Producing Teachers with a Balance of Content and Pedagogical Knowledge: Recommendations for Success

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Introduction

• Teacher Preparation Programs
  – Pedagogical Knowledge
  – Content Knowledge
  – Pedagogical Content Knowledge (PCK) (National Research Council, 2010; CAEP, 2013)

• Well developed programs are needed to ensure quality teachers enter the classroom
  (National Research Council, 2010; CAEP, 2013)
Pedagogical Content Knowledge

• Transformation of content and pedagogy unique to teachers (Shulman, 1986)

• PCK is recognized as a critical knowledge-base for teaching (Rice & Kitchel, 2010)

• Increased need for PCK in teacher prep (Ballantyne & Packer, 2004; Loughran, Berry, & Mulhall, 2004)
  – Traditional separation of content and pedagogy (Beck, 1961)
PCK Development

• Achievable through teacher preparation via (Magnusson, Krajcik, & Borko, 1999)...
  – Purposeful instruction
  – Dedicated time for development
  – Support from instructors/peers
UGA Course Development

• Series of “For Teachers” Courses
  – Agriscience
  – Greenhouse Management
  – Natural Resources
  – Floral Design
  – Animal Science
  – Agricultural Mechanics
Course Goals

• Increased content, pedagogical, and pedagogical content knowledge
• Assignment flexibility
• Promote “career ready” skills
• Build evaluation skills
• Teach lessons utilizing new knowledge
• Enhance reflective abilities
Course Development

• Meeting with Content Expert and Pedagogy Expert
  – Integrate both components
  – Establish curriculum
  – Create agreement between both departments
Course Development

• Barrier for New Teachers:
  – Teaching natural resource content through outdoor labs

• FANR 5690: Natural Resource Management for Teachers
  – Forestry, Wildlife, and Fisheries content knowledge
  – Students team teaching outdoor labs on camera
  – Emphasis on middle school and high school student data collection in the field
  – Technology integration (e.g., Project Noah app)
Recommendations

• Faculty
  – Teacher educators work to develop courses that distinctively develop PCK
  – Content Experts support the growth of PCK through content specific courses
  – Purposefully engage preservice teachers in breaking down content in a tangible manner to increase comprehension and retention
Thank you!

Any Questions?!?