

P-20 POSTER EXPO

September 23, 2009

- 1 Center for P-20 Engagement** **Marilyn Bellert** **P-20** **mbellert@niu.edu**

The new center provides a portal to NIU's knowledge, expertise, and resources for educational organizations, businesses, and community agencies. The Center supports engagement by facilitating a P-20 Network of volunteer collaborators; promotes NIU's impact as a leader among higher education institutions that invest in P-20 partnerships; and manages a P-20 engagement portfolio that extends NIU's teaching and learning environment through P-20 initiatives.
- 2 Illinois Honor Roll** **Paulette Bowman** **P-20** **pbowman@niu.edu**

The Illinois Honor Roll celebrates the accomplishments of exemplary Illinois public schools. Funded by the Illinois State Board of Education (ISBE) and produced at NIU, the Honor Roll acknowledged 989 schools in 2008.
- 3 Enhancing Multi-Literacies through Digital Story Creation** **Rhonda Robinson** **EDU** **rrobinson@niu.edu**
Kristin Brynteson **kbrynteson@niu.edu**

Emerging technologies have changed the way we as a society communicate and have increased the need for students to become proficient in multi-literacies including information literacy, visual literacy, and digital literacy. The goals of this project include collaboration with partnership teachers in the design, development, implementation, and assessment of a reading and writing unit that encourages art and technology integration as methods for developing multi-literacy skills.
- 4 NIU Collaborative on Early Adolescence** **Nina Mounts** **LA&S** **nmounts@niu.edu**

The NIU Collaborative on Early Adolescence (NIU-CEA) supports and enhances young adolescent learning and development in the academic, social, emotional, health, cultural, and civic areas of their lives. NIU-CEA will convene and engage university, school, and community partners to understand their shared needs, identify resources, and solve problems.
- 5 Center for the Interdisciplinary Study of Language & Literacy** **M. Cecil Smith** **EDU** **mcsmith@niu.edu**

CISLL is a regional and global interdisciplinary center for the study of lifespan language and literacy development across diverse populations and contexts. The Center is committed to engaging in basic and applied research in language and literacy; developing and applying innovative research methodologies, assessments, and interventions to solve complex language and literacy problems; identifying and promoting best practices in language and literacy education; and providing evidence-based outreach services that generate results.
- 6 Identity Work in Secondary STEM Education: Developing Teachers' Knowledge of Adolescent Identity Dev** **M. Cecil Smith** **EDU** **mcsmith@niu.edu**

Teachers can support adolescent students' personal and academic development through support for students' identity strivings. Identity work in secondary classrooms is a potentially powerful vehicle for improving students' motivation and academic engagement and achievement, but this work is not well understood. Schools need to balance demands for academic achievement with attention to meeting students' developmental needs. The poster summarizes current efforts to prepare northern Illinois teachers to engage in identity work with students.
- 7 Student Engagement in Science: The Science-In-The-Moment (SciMo) Project** **Jennifer Schmidt** **EDU** **jaschmidt@niu.edu**

The Science-In-The Moment (SciMo) Project is designed to help researchers and teachers understand how high school students feel when engaged in science learning contexts. Students in 12 different science classrooms provided multiple reports of their momentary experience in science. Classrooms were also videotaped. The information gathered will be used to inform science teachers how their students react to specific courses, content units, and instructional practices. The project also examines gender differences in students' science experiences.

8 The Social Transitions Program David Valentiner LA&S dvalentiner@niu.edu

The Social Transitions Program aims to reduce social anxiety to help students engage in school, speak in class, make presentations, and form friendships. This program has shown promising psychological and academic outcomes in a pilot evaluation. It is currently being implemented at NIU and is available for implementation at other institutions, including middle schools, high schools, and colleges and universities.

9 Interactive Illinois Report Card Harvey Smith IIRC hsmith@niu.edu

Since 2003, the Interactive Illinois Report Card website has provided comprehensive assessment reporting, instructional resources, improvement plans, and secure access to individual student test results and progress reports for the 869 districts and 4,000 public schools in Illinois. The central focus of the website is to deliver accurate, accessible, user-friendly, and timely school monitoring and instructional resources for teaching, learning, and accountability. IIRC is a partnership project of the Illinois State Board of Education and Northern Illinois University. <http://iirc.niu.edu>

**10 Data for School Innovation (DSI) Harvey Smith EDU hsmith@niu.edu
Stephen Wallace swallace@niu.edu**

Data for School Innovation (DSI) is a new NIU program that provides Illinois teachers with consolidated reporting and analysis of student assessment data to inform curricular and instructional practices. DSI offers two related services. We work with schools to assemble multiple sources of their assessment data into an online database with web-based information displays that teachers can access and utilize. Then, we help educators analyze the data to fine-tune teaching practices and interventions to improve instruction and learning.

**11 Reading Interventions: Impacting Laura Hedin EDU lhedin@niu.edu
Special Educators' Practice and
Students' Learning**

High school special educators in Downers Grove HS District will participate with Drs. Laura Hedin and Gregory Conderman in professional development activities targeting striving readers with identified disabilities. Teachers will implement reading interventions in both special education resource and co-taught science and history classes with the guidance of the NIU faculty. Changes in student performance on reading measures and observations of teachers' professional practice will be used to design and evaluate the program.

**12 Analysis of School Assessment Data Gary Baker LA&S gbaker@niu.edu
Using Pivot Charts**

One of the most powerful features of Microsoft Excel is its ability to create pivot tables and charts. Even so, it remains one of the least utilized features in academic settings. This poster illustrates how pivot charts can provide a dynamic looking-glass into assessment data on special needs groups, and additionally proposes that training in this technology should be integrated into teacher preparation programs as part of a TWS requirement.

**13 100 Males Preparing for a College Felicia Bohanon PreCollegiate fbohanon@niu.edu
Education Programs**

100 Males Preparing for a College Education helps African American and Latino males prepare for college. Offered in Aurora and Rockford, this program begins with students in middle school and works with them until they graduate from high school. The program offers after school tutoring, college readiness workshops for participants and parents, mentoring, college visits, and cultural enrichment activities. The four-week summer program includes academic classes in mathematics, science, writing, and literature, as well as sports and recreational activities.

**14 College Bridge Program Felicia Bohanon PreCollegiate fbohanon@niu.edu
Programs**

The College Bridge Program is designed to support underrepresented minority and economically disadvantaged students as they make the transition from high school to NIU. The goal of the program is to increase the retention and graduation rates of traditionally admitted students. Program participants attend a four-week summer program between junior and senior year of high school and an eight-week summer program between senior year and matriculation to Northern Illinois University. The program provides mentoring, college readiness workshops, campus visits, and assists students in developing a network of support that will connect them to the university community.

- 15 College to Careers Club** **Judy Cox-Henderson** **LA&S** **jcoxhenderson@niu.edu**
 The C2C or College to Careers program included 35 students in after-school clubs at Jefferson High School, and Flinn and RESA Middle Schools in Rockford District 205, plus summer camps at Rock Valley College and NIU. The purposes of the clubs were to spark and maintain interest in college, inculcate habits and behaviors that help students succeed, and explore careers. At the summer camps, students simulated a week in college, gained academic skills, and developed personal responsibility.
- 16 Into the Future Together** **Susan Callahan** **LA&S** **callsusan@niu.edu**
 This District 428/NIU partnership is creating a nationally recognized professional development school to be housed in the new DeKalb High School building scheduled to open in August 2011. The necessary changes in curriculum, teaching methodologies, and organizational arrangements will present transformational opportunities for both institutions as they work together to promote world-class student achievement. The partnership supports collaborative professional development for DHS and NIU faculty, shared research and dissemination of information, and superior preparation of pre-service teachers.
- 17 Reaching Out Through Art and Reading** **Chris Carger** **EDU** **ccarger@niu.edu**
 This program affords Elementary and Early Childhood program majors the opportunity to facilitate Read-Aloud events and related art activities with primary grade children in local schools. Emphasis is on working with children that are English Language Learners in order to expand their vocabulary and listening skills in their second language.
- 18 The PEERS Network: No Teacher Left Inside** **Robert Carter** **EDU** **carter@niu.edu**
 Recent and current research is focusing attention on the social, educational, and health issues our children face in an increasingly sedentary life style. Calls for a return to daily activity and frequent use of green spaces are on the rise and are manifested nationally as a movement dubbed No Child Left Inside. To address these issues, teachers need a repertoire of skills, knowledge, and practical experience supported by a network of trainers, peers, and administrators.
- 19 Class Meets Community: An Honors Seminar Experience** **Nancy Castle** **HHS** **ncastle@niu.edu**
 This University Honors Program seminar class paired teams of Honors students with community agency liaisons to work on one of four projects from the strategic plan of the DeKalb County Human Services Initiative. Projects included development of a quality of life assessment protocol, a meta-analysis of reports on service needs within the county, development of a matrix of services needed and services being met, and a funding source matrix.
- 20 Learning Mechanical Engineering While Playing a Video Game** **Brianno Coller** **CEET** **coller@ceet.niu.edu**
 Undergraduate students in the Department of Mechanical Engineering are learning core subjects within mechanical engineering by playing a car racing video game. Students do not play in the traditional way, joystick in hand, honing one's eye-hand coordination. Instead, they devise driving algorithms for the car. Our research shows that with the game students learn the material more deeply, and they are more engaged in their work.
- 21 NIU's Program in Certified Family Life Education** **Susan Bowers** **HHS** **DrBowers@niu.edu**
 Certified Family Life Education (CFLE) is offered within the School of Family, Consumer, and Nutrition Sciences. Within this program, students develop skills necessary for providing effective outreach to families in a variety of settings, including schools and community agencies. Upon completion, students are eligible to obtain the CFLE credential. The program covers ten basic areas, including relationships, sexuality, and family financial planning. Workshops and inservice programs by program staff are available.

22 Find Your Pathway **Paul Crawford** **Outreach** **pcrawford@niu.edu**
 NIU offers off-campus baccalaureate degree completion in partnership with regional community colleges. Both traditional and online courses are available for students whose busy professional and family lives require flexible scheduling and convenient locations.

23 Excellence in the Middle: Enhancing Mathematics Pedagogy with Connections in Science and Engineering **Helen Khoury** **LA&S** **hkhoury@niu.edu**
Mary Shafer **mshafer@niu.edu**
 To enhance professional growth, content knowledge, and instructional practices of middle school mathematics teachers and to increase their students' understanding of mathematics, NIU engaged 25 middle school teachers in a high needs district in completing an MST degree with specialization in Middle School Mathematics Education. Besides course work, the program includes reflection and school-based assignments that link research and practice, and professional development that emphasizes problem solving, communication, inquiry, students' mathematical thinking, and connecting mathematics to subjects such as sciences and engineering.

24 Campus Assessment Message for Community Partners **Carolinda Douglass** **Assessment Services** **cdoug@niu.edu**
 The NIU Campus Assessment Network (CAN) has developed a series of Campus Assessment Messages for Community Partners and other campus constituents to help enhance the positive culture of teaching, learning, and assessment for NIU students.

25 Project REAL **Portia Downey** **EDU** **pdowney@niu.edu**
 Project REAL (Rockford Education Alliance) is a school-community college-university partnership between Northern Illinois University, Rock Valley College, and Rockford Public School District 205. P-12 students and teachers, pre-service students, and higher education faculty focus on ways to raise student achievement, particularly in mathematics and reading, through shared decision making, teacher recruitment, teacher education reform, extending pre-service clinical experiences, enhancing leadership skills, and offering extensive professional development.

26 Acquiring Math Concepts--Young Children **Paula Hartman** **EDU** **phartman@niu.edu**
Myoungwhon Jung **mjung@niu.edu**
 Many preschool teachers focus mathematics instruction on children's mastery of narrowly defined skills, such as counting or performing algorithms rather than developing a rich understanding of number and number relationships essential for acquiring mathematical concepts (Van de Walle & Watkins, 1993). We are providing research-based activities developing number relationships such as subsidizing (Clements, 1999), more/less (Van de Walle, 2004), and part-part-whole (Fisher, 1990) which teachers can share with struggling preschoolers.

27 Latino Youth: Moving Up, Reaching Out **John Alexander** **LA&S** **jalexander@niu.edu**
 The project aims to increase the number of bilingual/bicultural health care professionals throughout Illinois by working with area Latino high school students to explore various health care career options in the classroom and through college visits. At the same time, the project seeks to inculcate an ethic of civic engagement in youth through service projects in partnerships with local community health providers.

28 Activate Elgin **Beverly Henry** **HHS** **bwhenry@niu.edu**
 Activate Elgin (AE) is a community-based coalition designed to engage all sectors to work in harmony providing all residents with opportunities to improve their health, well being, and overall quality of life. As a partner, NIU's role on the leadership team has included student service projects (health fairs, school programs, program assessment) and research support. This year's priority is evaluation of implementation of the Kane County Health Department Fit for Kids Initiation grant.

29 Publicizing Best Practices **Charles Howell** **EDU** **chowell@niu.edu**
 Thresholds in Education, a quarterly journal, publicizes best practices in the region's schools for an audience of teachers, administrators, and other school personnel. Join us to see sample copies, check out topics for upcoming issues, and explore how Thresholds could be used to publicize your school's or district's achievements. We will also have ideas for how Thresholds can be used in teacher education courses and for professional development in school districts.

30 Human Anatomy For Secondary Students - A Short-Course **Chris Hubbard** **LA&S** **chubbard@niu.edu**

Most human anatomy learned at the secondary school level and in college is taught using models. In reality, models barely approximate the true shape, color, and texture of real human organs. In the past 8 years the Department of Biological Sciences at Northern Illinois University has conducted several one- or two-day human anatomy courses in our cadaver laboratory for junior- and senior-level high school students. The results of this experience show that the students who take these courses become extremely motivated by the experience and willingly spend long hours of study to absorb the material. The teachers for these classes, however, were alumni from our Human Anatomy MS program who had extensive experience working with cadavers. Because not everyone has worked and taught using cadavers, we have compiled an informational packet with a variety of curricular components that can be used when teaching a short course in human anatomy.

31 Northern Illinois Transition Initiative **Sarah Johnston-Rodriguez** **EDU** **sjohnston@niu.edu**

NITI provides leadership and training to a consortium of school districts, agencies, and programs in northern Illinois and provides services and supports to youth with disabilities making the transition from school to community and postsecondary pursuits. NIU is sponsoring and hosting a Transition Symposium on October 19, 2009, and a Transition Training Institute, Summer 2010.

32 NIU's Conference for Young Women **Rebekah Kohli** **LA&S** **rkohli@niu.edu**

Sponsored by the College of Liberal Arts and Sciences and the Women's Studies Program, this conference introduces women in their sophomore through senior year of high school to careers in a variety of fields including professions that the U.S. Department of Labor lists as "non-traditional" for women.

33 NIUNet **Herb Kuryliw** **ITS** **hkuryliw@niu.edu**

Using fiber optic lines, NIUNet is a 175-mile fiber optic ring enhancing both the university's own research mission and economic development efforts around the state. NIUNet's goal was simple: create a high-speed network that linked the main campus in DeKalb with Outreach Centers in Rockford, Naperville, and Hoffman Estates. NIUNet now reaches out to K-12 schools, hospitals, libraries, and local governments, creating an ultra-high speed network for the development of programs and technology at NIU.

34 NIU Outreach Credentialing Programs **Donna Mann** **Outreach** **dmann@niu.edu**

NIU Outreach partners with numerous national and international professional associations to offer non-credit exam prep and continuing education courses for candidates seeking to earn and retain professional credentials necessary to remain competitive in a fragile economy. NIU's award-winning programs for Human Resources, Business, Finance, Accounting, Facility Management, LEED, and Sustainability are offered throughout the region as open enrollment and contract training for businesses and organizations. Program details are available at www.niupd.niu.edu.

35 THE ACADEMIC PORTFOLIO: A Practical Guide to Documenting and Assessing Teaching, Research, and Service **J. Elizabeth Miller** **HHS** **jem@niu.edu**

The academic portfolio is an innovative and highly promising way to get at the individuality and complexity of faculty work in teaching, research, and service. A research-based rubric defines the narrative supported by evidence. The book describes the what, why and how to develop an academic portfolio. It provides proven advice for getting started, discuss red-flag dangers and benchmarks for success. It is of interest to faculty members, department chairs, deans, and promotion and tenure committees.

36 Where Have All the Boys Gone? Males and Foreign Language Learning **Michael Morris** **LA&S** **mmorris1@niu.edu**

Anecdotal evidence abounds that more females than males are in foreign language classrooms, especially at advanced levels. In collaboration with foreign language teachers at Rolling Meadows High School, we are exploring possible reasons for this phenomenon. Family influence, peer pressure, learners' belief that languages are less important than other subjects, and lack of suitable role models among teachers are among possible causes we are investigating.

37 Chesebro Elementary-NIU After-School Foreign Language Partnership Michael Morris LA&S mmorris1@niu.edu

During 2008-2009, NIU foreign language education students provided instruction in French, German, and Spanish to more than 90 children at Chesebro, culminating in a final assembly in which the children demonstrated the language they acquired. The program gives NIU teacher candidates invaluable experience teaching languages to younger children, while providing learners with subject instruction not presently available in the regular curriculum.

38 Community Collaboration in Physical Education Teacher Education Jenny Parker EDU jparker@niu.edu

The Physical Education Teacher Certification Program has two main features: the clinical sequence and the professional development expectations for both graduate and undergraduate students. The clinical sequence involves a series of structured teaching experiences developed in collaboration with our community partners. The KNPE program has also created a series of professional development expectations for our students which include involvement with state and national organizations and local community groups.

39 PASCAL University Regional Engagement (PURE) Diana Robinson CGS drobinson@niu.edu

In collaboration with the Center for Governmental Studies, PASCAL is an international higher education research network; and the PURE project links the northern Illinois region to 14 other international projects focused on higher education, economic regeneration, and workforce development.

40 Toward Excellence in Teaching Diane Schael Cambridge Lakes Charter dianceschael@cambridgelakespreschool.com

Cambridge Lakes Charter School partners with NIU in creating a pre-service teaching experience that provides a model in teaching excellence. Cambridge Lakes uses personalized learning plans with each student to maximize learning potential, active-learning spaces designed with the learner in mind, and state of the art technology throughout the classrooms. NIU students participate in clinical observations, student teaching, and the school's-out after-school programs to gain knowledge and experience in early childhood and elementary grade levels.

41 Athletic Training Partnership Gretchen Schlabach EDU gas@niu.edu

Northern Illinois University's Athletic Training Education Program has held a long-standing partnership with educational and health care institutions in DeKalb and surrounding counties. Athletic training students engage in 6 semesters of clinical experience at high schools, colleges, and orthopedic and rehabilitative clinics. The athletic training education program is a natural fit for service-learning methodology that links didactic elements with purposeful, intentional service under the supervision of an approved clinical athletic training instructor.

42 NIU STEM Outreach Patricia Sievert STEM Outreach psievert@niu.edu

NIU's outreach in the STEM disciplines (science, technology, engineering, and math) supports numerous activities throughout the year focused on our future STEM students and their teachers. We aim to increase student interest and ability to succeed in STEM fields. Events include hands-on experiences such as our Spooky Science Saturday, high interest demonstration programs in schools, several summer camps, after-school engineering clubs, and teacher workshops.

43 School-University Partnerships Sharon Smaldino EDU ssmaldino@niu.edu

The School-University Partnership Office in the College of Education collaboratively works with designated school districts to enhance teacher preparation, provide teacher candidates with experiences in diverse and special settings, share research and scholarship, offer new instructional strategies through professional development, provide opportunities for collaborative school-university projects, and facilitate interaction among educators at all levels.

44 Visual Culture and Literacy with St. Mary School **Deborah Smith-Shank** **VP&A** **debatart@niu.edu**
Shei-Chau Wang **scwang@niu.edu**

St. Mary School in DeKalb has been in partnership with the Art Education Program for the past six years. They have no certified or licensed art teacher, and the students in the art education certification program (Type 10 – Art K12) have taught the only art courses the students receive. In the past, we have supplied art instruction to grades 4-8. In the fall of 2009, for the first time, we will be including grades K-3 in this partnership. In collaboration with the K-8 teachers at St. Mary's School, our students design lessons that incorporate aspects of subjects across the curriculum including history, language arts, and social studies. The Principal, Ms. Pat Weiss, and the teachers have been supportive of this collaborative project.

45 Strength and Balance for Life: Oak Crest Partnership with KNPE: **Moira Stuart** **EDU** **mestuart@niu.edu**

Since 1988 students in the Exercise Science programs in KNPE have guided residents (average age 85) from Oak Crest Retirement Center in DeKalb through a fall prevention program that focuses on strength and balance. Clients/participants engage in exercise programs designed to develop balance and strength to enhance quality of life and fully engage in activities of daily living.

46 CornPlastic **Robert Tatara** **CEET** **tatara@ceet.niu.edu**

The CornPlastic project created a novel biomaterial using the ethanol processing co-product, DDGS, with a commercial starch-plastic resin. The result is a novel bio-product: Green Tee. This bio-based material is less costly than current biodegradable plastics and increases the rate of biodegradability creating a “greener” plastic. In addition to mechanical properties, other material qualities such as surface finish, color, and general appearance were evaluated. Data demonstrated adequate property performance of the injection-molded tees.

47 Promoting Transition Through Technology: Project MY VOICE **Toni Van Laarhoven** **EDU** **tvanlaar@niu.edu**

Transition planning is critical for supporting students with disabilities in P-20 settings and beyond. Project MY VOICE is a youth self-advocacy project that supports youth with developmental disabilities in creating and presenting multimedia presentations that reflect their dreams for the future at their IEP or transition planning meetings. Outcome data from the first two years of the project, sample student presentations, and resources and tutorials for project implementation will be shared with participants.

48 Video Tutorials: A Convenient Medium for Learning to Use Assistive Technologies **Toni Van Laarhoven** **EDU** **tvanlaar@niu.edu**

Current legal mandates require that students with disabilities have access to assistive technology devices and/or services. In order to provide quality services to students, both special and general education teachers must be knowledgeable about assistive technologies so that they have the necessary skills for implementation of services. To meet this need, video tutorials of commonly used assistive technologies were developed to teach educators to use the technologies. An overview of research that was conducted using this medium will be presented and a link to the research-supported website will be provided.

49 ITEAMS - Integrated Technology & Engineering to Advance Mathematics and Science **Alan Zollman** **LA&S** **zollman@math.niu.edu**

ITEAMS is a partnership among NIU's Arts & Sciences, Engineering, and Education Colleges with Harlem School District 122 and West Aurora School District 129, to improve the quality of teachers. Teachers develop skills and knowledge in engineering applications – integrated with classroom pedagogy, student identity formation and motivation, and STEM literacy and numeracy – through a truly unique interdisciplinary degree, Master of Science in Teaching in Engineering Education.

50 Economic Education: Partnerships for Progress **Joanne Dempsey** **Econ Illinois** **jrd@niu.edu**

Econ Illinois partners statewide with school districts, ROEs, non-profits, and corporations to assist K-12 schools with integrating the teaching of economics and personal finance across the curriculum. Primary focus is on teacher professional development and curriculum consulting, along with several programs that engage students directly in economic education activities like the Stock Market Game and Poster Contest. We are always looking for new partners!

51 Student Mathematics Achievement Under No Child Left Behind **Jeongmi Kim** **COE** **jkim1@niu.edu**

To narrow the math achievement gap relevant to students' demographic backgrounds and improve all students' achievement, this study focuses on investigating student and school factors. The findings of this study suggest practical implication to improve high school students' math achievement.

MS in Sport Management **Rod Caughron** **EDU** **rcaughron@niu.edu**

The MS in Sport Management at NIU is one of the leaders in the field of academic sport management programs. Our relationship with the nationally renowned MBA program at NIU helps the sport management program emphasize the business aspect of the sport industry. The program's core values include leadership, communication, and business excellence, which is exactly what the industry is demanding. Sport is a multi-billion dollar industry in the U.S. and worldwide, and preparing students to operate in that business environment gives them an edge over other master's programs. When students complete their degree at NIU in the MS in Sport Management program, they are ready to work for various sport organizations in professional, intercollegiate, private, and international businesses, as well as the fitness management and recreational fields.

Partnering to Develop Homegrown Leaders **Jon Crawford** **EDU** **jcrawford@niu.edu**

This poster describes the successes realized by NIU's educational leadership faculty in partnering with the Rockford Public Schools, the public school districts located within New Trier Township, a consortium of school districts represented by Kildeer School District 96, and Community High School District 155 to develop school leaders. These collaborative efforts have been designed to prepare school district employees to assume formal leadership roles within each district's schools.