Transfer (?) from/through research in schools: An example

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The nature of transfer in a traditional sense

- Transfer =

  the incorporation of the results
  of scientific research
  into an industry’s products
  or means of production

Our industry's products and means of production

- Our industry's products:
  --student understandings, beliefs, capabilities, and identities

- Our industry's means of production:
  --curriculum decisions and documents
  --classroom materials
  --teacher practices
  --student engagement

Trajectories research (1)

An investigation of the choices of students that determine their pathway through high school mathematics and science

- choices of courses, and
- decisions within those courses
- risk and enabling factors

Trajectories research (2)

- Quantitative:
  school achievement records for a student cohort

- Interpersonal:
  - 2 or 3 “cycles” of
    - an on-line questionnaire and
    - a one-on-one interview
  - (two or three cycles per participant per year)

Trajectories research (3)

- One-year pilot study a grade 10 cohort
  Total N = 450, Interpersonal N =20

- Four-year study, 3 senior years cohorts
  Total N = 600; Interpersonal N = 102 (year 9)

Traditional transfer 1: curriculum decisions and documents

Manitoba's grade ten math decision

- available data:
  - teacher surveys, department head surveys
  - participation data, 16000 students, = 7000 * 3
  - no voice of students
- early Trajectories data:
  - grade ten math = developing real work habits
- What will Manitoba's gr. 10 structure be?

Traditional transfer 2: textbooks and testing materials

- Interview question: What are you learning in mathematics [science] right now?
- Manitoba's new assessment sampling: grade 7 mathematics and engagement
- New textbooks, K-9

Traditional transfer 3: teaching practices

- Student views of school math: to determine their capability to learn math, which is seen as static, but is not yet clear to them.
- Sources and intentions of help: from others, from teachers
  - NO strategic guidance (homework, studying, learning)

- Opportunities for transfer into teaching practices
  - school division requests
  - teacher professional groups
  - teacher preservice, inservice, and graduate programs
  - CMS + CMESG → CMEF 2009

Transfer of classroom research (1)

- Transfer is going to be
  - **indirect**. We affect people and people enact change;
  - **concurrent**, before it is post hoc; and
  - **absorbed**, through decision makers and practitioners, into the industry's products and means of production

Transfer of classroom research (2)

Transfer depends on credibility.

Our research can add to our credibility.

- The credibility of presence
  - of having *listened*.
  - of having appreciated the complexity of C T L
- The credibility of discourse with, not at, decision-makers
  - within their discourse system
  - within their value systems.

Transfer of classroom research (3)

"Transfer" in the education "industry"
will be relationship-dependent.

Our research will need to build,
and build capacity within,
educational relationships.