

Iowa Teacher Education Summit
August 14, 2009
Breakout Session II - Session 4 Secondary Science
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Notes:

This session quickly became an extension of Breakout session I-Session 2 which was facilitated by Mike Cough from ISU. In that session Mike tasked the group to generate a list of what the key essential learnings or topics that should be in a science teaching methods courses in a secondary science teacher education program. Dunkhase had the attendees continue that discussion in small groups then share out with the large group. The following were recorded:

- There's more to teaching science than content.
- Science is a process of inquiry rather than a body of knowledge.
- Modeling inquiry in "methods" courses.
- Effective instruction is embedded with content.
- Techniques to address false preconceptions/misconceptions about science concepts students may have.
- Assessment for student learning rather than just for evaluation.
- Metacognition as a strategy for student learning.
- Balancing research supported pedagogy with the "realities" of the classroom.
- Student centered learning.
- Prepare students to navigate the institutional constraints of the schools.
- Teacher behaviors and interactive strategies.
- "Stereotype threats"
- Teaching to accommodate learning differences.
- Scaffolding – awareness of learning progression.