

PER GROUP MEETING

Wednesday, September 13
2006

Teaching Interview of Groups

Bijaya Aryal

- Interview protocol development
 - Learning student difficulties from last stage
 - Group of 2-3 students participate at a time
 - Presentation of the purpose of the activities
 - Scaffolding by statements of activity sheet
 - Minimal oral intervention
- Purpose
 - Test the activities to bigger groups
 - Vygotskian zone of proximal development by peer interaction

What I did this last week

(different from what I wish I did last week, which is nothing!)

- Arifa

- Met with Charles & discussed (1) Where our research questions converge & where they diverge (2) Discussed various instruments & reviewed the ones that he will be using.
- Started working on the brochure for the UG science reform class project.

K-State
C. Mamolo

- Agreed with Arifa to review independently “views on the nature of science” articles
- Searched for more literature (primary and secondary)
- Articles are either qualitative or mixed methods.
- Science Identity articles are qualitative. Domains are Competence, Performance and Recognition. No instrument available.

Next Step

- Analyzed Validity of articles (as reported)
 - Content (item and sampling)
 - Criterion (concurrent and predictive)
 - Construct
 - Consequential

Jackie: Everyday Electrical Devices

- Analyze interviews looking at very small grains of knowledge
 - Look at how models are built
 - Vertical and horizontal transfer

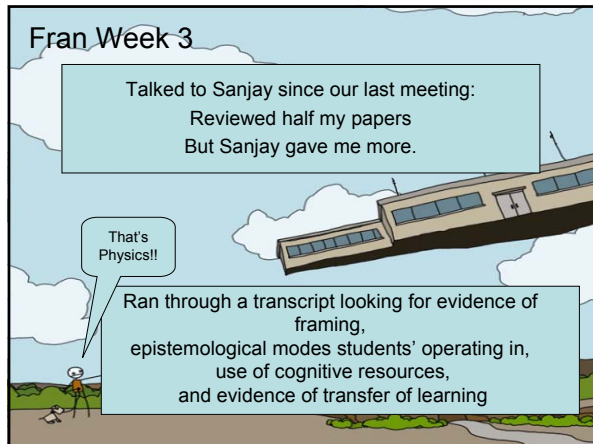
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graph TD
    Control[Control] --> NewInfo[New information]
    Control --> Resources[Resources from prior knowledge]
    NewInfo --> Example{Example: Observation of spinning and rolling}
    Resources --> Example
    Example --> Blender[Blender Motion]
    Example --> RailGun[Rail Gun Motion]
    Example --> Q(Q: What is similar?)
  
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- Think about about how students navigate points of cognitive dissonance
 - Map progression on the EIEIO diagram (Schwartz, Bransford, and Sears, 2005)
- Transcribe 10.5 more interviews
- Data set: 5 GP1; 9 GP2; 1 PW; 5 Physics majors

Dyan – Optics of Human Eye

- Need to do more interviews!
 - Approximately 5 if possible
 - Upper-level undergrads
 - Hopefully know something about eye
- Email sent – awaiting volunteers and money.



Mojgan-Pathway-Online Resources
Finding research based Materials to put research into action,
Concept area;Mechanics

Phase 1: Matched 250 articles to 50 Questions

Phase 2a: Matched research based materials such as: demonstrations,
student activities (labs, group work, etc.)

Phase 2b: assessment

450 entries matched to 600 questions, some finishing ends
Writing Report (Revising, 2 chapters)

4 chapters done, Formatting, Preparing for Electronic submission
Reviewed Pathway's theoretical framework and integration all the pieces
Plans: Final corrections, add one brief chapter about problems, final revision
of Endnote file.

ANNOUNCEMENTS

- **Arkansas-Oklahoma-Kansas (A-O-K) Meeting**
 - Fri-Sat, Oct 27-28, Emporia State Univ.
 - Depart ~ 3P.M. on Oct. 27. (Brian will lead)
 - Return late evening on Oct. 28.
 - Abstract due ~ 2 weeks prior, ~ Oct. 13
- **Fall Colloquium**
 - Dr. D. J. Wagner, Grove City College / RPI
 - Monday, November 20.