look at what areas and courses need to be realigned or modified.

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**ENHANCING THE VALUE OF THE SENIOR CURRICULUM SURVEY BY LINKING STUDENTS' RESPONSES TO THEIR ACADEMIC PROFILES AND BY COMPARING LOCAL RESPONSES TO NATIONAL BENCHMARKS**

Jerry H. Alexander, Ph.D., Bruce Dubin, D.O., J.D., Michael Budd, Ph.D., Rebel L. Jones, B.S., Howard S. Teitelbaum, D.O., Ph.D., M.P.H

U. North Texas Health Science Center's Texas College of Osteopathic Medicine, New York College of Osteopathic Medicine

**INTRODUCTION:** Students' responses to a survey at the time of graduation are very candid and therefore very useful in assessing the curriculum they have experienced across their four years of medical education. Still, further questions arise. For example, what are the characteristics of students who say that if they had to do it all over again, they would choose to attend the same osteopathic college, attend another college of osteopathic medicine, attend an allopathic medical school, attend a different health professions school, or not attend any medical or health professions school.

**PURPOSE:** The purpose of this study is to enhance the value of Texas College of Osteopathic Medicine's (TCOM) Senior Curriculum Survey by linking students' pre-admission scores, medical school grades, licensing exam performance, and post-graduate career plans to their responses on the curriculum survey. Further, comparison to national benchmarks will facilitate identification of areas of local excellence, as well as areas for concern.

**METHODOLOGY:** Responses to TCOM's Senior Curriculum Survey, Class of 2006 were linked to the college's online student academic tracking system. Respondents were classified into groups based upon their class ranks in didactic, clinical and overall academic performance. Data were analyzed with quantitative, as well as qualitative methodologies. Comparisons were made to the monumental Osteopathic Medical Education Study, the first comprehensive study of undergraduate and graduate osteopathic medical education in the United States.

**RESULTS:** Analysis is ongoing and will be available during Fall 2006.

**CONCLUSIONS:** Conclusions will be available following the completion of the analysis in Fall 2006.

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## Evaluation of a health education promotion course for pharmacy students in Puerto Rico

Brenda Soto-Torres, MPHE, Ph.D., CHES, Blanca I. Ortiz, B.S.Ph., Pharm.D., & Lillian Arce de Malave, Pharm.D.

Introduction/Background: Due to the increasing role of pharmacists as public health extenders, an elective course on health education and promotion was developed for pharmacy students in Ponce, P.R. Purpose: The purpose of this pilot study was to evaluate satisfaction towards a health education promotion course. Methodology: A questionnaire was administered to 16 students enrolled in the first offering of the course. Descriptive statistics and frequency distributions were performed using SPSS and Excel. Results: The majority of participants were Hispanic females (94%), with a bachelor's degree (56%), in third year (63%) and single (56%). Most participants (81%) had 0-2 yrs of work experience before starting their Pharm.D. Fifty-six percent (56%) of participants were interested in community pharmacy after graduation. The main reason for taking the course was for personal interest. Participants ranked *Patient education and promotion resources* and *Grant writing* as the most and least relevant topics, respectively. The mean overall satisfaction score with the course was 22/28. Audiovisual support and instructional approaches were reported as the most and least satisfactory aspects, respectively. The mean score for how well the course prepared participants to design a health education promotion program was 3.2/4. Conclusions: Participants were more focused on their medication dispensing roles and short-term benefits of the course than on public health activities and long-term benefits. Although participants envisioned themselves primarily on dispensing roles, most of them recognized the importance of the course as part of the pharmacy curriculum and would recommend it to their peers.

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**EVALUATION OF A PHYSICIAN ASSISTANT COURSE TITLED CLINICAL MEDICINE  
AND SURGERY AT NOVA SOUTHEASTERN UNIVERSITY**

John W. Rafalko,

Nova Southeastern University

**INTRODUCTION:** The Physician Assistant program accreditation serves as the foundation of a process that demands established standards for accreditation were met and when exceeded required excellence in medical education.

**PURPOSE:** The purpose of this study for accreditation were regarded as an opportunity to perform an evaluative study to assess the course Clinical Medicine & Surgery to make recommendations for course modification based on the results of this evaluative study. The research question was: To what extent does the Clinical Medicine & Surgery course meet the curriculum requirements established for accreditation to evaluate course content and sequencing of learning with measurable instructional objectives?

**METHODOLOGY:** Formative and summative panels were established for advice on the effectiveness of the course and to provide input and validation regarding the criteria, the assessment design and the report. There were three approaches that were utilized in the proposed assessment design. These included a faculty survey, a student online survey, and finally faculty course syllabus review.

**RESULTS:** The results revealed that the assessment design responded favorably (agreed) by Likert scale surveys, and demonstrated that the criteria based on content and sequencing of learning experiences with measurable instructional objectives were met.

**CONCLUSIONS:** The gap analysis did not identify any discrepancies between the real study assessment and the ideal criteria accreditation guidelines. Faculty and online student course evaluation allowed timely input in this evaluative study. Recommendations were made based on the results of the assessment design to the Physician Assistant program to exceed accreditation standards and modify the course in order to achieve academic excellence.

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## **GETTING THE RIGHT BLEND: HOW DOES TEACHING CHANGE IN BLENDED LEARNING ENVIRONMENTS AND WHAT PREDICTS STUDENT SUCCESS?**

Sarah Ransdell, PhD, Sandrine Gaillard-Kenney, MA, Sally Weiss, EdD, RN,

Nova Southeastern University

**INTRODUCTION:** The "right blend" appears to be the blend that includes what makes all learning work, active engagement with information. Active learning also includes reducing the gap between what the student knows and what the teacher knows. If this is done in an online environment, instructors will need to monitor student communication since insecurities may be more hidden, intimacy may be heightened, and a sense of physical time and space will be relatively dynamic and recreated constantly.

**PURPOSE:** The purpose of this research is to recount the transition in a teacher experienced in the classroom, but new to blended learning, and to provide online data regarding active and passive use of a course website as it predicts student performance.

**METHODOLOGY:** Critical reflection on the transition from face to face teaching to online and blended learning environments will be provided as well as a quantitative analysis of the best online activity predictors of student outcomes.

**RESULTS:** Students who initiate discussion more often, regardless of how often they engage in other online activities, were found to do better in the class. Questions generated by students indicated that more detailed content was provided in face to face courses using the same materials than the instructor had thought.

**CONCLUSIONS:** The challenge of online and blended learning will be to anticipate, rather than simply predict what activities that can be monitored online will lead to the best student outcomes. Future research should provide students with ways to become more actively engaged in their own learning. The satisfaction of teaching online is knowing that students who are reinforced for taking initiative, and who practice learning to learn, will do better in the short and long run than those who memorize a set of static facts in whatever media they are presented.

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**IMPLICATIONS FOR BEST PRACTICES IN LECTURING BASED UPON RECENT RESEARCH IN NEUROBIOLOGY.**

Kathleen Hagen, MFA.

Nova Southeastern University

**INTRODUCTION:** Lecturing is a standard modality for health care classes, but recent research in neurobiology has shown that instructor monologue is not the best way of transmitting information to students. This presentation will focus on recent research in neurobiology as it pertains to lecturing and will then examine ways of modifying lectures to be more effective in terms of student comprehension and retention of material presented.

**PURPOSE:** To examine recent research in neurobiology as it relates to classroom lecturing and demonstrate how this research translates to better methods of lecturing.

**METHODOLOGY:** Works by Steven Pinker, James Zull, and John Bransford are explored to bring greater understanding of how the mind works. The implications of that information for how best to lecture to students (and health professions students in particular) are stated. The session will conclude with demonstrations of different techniques for modifying lectures based upon information presented.

**RESULTS:** Presentation attendees will be exposed to recent research in neurobiology, particularly as it pertains to learning in a lecture setting. They will see demonstrations of how lectures could be modified to follow new standards of best practices. Afterward, attendees may choose to re-examine their own lecturing style and adopt some of the proposed techniques.

**CONCLUSIONS:** As health professions educators, we are entrusted with producing excellent health professionals. Given the staggering amount of information students are expected to learn, it behooves us to train them using the most effective means.

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## **LEARNING STYLE, LEARNING STRATEGY, AND LOCUS OF CONTROL: A DESCRIPTION OF STUDENTS IN A DISTANCE PHD PROGRAM**

Leah Nof, PhD, PT., Cheryl Hill, PhD, PT., Madeleine Hellman, EdD., PT.

Nova Southeastern University

**INTRODUCTION:** Exceedingly high attrition rates (40 – 50%) have been reported in the United States with the growth of distance education. The purpose of this study was to describe, in a cross-sectional study that identifies learning style and motivation, the students who are in a one-of-a-kind distance PhD program at Nova Southeastern University; a program with an impressive 3.5% attrition rate.

**PURPOSE:** The factors that help reduce attrition from online programs have not yet been clearly identified. This study attempted to discover those factors by considering learning styles and their contribution to student retention.

**METHODOLOGY:** A three-part online survey was sent to all seventy-four students who were matriculating in the PhD, PT program as of January, 2005. The first part of the survey contained demographic information; the second part was the Kolb Learning Style Inventory (LSI), and the third part was the Nowicki-Strickland Locus of Control (LOC). For the qualitative questions, answers were grouped into themes by each author and then compared for agreement. Descriptive statistics were used to categorize respondents based on the Kolb LSI and the Nowicki-Strickland LOC. Chi Square was used to determine if there were any between-group differences.

**RESULTS:** Thirty-one surveys were returned, for a 40% response rate. Wanting to perform research, furthering the career and convenience of online education were identified as the predominant motivating factors keeping students in the program. Family issues, financial implications, and volume of course work were identified as the predominant de-motivating factors that made it difficult for students to stay in the program. For the Kolb LSI, there was no significant difference between the NSU students and the norms for the general population in terms of learning style. For the Nowicki-Strickland LOC, the vast majority of students (74%) fell in the high internal motivation category. Only 23% fell into the average internal/external motivation category, and 3.2% fell in the high external motivation category. These results are similar to those in a study by Terrell (2002). The norms across the general population were 33%, 52%, and 15% respectively. There was a significant difference ( $p=.000$ ) between the general population and the NSU students.

**CONCLUSIONS:** Though significance was found in comparing the general population with the NSU students, the populations are too different to draw conclusions from this statistic. It is the authors' opinion that the answer to the high retention rate lies in the nature of the students who attend the program and the profession's move to a doctoral entry level degree. Longitudinal studies that include successful completion of the dissertation process and studies comparing students in traditional with distance learning may provide additional insight into what makes students succeed in a distance education environment at the doctoral level. The results may imply that those who score as highly internally motivated should do well in an online learning environment, while those who score as highly externally motivated may be better suited to traditional learning. This should be discussed with potential students before they commit time and resources to distance learning programs. Faculty may need to maintain a high degree of contact with those students.

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# **LONGING FOR RECOGNITION: THE PASSION AND MELANCHOLIA OF PERFORMING DIETICIAN**

Jacqui Gingras

Ryerson University, Toronto, ON, Canada

**INTRODUCTION:** This research was undertaken to explore intersections between identity, professionalization, social theory, and feminist epistemology within the context of dietetic undergraduate education.

**PURPOSE:** The purpose of this study was to understand dieticians' experience of their education and practice as a means to enhance the scholarship of teaching and learning within dietetic education.

**METHODOLOGY:** Autoethnographic, phenomenological, and arts-based methods were used to explore the themes under consideration. The researcher, herself a dietitian and dietetic educator, recruited twelve female dieticians to participate in interviews where they shared their experiences and reflections on dietetic education and practice. Interview data were analyzed according to the Listening Guide, a voice-centred relational method.

**RESULTS:** Participants entered dietetics sustained by the promise of being able to make a difference with respect to others' nutritional health. Dieticians' lived realities were found to be discrepant from the promises of professionalism. Dietetic education, while not considered solely responsible for generating such promises, operated to sustain or amplify their effects. Melancholic expressions were associated with dieticians' inability to engage in liberatory practice and desire to leave the profession. An imagined, embodied curriculum depicting what could result if dietetic students, educators, and practitioners acknowledged the relationality, emotionality, and promises of their profession was offered in response.

**CONCLUSIONS:** The researcher calls for a renegotiation of what counts as knowledge in dietetic education through self-reflexivity such that □doing□ (performativity) emerges from □being□ (identity). Dietician performativity initiated through critical social discourse begs the question of what it means to be human while embracing the joys, complexities, and contradictions that are dietetic education and practice.

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## MULTIMODAL SUMMATIVE EVALUATION OF DPT CURRICULUM

Ellen Wruble Hakim, Fran Huber

University of Maryland School of Medicine Department of Physical Therapy and Rehabilitation  
Science

**INTRODUCTION:** The Clinical Qualifying Measures (CQM) combined standardized patients, simulated patient mannequins, and educational portfolios into a summative evaluation at the end of the 2-year didactic Doctor of Physical Therapy (DPT) curriculum as a gateway to the year-long, full-time clinical education internships.

**PURPOSE:** We conducted an analysis of student outcome data on a multimodal summative evaluation to inform decision-making about curriculum revisions and areas of future emphasis. A testing design that enhanced student awareness of personal strengths and areas for growth was implemented which mandated reflective analysis of performance.

**METHODOLOGY:** The CQM employed a variety of evaluative components: a standardized patient (SP) case incorporated curricular threads into an integrated scenario consistent with current clinical practice; computerized mannequins measured accuracy with cardiopulmonary testing; finally, a portfolio review promoted reflection into student growth and professionalism. Upon conclusion of the CQM, faculty members met to discuss trends in observation. Findings were documented and further explored during planning for subsequent teaching.

**RESULTS:** Assessment of curricular threads promoted changes in instructional content and teaching design. Observational analysis of CQM results revealed poor documentation skills, inability to effectively manage time and environmental constraints, lack of focus on patient-centered care, and rote approach to treatment planning for patients.

**CONCLUSIONS:** We used the data to implement changes in the curriculum including increasing emphasis on note-writing, familiarizing students with the testing environment and prioritizing for better time management, incorporating psychosocial aspects to any patient care episode and encouraging creativity in planning patient interventions.

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**PREDICTORS OF ACADEMIC ACHIEVEMENT IN AN ALLIED HEALTH PROGRAM:  
MATURITY AND EXPERIENCE**

Nathalie I. Garbani

Nova Southeastern University

**INTRODUCTION:** Allied Health Professions have become an integral and pivotal component of the health care system in the United States of America. High demand for Allied Health Professionals and for application in Allied Health education programs more than ever requires that selection criteria for admission are adequate.

**PURPOSE:** To determine the best tools to insure that admission process to Allied Health Education programs meets the goals of schools, professions and society at large, to respond to the demand of a changing health care system.

**METHODOLOGY:** Observations of students' academic achievements during class, laboratory sessions, and clinical externship, for the Bachelor of Health Science with a Specialization in Vascular Sonography, based on their admission GPA and interview report, and comparison with results of other similar studies.

**RESULTS:** Performances of the first three classes admitted to the program have shown that maturity and previous health care experience are better predictors of future academic achievement than GPA alone.

**CONCLUSIONS:** As educators in Allied Health Professions our main goals are to provide students with the necessary skills for the profession they chose but most importantly to insure they use these skills to meet the expectations of and be accountable to the population they will serve. The latter necessitates adequate selection criteria for admission to education programs.

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## **THE 4-F CLUB: AN EXTRACURRICULAR EDUCATION-ENHANCEMENT PROJECT FOR PHYSICIAN ASSISTANT STUDENTS**

Harvey A. Feldman, M.D.

Nova Southeastern University

**INTRODUCTION:** As intense and comprehensive as the first, or didactic, year of the Physician Assistant (PA) Program may be, there are still many areas of medical knowledge that cannot be covered in twelve months. Therefore, a void exists that can only be filled through an extracurricular activity.

**PURPOSE:** The 4-F Club was born out of a desire to expose students to a wide range of medical information not included in the standard curriculum, packaged in a fun-oriented, competitive format. A second goal was to help students develop literature-searching skills in order to prepare them for their Master of Medical Sciences research project in their second year.

**METHODOLOGY:** The 4-F Club (Feldman's Fascinating Facts and Fotos) is a WebCT-based competition. It consists of a series of twelve short-answer quizzes spaced at mostly 2-week intervals from September to April of the didactic year. The competition contains a total of 60-80 questions. Participation is strictly voluntary and students are advised to not let this interfere with required coursework. Following each quiz, I provide the correct answers on the Club's Discussion Board. A Final Shootout, designed to be tougher than the other quizzes, is held for the competitors with the five highest cumulative scores. The winner is the one who gets the most correct answers in the least amount of time. The winner is announced at the White Coat Ceremony in July and is presented with a framed certificate of achievement and a sizeable gift certificate.

**RESULTS:** Three PA classes have participated in the 4-F Club competition (graduating classes of 2005, 2006, and 2007). Because this is a voluntary, extracurricular activity which runs concurrently with a very intense, exam-laden curriculum, a significant attrition rate is to be expected during the course of the year. The participation rate in the first quiz has been about 50%, whereas by the twelfth quiz, the rate is down to 16-20%. However, there are others who do not submit answers, but who do look at the questions. Generally, the better students, who also have a competitive bent, are the ones who persevere throughout the length of the competition. Feedback from the students who have participated through most or all of the competition has been very positive (survey data will be presented). Even those students who did not fully participate have shown considerable interest in the announcement of the winner and have been very congratulatory to that student.

**CONCLUSIONS:** For those students who participate, the 4-F Club competition is a challenging and fun-oriented educational experience. In addition to conveying interesting factual knowledge, it enables students to develop research skills they will need throughout their careers.

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**USE OF THE CALIFORNIA CRITICAL THINKING SKILLS TEST TO ASSESS  
OUTCOMES OF CLINICAL EDUCATION**

Aurora Denial OD

New England College of Optometry

**INTRODUCTION:** One of the main outcomes of clinical education is the development of decision making skills. Clinical decision making utilizes critical thinking. Variability in clinical sites, instructors and patients often makes evaluation of clinical education challenging. Clinical performance is considered a valid measure of clinical education.

**PURPOSE:** The purpose of this study is to determine if critical thinking scores, as measured by a standardized test, correlate to evaluations of clinical performance. If test scores correlate then critical thinking tests may be a potential evaluation tool for clinical education.

**METHODOLOGY:** Seventy eight students from the New England College of Optometry were assessed after a year of modest clinical experiences (304 hours/year) with the California Critical Thinking Skills Test (CCTST). Thirty six of the students were retested with the CCTST after one year of intense clinical experience (1920 hours/year). For each cohort, clinical performance was grouped into three groups representing high, medium, and low ability.

**RESULTS:** After one year of modest clinical experience the clinical groupings were associated with total skills (Kruskal-Wallis test  $p=0.0040$ ). After one year of intense clinical experience, the critical thinking scores were still correlated to clinical performance ( $p=0.0057$ , Kruskal-Wallis test). The average CCTS score for the lower performing group is 15.5, the medium group 19.3 and the higher group 22.9.

**CONCLUSIONS:** In most cases clinical education is best assessed by multiple measures. Critical thinking scores as measured by a standardized test have potential as an evaluative tool.

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**USING SERVICE-LEARNING DURING THE FINAL 6 MONTH INTERNSHIP  
EXPERIENCE TO ENHANCE AND ASSESS CORE VALUES OF PROFESSIONALISM**

Marianne Janssen, PT, EdD, ATC

Elon University, Elon, NC

**INTRODUCTION:** This presentation will describe the victories and challenges of implementing service-learning projects outside the boundaries of the immediate University community. The service-learning projects are used to increase students' Core Values of Professionalism, and the non-direct patient/client management roles of the PT as outlined by the APTA in the Guide to PT Practice: education, consultation, critical inquiry and administration.

**PURPOSE:** To describe the ongoing development of a unique service-learning model outside the boundaries of the immediate University community used to enhance students' Core Values of Professionalism and the roles of the PT.

**METHODOLOGY:** Students on their final 6 month internship experience are required to complete a service-learning project. Before starting the internship, we have discussions about the values and importance of service-learning and how it fits within the professional role of the physical therapists. Students complete up to 6 reflections relating to the service-learning project while on internship. They submit a project proposal and upon completion of the internship submit a portfolio about the Core Values of Professionalism.

**RESULTS:** Preliminary results show that with the increased scaffolding provided this year the quality and appropriateness of the service-learning projects has dramatically increased. Student reflections as well, reflect their greater ability to grasp the importance of collaboration, needs assessments, research, evaluation of outcomes, and planning of PT related activities. At the time of submission of this abstract, it was too early to determine whether students have an increased appreciation for the challenges faced by the underserved and/or the under(un)insured populations.

**CONCLUSIONS:** The students who graduated in December 2006 overall did a wonderful job with their service-learning projects. All the projects met the core requirement of providing service to a population that otherwise would not have received this service, though some did so indirectly. Areas identified for further improvement include the Service-Learning part of the syllabus; having examples available from previous classes; and emphasis on the Learning part of the project. Barriers identified were time constraints, unfamiliarity with the location of the final internship, and challenges in working as a team with members in various geographical locations.

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## POSTER PRESENTATIONS

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### APPLICATION OF THE SITUATIONAL LEADERSHIP MODEL TO CLINICAL EDUCATION

Michael Bacigalupi, OD

Nova Southeastern University College of Optometry

**INTRODUCTION:** In 1969, Hersey and Blanchard described the changing roles of leaders based upon the abilities and willingness of their followers/employees in The Situational Leadership model. By modifying the two attributes of the followers/employees to match the qualities of professional students, clinical preceptors can gain insight into the leadership roles that they should adopt with different skill levels of students.

**PURPOSE:** To gain insight into the appropriate levels of task and relationship behaviors that a clinical preceptor should adopt to match with various levels professional students.

**METHODOLOGY:** By changing "ability" to "knowledge base" and "willingness" to "patient care experience" one can categorize professional students as S1-S4. [S1=Low Knowledge Base and Low Patient Care Experience] [S2=Moderate Knowledge Base and Low Patient Care Experience] [S3=High Knowledge Base and Moderate Patient Care Experience] [S4= High Knowledge Base and High Patient Care Experience] For a clinical preceptor with an S1 student, they must use a high task and high relationship behavior. This is the so-called "directing" behavior. For an S4 student, a clinical preceptor can adopt a more "delegating" role with low task and low relationship behaviors.

**RESULTS:** The 4 categories of leadership behavior in this model can easily be imagined to represent the 4 semesters of clinical experience that Optometry students gain during their professional training. During the first semester of their 3rd year, they are mostly S1 students. By the end of the 3rd year, they are gaining more knowledge and can be thought of as S2 students. Starting in the 4th year of optometry school, the students have gained significantly more knowledge and are growing in their patient care experiences, so they can be considered S3. By the time they have completed 4 years of optometry school and are in their 4 semester of patient care, they are definitely S4 students that need some freedom to make their own decisions regarding patient care.

**CONCLUSIONS:** By keeping in mind the growing knowledge base and patient care experience of each student, a clinical preceptor can match his/her task and relationship behaviors to the student's level of professional development.

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# **APPLYING THE CCPH ASSESSMENT TOOL OF STUDENT PERSPECTIVES ABOUT COMMUNITY SERVICE-LEARNING TO PRE-CLINICAL OPTOMETRIC EDUCATION**

Janet L. Leasher, OD, MPH

Nova Southeastern University College of Optometry

**INTRODUCTION:** Service-learning is a structured learning experience that combines community service with preparation and reflection. This philosophy of experiential learning underscores two one-credit Vision Screening/Community Outreach courses (OPT 3741 and 4941) in the second year curriculum at Nova Southeastern University College of Optometry (NSU) in Fort Lauderdale, Florida. Taking the classroom to the community, pre-clinical students are expected to apply what they learn in other didactic courses, transitioning them from students to clinicians, while at the same time challenging their sense of social responsibility for the most vulnerable populations with the least access to health care.

**PURPOSE:** To better understand the impact of service-learning in optometric education.

**METHODOLOGY:** The Community Campus Partnerships for Health (CCPH) student survey instrument was adapted slightly and administered to third and fourth year optometry students to study how these experiences influenced student perspectives on service-learning, their attitude toward community involvement, their choice of career/specialization, and their personal perceptions.

**RESULTS:** 31 third and fourth year NSU optometry students responded that community service-learning enhanced their ability to understand and apply the material learned in didactic courses, build clinical skills, better understand community needs, become responsible to make a difference in the community, define career choices and identify professional strengths and weaknesses.

**CONCLUSIONS:** Service-Learning continues to be a viable pedagogy in optometric education.

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## **ASSESSMENT OF AN INNOVATIVE PHARMACY ROUNDS COURSE**

Therese Poirier

Southern Illinois University Edwardsville

**INTRODUCTION:** A one credit course where students participate in seminar presentations where taking sides on a contemporary issue in pharmacy practice is developed and assessed. The course is offered during the second pharmacy professional year.

**PURPOSE:** The goal of the course is to develop presentation skills as the student learns about sides of a contemporary issue in pharmacy practice. The student also further develops skills in providing peer evaluations.

**METHODOLOGY:** Students working in a pair identify a contemporary issue in pharmacy practice where a taking side perspective can be presented. Students learn how to write learning objectives. Students also use various strengths of evidence to support a perspective. Students learn how to communicate their perspective in an abstract format. Student pairs effectively present their perspective using appropriate visual aids during a 15 minute time frame. Students gain experiences in providing constructive feedback by serving as peer evaluators. Students finally develop a personal perspective on pharmacy issues.

**RESULTS:** Peer evaluators using presentation evaluation criteria determine the pairs grading points for the presentation. Presenters complete a self evaluation of their own learning. Attendance and participation also comprises the grading rubric. Using a classroom response system enhances class participation for the final evaluation of the pair's presentation as a team.

**CONCLUSIONS:** The instructional strategies used to achieve course outcomes are successful and highly effective. Course evaluations, student self evaluation of learning and grading scores demonstrate this success.

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## **BULLETIN BOARDS, FORUMS AND WEB BOARDS USED AS VIRTUAL COMMITTEES**

Jay Rumsey OD, FAAO, Paul Abplanalp PhD, OD

Nova Southeastern University College of Optometry

**INTRODUCTION:** Within a busy professional college, time for faculty committee meetings comes at a premium. Different schedules, commitments and responsibilities call for special solutions to achieve a modicum of progress concerning college business.

**PURPOSE:** The purpose of this poster is to compare and contrast different internet applications and demonstrate the applicability and usefulness of a web board for faculty correspondence in the workings of a college committee. The benefits of the different methods to discuss and debate committee actions and recommendations are well worth the effort to set up an web board for an active faculty committee.

**METHODOLOGY:** A common university supported faculty resource is a web board. The set-up and maintenance of this resource is discussed in this poster.

**RESULTS:** We, at the College of Optometry, are able to demonstrate the efficiency and usefulness in the utilization of a web board to complete the activities of faculty committees within a virtual meeting.

**CONCLUSIONS:** We can recommend this resource as a valuable tool to complete college business within the framework of elected and assigned faculty committees.

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## **CHANGING CHARACTERISTICS OF PHYSICAL THERAPY STUDENTS**

Margaret M. Marvel, Robin L. Dole

Haverford Nursing and Rehabilitation Center, Widener University

**INTRODUCTION:** As the number of Doctor of Physical Therapy (DPT) programs has increased, the pool of qualified applicants, as well as pass rates on the National Physical Therapy Exam (NPTE), experienced a decrease.

**PURPOSE:** The purpose of this study was to investigate undergraduate, graduate and post-graduate characteristics of students in one program as it changed from a MSPT to a DPT curriculum, and to determine how these characteristics may have changed over time.

**METHODOLOGY:** Age, undergraduate and graduate grade point averages (GPA), graduate record examination scores (GRE), indicators of academic program performance, and performance on the NPTE were examined for 169 students from the MSPT classes of 2000 to 2002, and the DPT classes of 2003 to 2005.

**RESULTS:** Over the six years studied, there was an overall decline in pre-requisite and cumulative GPA, as well as in total GRE scores. There were also differences in the numbers of students who withdrew from the program, graduated late, required a second attempt or more to pass the key program components, and required a second attempt or more to pass the NPTE.

**CONCLUSIONS:** Differences in student characteristics in the classes of 2000 to 2005 may have been influenced by a variety of internal and external factors. The decrease in the number and quality of applicants to PT programs, and in pass rates for the NPTE nationally, may be related in part to a belief that highly qualified applicants were choosing to go into other fields.

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## **ECONOMICS FOR HEALTH PROFESSIONALS**

Geoffrey Warner,

NSU Huizenga School of Business and Entrepreneurship

**INTRODUCTION:** Many health care professionals are exposed to economics through cost-effectiveness or cost-benefit analyses as part of program evaluations, but the economics discipline has much more to offer the health care field. Especially in the areas of preventative medicine, health behaviors, and public health in general, economic principles can guide and help health care professionals to deliver more effective health care advice to their patients.

**PURPOSE:** The purpose of this presentation is to highlight the importance and the benefits of developing an economics course designed specifically for health care professionals.

**METHODOLOGY:** The presentation will summarize research that shows how economic factors have influenced adverse health behaviors or beneficial health behaviors. Such research includes the impact of taxes on tobacco and alcohol use, the impact of subsidies on vaccine use and gym use for exercise, the impact of employment opportunities and wages on rates teenage pregnancy and childbearing, and the impact of rewards on the outcomes of substance abuse treatment. The proposed course will explain the theory underlying how economic factors influence behavior, and familiarize students with the research demonstrating the influence of economic factors on health related behaviors.

**RESULTS:** Almost all of the research shows that individuals respond, to varying degrees, to changes in their economic environment in ways that impact their health.

**CONCLUSIONS:** Having knowledge and understanding of economics will help health care professionals improve health care quality and health outcomes. This will be achieved through better appreciation of the economic constraints, incentives, and disincentives their patients face.

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## **EMOTIONAL ENGAGEMENT AND MOVIE IMAGES: LAUGHING MATTERS IN LECTURING?**

Yuri Zagvazdin,

College of Medical Sciences, Nova Southeastern University

**INTRODUCTION:** Demonstration of motion pictures has been described as a method to facilitate learning of psychosocial and behavioral aspects of medicine. Application of movies or actor images for instruction in basic sciences has received little attention. In this research, I have focused on how to evoke positive emotional engagement of students by infusing humor via cinematographic images during lectures.

**PURPOSE:** To determine various forms, benefits and general principles underlying the use of film images during lectures in education of health care professionals.

**METHODOLOGY:** Literature search on the topic has been performed. Comments on the effect of movie images demonstrated during Physiology from evaluations completed by four different groups of students: Osteopathic Medicine, Dentistry, Optometry and Pharmacy were analyzed.

**RESULTS:** Pictures from 16 movies were shown during lectures. Displaying images of actors allows to create 1-2 minute transition intervals during lectures that: - help listeners to stay receptive to the complicated material; - shift attention to the ideas and points to remember; - build memorable associations between physiological concepts and clinical conditions. Movie title or actor's lines can serve as effective punch lines during demonstrations. Students referred positively to specific movies and actors. Their comments confirmed the engaging effect of humor.

**CONCLUSIONS:** Cinematographic images can be used as effective elements of medical presentations that helps to gain and hold audience attention, facilitate creative thinking and memory, and impart information in an enjoyable way.

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## **EVALUATION OF STRUCTURED PRACTICUMS DESIGNED TO ADDRESS CORE COMPETENCIES IN AN OPTOMETRIC EXTERNSHIP CURRICULUM**

Jocelyn K. Hunerdosse, BS, Heidi Wagner, OD, MPH, Andrea M. Janoff, OD

College of Optometry, Nova Southeastern University

**INTRODUCTION:** We have identified five core competencies that are intended to prepare student clinicians to demonstrate entry level competency in contact lens care.

**PURPOSE:** To evaluate student attitudes regarding the efficacy of structured practicums designed to address five core competencies.

**METHODOLOGY:** A convenience sample of 24 fourth-year optometric externs enrolled in the Cornea and Contact Lens Externship from May-August 2006 were invited to participate. Under the supervision of a licensed faculty member, student externs were mentored in fitting patients who were appropriate candidates for each of five core competencies. Using a Likert-style questionnaire (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree), externs were surveyed regarding the educational value of the practicum experience.

**RESULTS:** Mean response rate ranged from 50.0-66.6% for each core competency. Externs reported that workshops were appropriate (4.44), informative (4.34), and a valuable addition to the curriculum (4.32). Significant differences (Student t-test,  $p = 0.02$ ) were found between pre- and post-practicum attitudes, with externs reporting that they were more likely to utilize these advanced modalities after the practicums.

**CONCLUSIONS:** We have introduced a mechanism for assessing student learning outcomes in advanced clinical care environments. We plan to adapt these methods to future clinical care practicums.

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# **GENERATION OF AN EXPLANATORY MODEL OF HUMAN CARING IN REGISTERED NURSES**

Deborah A. Davenport

West Texas A&M University

**INTRODUCTION:** The idea of caring is central to nursing.

**PURPOSE:** The purpose of this grounded theory study was to qualitatively explore caring attributes or characteristics of registered nurses (RNs) and how these caring characteristics are thought to evolve.

**METHODOLOGY:** The study participants were recruited from one 394-bed, for-profit acute care facility in a southwestern city with a metropolitan population of over 200,000. Nineteen RNs were included in the study using a purposive, theoretical sampling technique. The study participants ranged in age from 23-61, with a range of 1 ½ to 24 years nursing practice. Data collection consisted of an audio-taped interview of each participant.

**RESULTS:** Data were analyzed using constant comparative analysis. Axial coding was used to explore relationships among the conceptual themes, which yielded four separate, yet interrelated domains of caring characteristics (e.g., knowing, connectedness, intent, and integrity). Within these domains, 23 categories of caring characteristics emerged. The domain of intent was identified as the central domain, representing one's core capacity for caring. This domain includes possessing a positive attitude, positive intent, kindness, compassion, concern, consideration, desire and willingness, perceived obligation or duty to serve God and others, hope, and trust. The domain of integrity includes honesty, respect, humility, and courage. The domain of connectedness includes connecting with others, temporality, and open-mindedness. The domain of knowing specifically addresses nurse knowing as it relates to caring and subsumes the categories of experiential knowing, self-knowing, relational knowing, and shared knowing.

**CONCLUSIONS:** Centered upon one's intent to act in caring ways, the theoretical model is representative of the nurse caring characteristics explored. Possessing a positive intent to be caring directly affects and is affected by one's integrity, a feeling of connectedness, and one's knowing of the other.

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## **INTERPROFESSIONAL COLLABORATION ON FAMILY HEALTH TEAMS: EXPLORING HEALTH CARE PROFESSIONALS' EXPERIENCES ON 'THE TEAM'**

Jennifer Beales, Zubin Austin

The University of Toronto

**INTRODUCTION:** The experiences of health care professionals working on family health teams remain undocumented and relatively unclear.

**PURPOSE:** This poster outlines the development of an exploratory study, which examines interprofessional communication and collaboration in family health centres, and explores the evolving culture of professions in these settings

**METHODOLOGY:** This study will be carried out among 2-3 Ontario family health teams. Using an ethnographic approach, a researcher will spend up to 6 hours per week, spanning a four-week period, with each team. During this time, the researcher will observe, shadow, and informally interview members of the family health team. Data will be collected in the form of handwritten field notes, which will be entered electronically into NVivo, a qualitative data analysis software program. All observation and interview data will be coded for themes by the researcher, then reviewed, verified, and refined iteratively by a research associate.

**RESULTS:** Obstacles are inherent in the research process and this poster identifies the barriers and facilitators in developing an ethnography of health care professionals working in primary care settings, specifically on family health teams. Themes identified for discussion relate to access, and environment (geography, special distribution, and workload).

**CONCLUSIONS:** Findings are relevant given the importance of primary care reform in Canada today and the pivotal role that all health care professionals will play in this health human resource reform. We believe that this approach, in conjunction with the review of artifacts, the use of semi-structured one-on-one interviews and participant diaries will allow for development of an ethnography of a family health team, and shed insight into the evolving culture of professions.

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**OPTOMETRIST IN COURT: DEVELOPMENT AND SUMMATIVE EVALUATION OF AN INNOVATIVE EDUCATIONAL PROGRAM**

N. Scott Gorman, O.D., M.S., Ed.D., Kathy Cerminara, J.D., LL.M., J.S.D., Vanessa Morales (Optometric Student), Dinanga Mulumba (Law Student)

Nova Southeastern University

**INTRODUCTION:** Optometric students learn about medical recordkeeping, diagnosis and treatment, and the role of other health care practitioners. However, they do not participate in activities that give them experience in the legal consequences of poor recordkeeping, misdiagnosis, and failure to refer.

**PURPOSE:** By immersing students in the management of a patient and subsequent malpractice trial, factors that contribute to increased risk for medical malpractice will be demonstrated. Following their participation, students will develop a heightened sensitivity to the need to keep accurate and complete medical records, properly diagnose and manage patients' conditions, and make timely referrals to other health care practitioners when appropriate.

**METHODOLOGY:** An explanatory single case study using an embedded case study design will be employed. An opinion survey will be administered to the subjects to determine the value of the program. A pretest and posttest will be administered to assess changes in knowledge about legal issues surrounding medical malpractice. A summative evaluation will be performed utilizing the theory-based CIPP Model for Evaluation.

**RESULTS:** Yin's explanation building technique will be used to analyze the case. HyperRESEARCH" v2.6, a qualitative analysis software program, will be used to assist in data analysis. Descriptive statistics will be utilized to analyze the results of the opinion survey. A dependent samples t-test will be used to analyze the pretest and posttest data. Educational process and product achievement will be measured, interpreted, and judged utilizing the CIPP Evaluation Model.

**CONCLUSIONS:** To the best of the researchers' knowledge, no other optometric school has immersed optometric students in a medical malpractice environment. Neither has any health care discipline rigorously evaluated this type of program. It is important to determine if the program is valuable to the student, if it has merit, and if the program requires modification to meet its objectives.

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**PHARMACY EDUCATION IN THE 21ST CENTURY: TEACHING STUDENTS HOW TO PRESENT SCIENTIFIC INFORMATION.**

Arce-Malave, Lillian, Clark, Michelle A.

Nova Southeastern University

**INTRODUCTION:** The Mission of our College of Pharmacy (COP) is to educate pharmacy professionals who will address the drug-related needs of society. To maintain professional competency, students must be able to learn, identify, and analyze emerging health-related issues, particularly with respect to pharmaceutical products that may impact patient-specific therapeutic outcomes.

**PURPOSE:** To train pharmacy students, to retrieve, analyze, and interpret the professional, scientific, and lay literature in order to provide quality drug information to patients, their families, and health care providers.

**METHODOLOGY:** Pharmacy students enrolled in the pharmacotherapy course (PHA 6630) conducted a retrospective study on therapeutic agents and presented their projects as a poster at the NSU College of Pharmacy - Poster Night. Students were assigned research topics that were provided by faculty members. Faculty members became student mentors, guiding them through the research process, while complying with set guidelines. Faculty members or pharmacists from the community evaluated and graded the posters.

**RESULTS:** Students were taught how to perform scientific literature searches and learned how to prepare posters. Students also learned how to write quality research papers and how to orally present research findings.

**CONCLUSIONS:** The pharmacy students were trained how to research therapeutic issues and how to present the findings to their peers. Moreover, their oral skills, written communication skills, and their self-confidence were improved. These activities also introduce the students to procedures involved in submitting, preparing, and presenting posters at professional meetings or conventions.

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## **SLEEP MEDICINE EDUCATION BENEFITS FUTURE HEALTH CARE PROFESSIONALS**

Cheryl C. Purvis, Ph.D.,

Nova Southeastern University

**INTRODUCTION:** Sleep disorders affect 70 million Americans. Over 40% of adults report disturbed sleep. Sleep education is crucial for future health care professionals.

**PURPOSE:** Sleep education has been assessed in allopathic medical students. However this study focuses specifically on knowledge of circadian rhythm sleep disorders in osteopathic medical students.

**METHODOLOGY:** Health professions students attending a seminar (n=55) entitled "Catching Some Z's and Making the Grade" were evaluated. Participants took a pre-test and a post-test to assess how much information they retained. Individuals were given a pencil and Scantron. Five questions were projected and read aloud. Participants chose their answer from choices (A-E). After the presentation, the same questions, with answer choices rearranged, were projected and read aloud.

**RESULTS:** Pre-test: 41% of participants answered only one or two questions correctly. Post-test: 73% of participants answered four or five questions correctly. Comparison of pre-test and post-test reveals a significant increase in the percentage of correct responses on the post-test. The format of questions allowed differentiation between individuals who retained the maximal information and those who mastered major points, but missed minor ones.

**CONCLUSIONS:** This study compared the baseline knowledge of sleep medicine in health professions students to knowledge acquired through a seminar. The results indicate sleep education seminars are beneficial to future health care professionals and provide evidence supporting the need for sleep education in the curriculum.

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## **SYNCHRONOUS DISTANCE INTERACTIVE VIDEO TELECONFERENCING FOR PHYSICIAN ASSISTANT EDUCATION**

Steven Weinreb, M.D.,

Barry University, Miami Shores, FL

**INTRODUCTION:** The Physician Assistant (PA) Program forms a part of the School of Graduate Medical Sciences at Barry University in Miami Shores, Florida. After successful completion, students receive a PA Certificate and a Master of Clinical Medical Science degree. Beginning in 2002, a specific need for a PA program was identified within the urban region of Pinellas County on the Gulf Coast of Florida. Timeline: " 2003: Program planning for expansion to University Partnership Center at St. Petersburg College. " 2004: CASPA applications process; videoconferencing equipment purchase and testing. " 2005: First class of 24 students enrolled.

**PURPOSE:** To describe the technologic and pedagogic challenges involved in the development of an expansion program/distance learning experience for physician assistant education using interactive synchronous live video teleconferencing to provide an equivalent educational experience.

**METHODOLOGY:** " Standardization of online testing procedures for both campuses. " Use of student course grades to determine academic success. " Use of the Physician Assistant Clinical Knowledge Rating and Assessment Tool (PACKRAT) to objectively measure equivalency of two programs. " Use of student survey instruments to measure student satisfaction.

**RESULTS:** Equivalency of student course grades on both campuses. Equivalency of PACKRAT scores after one year. Good student acceptance of distance learning program.

**CONCLUSIONS:** Interactive synchronous video teleconferencing is a successful method for the development of a distance learning program for physician assistant education. Educational equivalence has been demonstrated using objective measurements of student performance.

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## **THE EVOLUTION OF ACADEMIC SCHOLARSHIP**

Shilpa J. Register, OD, MS, FAAO,

Southern College of Optometry

**INTRODUCTION:** The definition of scholarship ranges from publications to leadership. The traditional model of scholarship includes publications with significant impact on the academic community. Historically, this definition has been best applied to researchers and didactic teachers. In recent years, clinical and educational scholarship has been evolving and is yearning to be comprehensively defined and applied. Scholarship has proven to be the most abstract criteria when evaluating faculty for promotion, especially for clinical faculty. Other healthcare fields have also evaluated their definition of scholarship to ensure that it encompasses all modes of scholarship and is applicable to all teachers.

**PURPOSE:** This poster will serve to present various definitions of scholarship in healthcare fields and its applications to optometry. It will also provide the means necessary to achieve each type of scholarship using guidelines and examples. In addition, there will be guidelines and suggestions regarding how to change the culture of academia to align with changes in scholarship.

**METHODOLOGY:** A comprehensive literature review was performed to evaluate the definitions and examples of scholarship in healthcare and education.

**RESULTS:** Traditional scholarship is defined by publications that represent significant research in academics. However, scholarship can also involve engagement, leadership and impact especially when it crosses disciplines and bridges gaps between communities.

**CONCLUSIONS:** The data presented shows a large variance in the definition of scholarship. It should be tailored to the individual faculty member according to his/her professional goals and specialty. It is our responsibility to serve our local, national, international, and institutional community through scholarly activities. We must also ensure that our institution's definition of scholarship is applicable to all faculty members and is revised periodically as professions continue to progress.

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**THE RELATIONSHIP BETWEEN PHYSICAL THERAPIST STUDENTS' SCORES ON THE  
CPI DURING THE NEUROREHABILITATION ROTATION AND NEUROSCIENCE  
LECTURE GRADES**

Haskins AR, Frazier NQ, White KD, Barrett CH

Florida International University, Miami, Florida

**INTRODUCTION:** Students often view the academic environment and the clinical setting as two separate arenas and assume that grades achieved in the classroom are not indicative of how well they will perform in the clinical setting.

**PURPOSE:** The purpose of this study was to determine if there is any relationship between the scores given to physical therapist students on the Clinical Performance Instrument (CPI) and the grades that are received in school.

**METHODOLOGY:** The records of 55 graduate physical therapist students were obtained for two academic years. Neuroscience grades and CPI scores during the neurorehabilitation internship were collected for 55 students. CPI scores examined included midterm and final scores for CPI skills 10 through 14 (screening, examination, evaluation, plan of care and interventions) and total midterm and final CPI scores. Pearson's correlation coefficient ( $\alpha = .05$ ) was used to test the data.

**RESULTS:** There was a low correlation between: neuroscience grades and total midterm CPI score ( $r=0.382$ ); neuroscience grades and total final CPI score ( $r=0.400$ ); neuroscience grades and the midterm score for items 11 through 14 at midterm; and, between neuroscience grades and final score for items 10 through 14 (correlation coefficients ranged from 0.295 to 0.431).

**CONCLUSIONS:** Results indicate that there is a correlation, albeit low, between neuroscience grades and CPI scores. The limitations of this study include that the sample size is low affecting the validity of the results, and that all of the subjects were obtained from one academic institution, thus the results cannot be generalized to other populations.

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**USE OF THE PHYSICAL THERAPIST CLINICAL PERFORMANCE INSTRUMENT:  
ACCEPTANCE BY CLINICAL INSTRUCTORS AND SELF-REPORTS OF ADHERENCE**

A.R. Haskins, E. Macey, N. McGraw, C. Price

Florida International University, Miami, Florida

**INTRODUCTION:** Many physical therapist educational programs utilize the Clinical Performance Instrument (CPI) to document clinical instructors' (CIs) assessment of students' clinical performance. Consistency in usage and a positive opinion of the CPI are important in promoting accurate communication among CIs, academic faculty, and students.

**PURPOSE:** The purpose of this study was to evaluate CIs' acceptance of and adherence to the CPI.

**METHODOLOGY:** One hundred and fifty CIs at 48 clinics were asked to complete a survey that included items on CI demographics, and on adherence to and acceptance of the CPI.

**RESULTS:** Thirty-nine surveys were completed. The respondents included 15 males (38.5%) and 24 females (61.5%) with an average of 6.7 years experience as CIs (SD=6.1 years, range 6 months □ 23 years) and 4.3 years using the CPI (SD=3.1, range 6 months □ 10 years). Ninety-four percent expressed either a positive or very positive opinion of the CPI. Seventy percent of the respondents reported at least minimally consistent adherence to instructions.

**CONCLUSIONS:** The CPI was regarded as a useful tool by most of the respondents, and most reported using the instrument according to its instructions. The low return rate is a limitation of this study, as those CIs who returned the surveys could have been those who were most satisfied with and knowledgeable about the CPI.

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## **VOLUNTARY FACULTY EVALUATION AND GENERATIONAL LEARNERS**

David L. Thomas, MD JD, Jacqueline Thomas, D.O.; Scott Greenberg, D.O.; Danielle Thomas, D.O.

Department of Surgery, NSU-COM

**INTRODUCTION:** Various authors describe learning patterns of individuals associated with their age groups. These have been described as generational patterns of learning. Although various schemes of measuring an educator's approach to a learner's generation have been discussed, none have done this in the medical college setting where the learners may span more than one generation. This paper presents one classification of generational learners and an approach for evaluating voluntary faculty in a non-threatening manner to determine their overall effectiveness and their effectiveness at approaching different generational learners. A simple matrix which can be easily memorized is discussed as the tool for developing the data and assessing the instructors.

**PURPOSE:** This paper presents one classification of generational learners and an approach for evaluating voluntary faculty in a non-threatening manner to determine their overall effectiveness and their effectiveness at approaching different generational learners.

**METHODOLOGY:** A simple matrix which can be easily memorized is discussed as the tool for developing the data and assessing the instructors.

**RESULTS:** Various authors describe learning patterns of individuals associated with their age groups. These have been described as generational patterns of learning. Although various schemes of measuring an educator's approach to a learner's generation have been discussed, none have done this in the medical college setting where the learners may span more than one generation. This paper presents one classification of generational learners and an approach for evaluating voluntary faculty in a non-threatening manner to determine their overall effectiveness and their effectiveness at approaching different generational learners. A simple matrix which can be easily memorized is discussed as the tool for developing the data and assessing the instructors.

**CONCLUSIONS:** ...It would appear that generational issues are critical to address in teaching medical students and the second year medical student class spans more than one generation, however there seems to be no effort on the part of the voluntary instructors to address their differing learning styles.

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## **WHAT WORKS IN THE CLASSROOM? A MODEL FOR EVALUATING INSTRUCTIONAL METHODS IN HEALTH PROFESSIONS EDUCATION**

Douglas M. Mitchell, Ph.D., OTR/L, Cynthia L. Creighton, Ph.D., OTR/L

Barry University, Miami Shores, Florida

**INTRODUCTION:** Teaching, like clinical practice, should be informed by research evidence. However, a recent government report concluded that education lags behind other fields in rigorous evaluation of methods. Health professions education is no exception: The literature includes dozens of descriptions of innovative teaching strategies (e.g., case method, web-based tutorials, journal writing, instructional games), but effects on students' learning are rarely reported. Lack of time and tools are the barriers that most often prevent professionals from adopting an evidence-based model. Supports within the organization such as encouragement and practical resources, facilitate change.

**PURPOSE:** The purpose of this poster is to share our experience with building an organizational culture that supports evidence-based teaching, in a master's entry-level occupational therapy program.

**METHODOLOGY:** A lively discussion in curriculum meeting led us to develop specific questions about "what works" in the delivery of instruction to adult learners. We trained staff to assist faculty with literature searching, and collected resource materials about teaching methods and evaluating educational outcomes. We used the U.S. Department of Education evidence standards and reporting guidelines for program evaluation research to develop procedures and forms for routinely monitoring, comparing and documenting the effects of teaching/learning activities in our courses.

**RESULTS:** Faculty have applied the model in a distance-education course and in clinical skills classes on campus. Findings will guide our decisions about future course and curriculum development.

**CONCLUSIONS:** Given supports within the organization and practical resource materials, faculty can overcome barriers to using and creating research about teaching.

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# **AN OCCUPATIONAL THERAPY APPROACH TO EDUCATING MIDDLE SCHOOL STUDENTS ABOUT PREVENTING SUBSTANCE ABUSE**

Beth Ginsberg, Sarah Ransdell

Department of Occupational Therapy Nova Southeastern University

**INTRODUCTION:** The increasing amount of adolescents abusing controlled substances is leading to increased adoption of preventative techniques. Complimentary mental health professions that work with adolescents, such as psychologists, social workers, nurses, and teachers, all apply related preventative treatment approaches. According to Kaminer (2001), the use of family therapy, motivational strategies, and cognitive-behavioral techniques are most effective for reducing substance usage and other related issues amongst adolescents. As stated by Naimah (1998), there is success related to substance use prevention when using client-centered approaches and incorporating peer group therapy, cognitive-behavioral approaches, problem-solving and coping skills training, and social skills training. Within the scope of practice, occupational therapy in mental health settings also can implement services via the cognitive-behavioral frame of reference, as well as incorporating family education and motivational strategies into treatment objectives. Occupational therapy utilizes a client-centered approach and incorporates problem-solving, coping skills, and social skills into treatment goals. Related mental health professions are compatible with occupational therapy by incorporating these techniques to make preventative treatment interventions more effective.

**PURPOSE:** The purpose of the study is to develop a longitudinal school-based program for educating middle school students about preventing substance abuse.

**METHODOLOGY:** This study will be designed for the Broward County school system middle school (grades 6-8). The program will be school wide; therefore all students attending the school will be involved in the preventative treatment program. Activities will include a craft project (designing and putting together a journal for them to keep), a team activity (role playing scenarios to practice prevention), and games (such as a newly designed substance abuse jeopardy where they choose related categories to answer). After the main activity is completed, then processing questions will follow. These questions are designed to help the students identify the main purpose and goal of the session, the generalizability of the activity and strategies employed, the application to real life scenarios, and so on. Processing questions will also facilitate individual realizations, group similarities and differences, and likes/dislikes about the session or topic at hand. For example, such questions could include: How did you feel acting out this scenario? What did you learn from the activity? How can practicing these skills help you with future prevention? What have you learned about yourself or others? Today I realized that (fill in the blank), and so on. Processing questions are designed to be open-ended, facilitate individual self-reflection and group discussion. Processing the activity should be lengthy as evidenced by using a cognitive-behavioral approach. Then a summary of the session, key points, and effective strategies should be re-stated. The tone should also be set for the next session (general topic), and homework assignments should be re-explained if necessary.

**RESULTS:** The results of the study will be a well-defined literature-based educational program for teaching middle school students about preventing substance abuse.

**CONCLUSIONS:** Characteristics that are most beneficial for preventing substance abuse in this population will be discussed.

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# **WHAT ARE THE BEST ASSESSMENT TOOLS FOR DETERMINING THE IMPACT OF MAINSTREAMING ON SOCIAL INTERACTIONS FOR PRESCHOOL CHILDREN WITH VISUAL IMPAIRMENTS?**

Tami Huston, Sarah Ransdell

Department of Occupational Therapy Nova Southeastern University

**INTRODUCTION:** Most preschool children with normal vision learn to process information perceived from a variety of contexts by playing with parents and peers at home, school, or in the community. As children develop from infancy, they express social exchanges by smiling and following parents with their eyes. Teplin (1995) writes that vision enables infants to acquire information from multiple locations at a range of distance and is a means for them to organize information received from their other senses. As infants become toddlers, they begin to express more complex interactions that are either verbal or non-verbal. In early childhood, interaction and play with peers take on increasing importance and children become social beings for identifying individual self (Case-Smith, 2005). According to research, typical children whose attachments to their mothers are rated as secure tend to be more responsive to other children in childcare settings. They are also more curious and competent (Jacobson & Willie, 1998; Youngblade & Belsky, 1992). On the other hand, young children with visual impairments are limited and reluctant to explore vast environments to stimulate social engagement. According to Erwin, these children have difficulty interpreting nonverbal messages and monitoring their own behavior during social encounters (Ferrell, 1986; Scott, 1969). Social encounters are even more important for preschool aged children with visual impairments because it encourages relationships to be present for positive social interactions to occur among daily activities in a mainstreamed society. Mainstreaming includes integration into regular school classes and incorporation into a prevailing group. By mainstreaming the engagement of daily routines, Recchia (1997) says that children with visual impairments can learn by exploring objects in their environment and develop behavioral characteristics that can enrich language and social skills.

**PURPOSE:** The three main purposes of this study are to address the following. What research designs will be best suited for deciding if mainstreaming can improve the social interactions of young children with visual impairments? More specifically, what type of questionnaire items best assess parent satisfaction with the social interaction skills of their visually impaired children? And what type of observation scheme is needed to assess social interaction adequately?

**METHODOLOGY:** This study compares a range of techniques for assessing good design. A parent questionnaire will be evaluated and is based on a likert scale that will contain twenty questions about the parent's satisfaction with the different types of social interactions between their children, self, others, and the environment. The parents will also be asked to partake in a short interview to further evaluate the understandings of social interactions and to identify misunderstandings or limitations that are affecting mainstream interactions. And an observation scheme will be evaluated.

**RESULTS:** Results of an evaluation of a parent satisfaction questionnaire, an observation scheme, and an interview protocol will be presented.

**CONCLUSIONS:** The best research design for testing the impact of mainstreaming on limited vision preschool children will be described.

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## **WIRELESS IMPLEMENTATION: UBIQUITOUS COMPUTING IN LEARNING ENVIRONMENTS**

Lyndon Godsall, Jared Bucker

Nova Southeastern University

**INTRODUCTION:** The introduction of a WLAN at a local, affiliated secondary school opened up numerous possibilities for participants to experiment with various teaching modalities using this technology.

**PURPOSE:** What reaction do teachers have to unlimited student access to ubiquitous computing? Does the organization of classrooms change when opportunities for ubiquitous computing arise? Do teachers and students change their views of teaching and learning when opportunities for ubiquitous computing are provided? What are the students' expectations and perceptions of teachers in a situation when opportunities for ubiquitous computing are provided?

**METHODOLOGY:** Technology Support (TS) trained all classroom teachers a variety of aspects of wireless technologies. In 2004, TS gave more than 60 workshops throughout the school and trained more than 40 teachers. Team leaders supplied one-to-one assistance, small-group support, team teaching opportunities, and targeted workshops. TS implemented new technologies such as the tablet PC, and, introduced teachers to United Streaming and Pinnacle video stream.

**RESULTS:** This investigation identified three overall positive themes and the technologies offered many benefits.

**CONCLUSIONS:** Teachers were comfortable with the technology; (b) did not lack knowledge of and access to instructional design in the context of teaching and learning; and (c) perceived the benefits of the technology use.

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## WORKSHOPS

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### **COMPUTERIZED ITEM BANKING AND TESTING: AN A+ FOR STUDENTS AND FACULTY**

Judy Banks Campbell ARNP, Ed.D.,

School of Nursing Palm Beach Atlantic University West Palm Beach, Florida

**INTRODUCTION:** Dr. Campbell is a recognized leader in nursing and healthcare in the specialty of computerized classroom testing. She has presented at numerous national and international nursing, education and technology conferences on this topic and has direct experience developing, facilitating and evaluating computerized testing in laboratories at several different colleges and universities.

**PURPOSE:** At the completion of this interactive session the participant will be able to: 1. state advantages, disadvantages, issues and outcomes involved in using computerized item banking and classroom testing. 2. experience the fun of creating a test pool, and a test using computerized testing software. 3. discuss how to change the testing paradigm in his/her institution to include concepts such as open testing, the honor system, online testing and computerized feedback.

**METHODOLOGY:** The session will be an overview followed by an interactive demonstration of computerized testing software in which participants will develop test items, make a test, take the test and receive feedback. Question and answer session will be provided.

**RESULTS:** The content will be the subject of computerized testing, including advantages and pitfalls of computerized testing, and strategies for successful implementation in a health education setting.

**CONCLUSIONS:** It is anticipated that participants will leave knowing the critical steps necessary to design and implement a computerized testing program in their respective healthcare disciplines. Faculty teaching in disciplines with computerized licensure exams will have useful information about integrating computer-based testing in their classrooms.

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## **DEVELOPING AND IMPLEMENTING STANDARDIZED EVALUATION METHODS IN PHYSICAL ASSESSMENT**

Linda M. Spooner, PharmD, BCPS, Abir O. Kanaan, PharmD, Karyn M. Sullivan, BSP, MPH  
Massachusetts College of Pharmacy and Health Sciences, School of Pharmacy-Worcester/Manchester,  
Worcester, MA

**INTRODUCTION:** Dr. Spooner has taught physical assessment skills to pharmacy students since 1999. She has been extensively involved in the development of physical assessment evaluation tools since 2001, when she became a course coordinator. All 3 presenters currently serve as course co-coordinators for Clinical Laboratory and Physical Assessment, a 2-semester core course in the MCPHS Doctor of Pharmacy curriculum. The presenters bring a variety of experiences in teaching and assessing hands-on skills.

**PURPOSE:** This hands-on session will allow attendees to participate in the performance of multi-step physical assessment skills (including blood pressure measurement and the eye examination) in a simulated laboratory setting. Attendees will apply standardized assessment techniques to determine if they have mastered the skills demonstrated during the session. Attendees will also have the opportunity to develop their own evaluation instruments that they may utilize in their own laboratory courses.

**METHODOLOGY:** This workshop session will utilize lecturing, role-playing, audience participation, and discussion to illustrate the importance of the development of standardized assessment tools in the physical assessment laboratory setting.

**RESULTS:** This workshop will begin with a background lecture illustrating the concepts of hands-on teaching and the challenges faced in providing consistent, standardized evaluation of students' performance. The presenters will then teach a variety of physical assessment skills to the attendees, allowing them the opportunity to practice the skills on one another using equipment provided by the presenters. The presenters will provide examples of evaluation instruments designed to assess the skills taught during the workshop session, allowing participants to evaluate their performance. The presenters will assist the attendees in the development of assessment tools they can utilize in their own laboratory courses, and the session will conclude with a discussion of the applicability of these evaluation tools and the challenges faced in their implementation.

**CONCLUSIONS:** Following completion of this workshop, participants will have gained insight on novel methods for consistently evaluating students' performance on a variety of complex physical assessment skills through discussion with other attendees and hands-on participation. In addition, attendees will develop assessment tools which they can apply to their own laboratory courses.

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## HOW TO CRITICALLY EVALUATE DIDACTIC COURSE EXAMINATIONS

Ruth A. Trachimowicz, Ph.D., O.D.

Illinois College of Optometry

**INTRODUCTION:** Chairperson of the Committee to Review Examinations at the Illinois College of Optometry and published an article on this topic in Optometric Education.

**PURPOSE:** To provide guidelines for writing a multiple choice exam that addresses exam content & construction. The exam review form developed at ICO will be discussed in detail. This includes how to complete the form and interpret the information it contains so that faculty can see the quality and overall effectiveness of their exams and, where needed, make the necessary changes to improve the quality of their exams and/or lectures in subsequent years.

**METHODOLOGY:** Lecture presentation interspersed with interactive exercises.

**RESULTS:**  Presentation on writing multiple choice items. The three skill levels the National Board of Examiners in Optometry uses in developing its test items and fundamental guidelines for writing good test items will be emphasized.  Interactive exercise - participants are asked to identify flaws in test items & how the flaws might be corrected to improve the items.  Presentation on statistical item analysis (such as Par Score) and its uses. Includes discussion of discrimination index, reliability coefficient & use of enhanced item analysis.  Interactive exercise - provided with test items and their corresponding item analyses, participants will be asked to determine which items are statistically flawed and how the items might be corrected for use on future exams or discarded.  Group discussion of an exam (with its item analysis) emphasizing the following factors: Exam too easy or too difficult? (How determined? How does instructor rationale influence the easiness of an exam?). How discriminating are the test items? How many items needed adjustment because of statistical flaws? Method of adjustment appropriate? Does exam content match the instructor's emphasis in class?

Interactive exercise - participants will break into small groups and evaluate an exam using the form developed at ICO.  Presentation: How does one construct a working Committee to Review Exams?  Interactive exercise - If time remains, participants could be given a completed evaluation form & corresponding exam and asked to state how they would use the data presented to modify their exam or course for next year.

**CONCLUSIONS:** Encourage the use of similar exam reviews at other colleges to improve both exam construction by faculty and as a tool to evaluate teaching in addition to student evaluations.

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## **MODELING PROFESSIONALISM IN THE ONLINE ENVIRONMENT (OLE)**

Peter G. Holub, DPM, MS, Judith A. Parker OTD, OTR/L

Nova Southeastern University

**INTRODUCTION:** Peter G. Holub DPM, MS- Assistant Professor - Online educator for 5 years in Health Sciences -specialty areas include health care ethics, scientific writing, and kinesology Judith A. Parker OTD, OTR/L-Associate Professor -Online teaching and working in environment for over 6 years -educator at masters, doctoral and clinical doctoral level in occupational therapy and health sciences Both currently enrolled in Doctorate in Computing Technology in Education at Nova Southeastern University

**PURPOSE:** The participants will be able to: 1. Demonstrate a basic understanding of the importance of adapting pedagogy to the online environment. 2. Recognize key professional behaviors that can be modeled in the online environment 3. Identify tools that can be used in their own teaching practices to evaluate professionalism in the online environment

**METHODOLOGY:** 1. Lecture 2. Case Studies 3. Self exploratory activities 4. Group activities

**RESULTS:** This workshop will use a range of techniques to support participants active learning of methods to use modeling, as a faculty member teaching in the online learning environment, to encourage and monitor the development of professionalism by health care students.

**CONCLUSIONS:** Participants will learn to design online course content to reflect modeled professional behaviors.

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**MULTI-DIMENSIONAL EVALUATION OF BIOTERRORISM/ALL-HAZARDS  
PREPAREDNESS EDUCATION: A 21ST CENTURY PHENOMENON**

Jennie Lou, MD , Leonard A. Levy, DPM, MPH

Nova Southeastern University, College of Osteopathic Medicine Center on Bioterrorism/All-Hazards  
Preparedness

**INTRODUCTION:** Dr. Lou: Coordinator Bioterrorism/All-Hazards Research, Professor of Public Health/Professor of Internal Medicine Dr. Levy: Associate Dean for Education, Planning and Research, Director Center on Bioterrorism/All-Hazards Preparedness Professor of Family Medicine/Professor of Public Health

**PURPOSE:** Be able to evaluate knowledge, skills, and interpersonal abilities with casualties and team members in all hazards events.

**METHODOLOGY:** Employment of a Casualty Objective Structured Clinical Examination

**RESULTS:** The Casualty Objective Structured Clinical Examination (COSCE) is a new unique method to determine the effectiveness of health care providers to respond to the special needs of "victims" of man-made and natural disasters. Standardized trained "victims" are used to help assess knowledge and concepts as well as technical and interpersonal skills. These interpersonal skills include interactions of health care providers with victims and with each other. This project is supported by a grant from the U.S. Health Resources and Services Administration.

**CONCLUSIONS:** In addition to the traditional disciplines in which health care providers have to be competent, the changing world necessitates that they also need to know how to respond to victims of acts of terrorism and to the increasing number of natural disasters. While written examinations may measure knowledge and concepts and disaster scenarios are useful training exercises, scenarios themselves are not psychometrically sound evaluation instruments. The COSCE is a standardized, psychometrically sound way to measure knowledge, technical skills, and interpersonal abilities.

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## **TRANSFORMING HEALTH PROFESSIONS COURSES TO BECOME MORE LEARNING-CENTERED**

Andrea J. Reaka and Cathy R. Santanello

Southern Illinois University Edwardsville (SIUE), School of Pharmacy

**INTRODUCTION:** Dr. Reaka is a member of the e-Learning Special Interest Group of the American Association of Colleges of Pharmacy and a member of the Educational Technologies and Instructional Strategies (ETIS) committee at SIUE. Dr. Santanello is the Director of Instructional Strategies and a member of ETIS at SIUE. She has published and presented at various national conferences on topics such as classroom assessment techniques, case-study teaching, the power of laughter in the classroom, etc.

**PURPOSE:** In this workshop, the presenters will demonstrate various active learning strategies that will help shift the instructors' roles to facilitate better student learning outcomes (see content overview). The facilitators will show how they have increased energy levels in class while embedding valuable assessment techniques.

**METHODOLOGY:** The facilitators will utilize a PowerPoint demonstration as a guide to lead participants through various active learning strategies. Reaka and Santanello will encourage questions and discussion throughout the workshop.

**RESULTS:** Different methodologies will include: Personal Response Systems, Immediate Feedback Assessment Techniques, classroom assessment strategies, and interactive PowerPoint discussions/activities. Each technique will be demonstrated and followed by a discussion.

**CONCLUSIONS:** Methods of assessment of student-centered learning that can be easily implemented in participants' courses will be shared.

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## **USING ACCREDITATION STANDARDS FOR ASSESSMENT: ONE PROGRAM'S EXPERIENCE**

Gail Bass Ph.D, OTR/L, Debra Byram-Hanson MA, OTR/L; Jan Stube Ph.D., OTR/L; & Sonia Zimmerman MA, OTR/L, FAOTA

University of North Dakota

**INTRODUCTION:** All are currently faculty in the Occupational Therapy Program at the University of North Dakota and are actively involved in developing and carrying out the program assessment

**PURPOSE:** Participants will: 1) appreciate the value of commitment to assessment of student learning as a core institutional process. 2) understand principles of assessment and develop awareness of program assessment models used in allied health programs in higher education. 3) be introduced to the processes used by the University of North Dakota Occupational Therapy Department to develop an assessment plan based on university and professional accreditation standards. 4) identify processes that would assist in planning for their own program assessment.

**METHODOLOGY:** A combination of methods will be used including lecture, small group discussion, hands-on learning activities and written materials.

**RESULTS:** Assessment is a □ systemic and systematic process of collective inquiry anchored in institutional and professional values and collective principles of commitment □ (Maki, 2004, p. xvii). This presentation will address the value of assessment of student learning at institutional and departmental levels and provide an overview of assessment models suitable for use in allied health programs at the higher education level. External mandates for assessment processes and the evolution of the assessment of outcomes of student learning at the University of North Dakota will be shared. The importance of collaborative partnerships at both the University and departmental level proved to be key components of program assessment planning. The speakers will offer their experiences in developing an assessment plan based on university and professional accreditation standards for the University of North Dakota Occupational Therapy Program. A sequential plan for development and examples of assessment materials generated will be presented. Participants will have an opportunity to engage in hands-on activities to assist them in planning their own program assessment. Maki, P. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing, LLC.

**CONCLUSIONS:** Participants will appreciate the impact of institutional context on the development of program assessment plans. Collaborative partnerships in early stages of program assessment development will be recognized for their potential to both inform and facilitate departmental planning. Participants will benefit from an introduction to specific processes used by an allied health program in preparation for implementation of program assessment in their own settings.

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## **USING UNIVERSAL INSTRUCTIONAL DESIGN STRATEGIES TO ENHANCE STUDENT LEARNING**

Nancy Sharby, Susan Roush

Northeastern University University of Rhode Island

**INTRODUCTION:** Nancy Sharby PT, MS Associate Clinical Professor Susan Roush PT, PhD Associate Professor

**PURPOSE:** The learner will be able to: Describe the principles of UID; Value the application of UID to improve teaching and learning; Modify current teaching strategies to incorporate UID; Expand repertoire of teaching skills

**METHODOLOGY:** This will be a 2 hour interactive session. For the first 45 minutes we will describe the principles of Universal Instructional Design and provide evidence of its efficacy in improving student outcomes. This will be followed by interactive group activities where the attendees will work on student case scenarios and practice modifying course syllabi. These discussions will focus on problem solving and developing applications that can be used in existing courses.

**RESULTS:** Universal Instructional Design is a natural outgrowth of the concept of universal design in architecture. The goal is to make the curriculum and courses accessible to all students. Some refer to this as making "curb cuts" in the classroom. We will present the eight principles of UID and discuss general strategies for its application to support the needs of diverse learners. We will address the needs of students whose first language is not English, culturally diverse learners, and students with various disabilities. Problem solving activities will facilitate the development of strategies that can be used by the attendees to modify and improve courses they are currently teaching.

**CONCLUSIONS:** Attendees will become more skillful teachers with a greater array of techniques to support the learning of diverse students.

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