Opportunities from the National Center for Research on Rural Education (R²Ed)

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Whittier Research Center

University of Nebraska-Lincoln
National Center for Research on Rural Education ($R^2$Ed)

Housed in the *Nebraska Center for Research on Children, Youth, Families and Schools (CYFS)*, in the *College of Education and Human Sciences* at UNL.


Positions NE as national leader in rural educational research
National Center for Research on Rural Education ($R^2$Ed)

Research contributes to data-based understandings of what works, for whom, and under what conditions in the rural context, in the areas of instruction/education, professional development of teachers, and related issues (e.g., family-school partnerships)
Goals of R²Ed

• Conduct rigorous research with school partners
• Identify effective school, teacher, and family supports
• Help advance performance of students in rural settings
• Content areas: reading, science, and behavior
Intended Outcomes

• Enhance learning/achievement of students in rural settings
• Build capacity of rural school communities (teachers, families).
• Develop and sustain school partners in rural education research
Today’s Session Goals

• Overview of the Center's research and outreach activities
• Access to on-line resources through the R²Ed website
• Opportunities for potential active participation in research and outreach endeavors of the Rural Research Center
Overview of R²Ed

Goal:
To advance and support the scientific foundation for education in rural settings

Immediate Aims:

- Identify effective practices that lead to evidence-based interventions for reading and science instruction
- Identify effective school, teacher, and family supports to help advance student learning
- Create and provide an infrastructure for research and outreach for the field
Shared Leadership Initiatives: Outside In and Inside Out

Outside In

• “Listen and Learn”
• Coalesce a Knowledge Base

Inside Out

• Share a Knowledge Base
• Develop Future Leaders in Rural Education Research
Outside In: Listening, Learning

Needs Identified:

• Evidence for teacher support
• Distance education technologies
• Strong connections with leadership
• Effective methods of dissemination to bridge the gap between research and practice
Outside In: Coalescing a Knowledge Base

Expert Consultants/Visiting Professors

• Creating Rural Connections Series
• Advances and Opportunities Series
• Research Methodology
Inside Out: Sharing a Knowledge Base

Rural Center Website  http://r2ed.unl.edu

Key Features

• Speaker Series
• Research Digests
  • Written summaries of local and national researchers’ publications and video-based interviews with them of their research
• Rural 360°: Reaching Researchers, Educators, and Communities - electronic newsletter
PROFESSIONAL DEVELOPMENT MODEL
Theory of Change for Professional Development

Context Variables: Content Domain (math, science, reading); Grade Level (elementary, middle, high); School Climate/Administrative Support

Teacher Variables: years teaching, prior training, content knowledge, certification

Medium of Support
(e.g., on-site, technology-delivered)

Professional Development:
Instructional Content
Discipline-based
Pedagogy
Approach
Didactic instruction
Modeling
Practice
Feedback
Coaching

Teacher knowledge, skills, attitudes and perceptions

Transfer of knowledge and skill to classroom practice

Distal Outcome:
Student Learning (acquisition of knowledge, skills, and competencies in content areas)
<table>
<thead>
<tr>
<th>Process</th>
<th>Approach</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Assessment (identification of student needs)</td>
<td>Self-report</td>
<td>Teacher appraisal of student knowledge, skills, needs, and/or capabilities</td>
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<td>Direct observations</td>
<td>Direct, objective assessment of student performance</td>
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<td>Progress monitoring</td>
<td>Teacher-administered probes document students’ performance</td>
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<td>Promotion of knowledge/skills</td>
<td>Content instruction</td>
<td>Evidence-based, domain-specific information presented by content experts</td>
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<td>Modeling</td>
<td>Demonstration of effective instructional strategies by coaches</td>
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<td>Practice</td>
<td>Enactment of newly learned skills by teachers</td>
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<td>Feedback</td>
<td>Written and/or verbal evaluations of teacher practice</td>
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<td>Skill transfer (classroom implementation)</td>
<td>Coaching/consultation</td>
<td>Individualized coordination and oversight by coaches, from training through classroom implementation</td>
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Growing a Research Profile

Professional Development Studies

• Teachers Speak (National survey of professional development): completed
• Project READERS (Randomized controlled trial; RCT) (2010-2014)
• CSI: Coaching Science Inquiry in Rural Schools (RCT) (2012-2014)

Family Involvement Studies

• CBC in Rural Communities (RCT) (2010-2014)
• Starting Off Right (Secondary data analysis) (2011-2014)
Professional Development Survey Study: *Teachers Speak*

Investigated professional development in 4 areas:

- Reading
- Science inquiry
- Mathematics instruction
- Teachers’ use of data to inform reading instruction/intervention

Findings useful for informing:

- Future professional development in rural schools
- Ongoing research on professional development
Professional Development Survey Study: *Teachers Speak*

**Participants**

- Randomly selected from national NCES database
- Sample included 268 rural and 327 non-rural K-5 teachers from 43 U.S. states
- Within each locale, sample was stratified by school size
Professional Development Survey Study: Teachers Speak

Procedure

• Surveys mailed in April & September 2010
• Small incentives provided to teachers (pen, sticky notes, and tote bag)
• Surveys returned via prepaid envelope
• Teachers responded to questions about their best professional development experience within the past year pertaining to one of four content areas
Professional Development Survey Study: *Teachers Speak*

**Key Descriptive Survey Results**

- Many similarities existed across rural and non-rural teachers with regard to professional development.
- Interesting differences:
  - The format and method of professional development.
  - The leader of professional development experiences.
  - Amount of interaction and collaboration.
  - Difference in distance traveled.
  - Time and duration.
  - Topical Alignment.
Project READERS

• Investigate the efficacy of two variations of teacher PD with coaching in the use of student data to inform K-3 reading instruction/intervention:
  
  • PD with distance (web-based) coaching
  
  • PD with on-site (face-to-face) coaching
Project READERS

• Approx 360 rural classroom teachers and their special education and/or Title I support staff

• Schools randomly assigned to one of three conditions
  – No PD, PD with site (face-to-face) coaching,
    PD with distance (web-based) coaching

• Teachers in PD conditions participate in institute-based PD accompanied by either distance or onsite coaching
Project READERS

• Distance technology is an effective means of providing coaching, instructional observations, and feedback

• Teachers are equally satisfied with distance and face-to-face coaching and feedback

• Both modes of delivery increase teachers’ self-efficacy for using data to make instructional decisions for their students
Interested?

Project READERS
Grades K-3
Contact:
Dr. Tanya Ihlo

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CSI: Coaching Science Inquiry in Rural Schools

• Two conditions
  – Professional development for middle and high school science teachers on guided science inquiry plus distance-delivered instructional coaching
  – Control: “business as usual” – no professional development or coaching

• Approx 162 teacher participants: 81 in each condition

• June 2012: first PD Summer Institute

• Pilot in 2011: positive responses from 10 teachers and 7 coaches
Comparison of Guided Inquiry Instruction to Common Practice

**Guided Inquiry**
- Students gather data
- Students synthesize and analyze data
- Teacher guides students to articulate concept from the data
- Further application/elaboration of concept

**Common Practice**
- Introduce content through a formal presentation
- Verify content through demonstration
- Practice content through laboratory exercise
- Answer textbook or worksheet questions about content

Cobern et al., 2005; Wilson et al., 2010

Hudson et al., 2002; Weiss et al., 2003
Interested?
CSI: Coaching Science Inquiry in Rural Schools
Grades 6-12
Contact:
Jim Houston
Project Manager
jhouston2@unl.edu
Conjoint Behavioral Consultation (CBC) in Rural Communities

• Efficacy of CBC on teacher, parent and student outcomes (social, behavioral, academic) in K-3
  – Structured support model that increases parent involvement and family-school partnerships to promote student goals and success

• Two conditions: CBC (experimental) and business as usual (control)

• 90 teacher participants (1-3 students/parents per classroom)
CBC in Rural Communities

Preliminary Findings

• Participants in CBC condition reported increased parent-teacher cooperation and improved student behaviors as a result of participation.

• Participants in CBC expressed high levels of satisfaction with consultation services in rural schools.
Interested?

CBC in Rural Communities

Grades K-3

Contact:

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Project Manager,

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Starting Off Right

• Examine the influence of setting (rural, town, suburb, city) on family and school variables that predict school readiness and academic achievement

• Understand whether setting affects the impact of preschool parental involvement on kindergarten school readiness

• Using data from the Early Childhood Longitudinal Study- Birth Cohort (ECLS-B)
Starting Off Right

Preliminary analyses

• Family and school variables that predict parent involvement
• Family and school variables that affect school readiness
• The relationship between preschool parent involvement and school readiness
SAVE THE DATE:
R²Ed National Conference
April 4-5, 2013

Promoting Academic Success of Rural Students: Translating Research into Practice

• Omaha, Nebraska
• Keynote: Dr. Roger Breed, Nebraska Commissioner for Education
• Details to follow at www.r2ed.unl.edu
Contact Information

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