What can we learn from other cultures?

- Stevenson & Stigler: Math achievement in the U.S. and in Japan and the Republic of China
  - Problem: “…the performance of the top 5% of U.S. students is matched by the top 50% of students in Japan.” (National Research Council, 1989)

- What does the research show?
Performance on Math Achievement Tests
Why is Japanese/Chinese performance better?

1) It’s the teaching
2) It’s the cultural attitudes
East/West Differences in Teaching

- Coherence of lessons
  - Using real world examples; students’ answers
- How are words used? Objects? Problems?
- Reaction to students’ errors
- Pace: Coverage vs. time to think
Use of real-world problems

Percent of lessons in which the teacher was observed to present students with a written or oral real-world problem.

- Sendai
- Taipei
- Beijing
- Chicago

PERCENT OF LESSONS

First Grade

Fifth Grade
Using students’ answers

**FIGURE 9.2**
Percent of lessons in which the teacher was observed to use students’ answers in discussion.

- Sendai
- Taipei
- Beijing
- Chicago

![Bar graph showing percent of lessons in which the teacher used students' answers in discussion for different cities across first and fifth lessons.]
Cultural attitudes:

- What kind of performance satisfies parents?
- What teacher characteristics are deemed most important?
  - US: Sensitive; helps children’s esteem
  - Japan: Explains things clearly
- What factors are believed to lead to school success?
When are parents satisfied?
What factors are believed to matter?

Number of points (out of ten) that mothers assigned to indicate relative importance of factors that affect academic achievement.
Summary: US vs. Japan/China schools

- Multiple differences:
  - Instruction (teacher practices)
    - also: Preparation for instruction
  - Cultural attitudes
    - Teachers’ beliefs/attitudes
    - Parents’ beliefs
    - Parents’ expectations
  - Other factors:
    - parents make quiet, well-designed “homework space”

- Caveat:
  - Which schools? Which cities?
  - Do the differences replicate?