Triangulating Pedagogical Content Knowledge in Beginning Band Instruction
Symposium on Music Teacher Education • Greensboro, NC
September 26, 2013
J. Si Millican - The University of Texas at San Antonio

❖ Preamble
  o What is pedagogical content knowledge?
  o Can “musical knowledge for teaching” be described?
  o Theory based on three related studies
  o How is pedagogical content knowledge studied in other fields?
  o How do music teachers interact with common “problems” in music?
  o Focus: beginning band instruction

❖ Study One – Describing Instrumental Music Teachers’ Thinking: Implications for Understanding Pedagogical Content Knowledge (Millican, 2013)
  o Presented experts with set of video problems
  o Examples of “student work”
  o Characteristics/traits
    ▪ Importance of models and modeling
    ▪ Specificity in language and thought
    ▪ Sequencing and decision making
    ▪ Manipulation of variables
    ▪ Questioning as a teaching device
  o So what?
    ▪ Each of the traits highlights a meaningful combination of the areas:
      • Modeling = knowledge of students + content knowledge + general pedagogical knowledge
      • Specificity = contents of each “bucket” + general pedagogical knowledge
      • Sequencing = curriculum knowledge
      • Manipulation of Variables = curriculum, content,
      • Questioning = student + general pedagogical knowledge + content
    ▪ Note knowledge in action
    ▪ Guide music teacher educators in designing experiences for future music teachers
Study Two – Describing Pre-Service Music Educators’ Pedagogical Content Knowledge (Millican, submitted)

- Set up similar study with a less-experienced population
- Quantitative – on site stimulus-response descriptive survey
- Results
  - Lack of specificity
    - Manipulation of variables
    - Sequencing
    - Maybe they just don’t know the answer? (“bucket” not filled?)
  - Problems, causes, solutions not always related (content knowledge)
  - Instead of modeling & questioning – “Work on” the problem was most frequent prescription
  - Interesting biases
- So what?
  - Pedagogical content knowledge really may be a window into “expert” teaching
  - Each “bucket” needs to be filled
  - Combination of each “bucket” important
  - We need to help our students form connections
    - Application – microteaching, knowledge in action
    - Field Experience

Study Three – Accounts of Practice Design (Millican, in progress)

- Problems
  - Conjectural bias of first two studies
  - What specifically might go into each “bucket?”
  - Can we really describe individual topics in great detail?
- Qualitative “Accounts of Practice” design (Simon & Tzur, 1999)
- Analysis
  - Catalogue of “topics”
  - Lip Slur Mind Map
- Results
  - Teaching is intricate
  - Contents of each “bucket” can be described
    - Musical Skills (Content Knowledge)
    - Teaching Skills (General Pedagogical Knowledge)
    - Common problems (Knowledge of Students)
    - Sequencing (Curricular Knowledge, Content Knowledge)
Concrete examples of teaching techniques/traits in action
- Models
- Specificity in language and thought
- Sequencing
- Manipulation of variables
- Questioning as a teaching device

Confluence of Ideas
- So what?
- Can we fill the “buckets?”
- What’s next in Pedagogical Content Knowledge research?

Questions? Comments?

Supplementary Materials

Prezi – Triangulating Pedagogical Content Knowledge in Beginning Band Instruction – http://prezi.com/vzw6g2whfovk/?utm_campaign=share&utm_medium=copy

Handout copies & other documentation – http://music.utsa.edu/smte13


Selected Pedagogical Content Knowledge References


