How Students Measure Up: Creation of an Assessment Instrument for Introductory Computer Science

Adrienne Decker University at Buffalo, SUNY February 23, 2005

Motivation

Assessment is Important

Results So Far

- Examined CC2001
- Refined Topic List

CC2001 Structure

- Knowledge Areas (14)
 - Knowledge Units (3 10)
 - Topics (3+)
 - Learning Objectives (1 per topic?)

Examining CC2001

- CS1 intersection too small
 - 60% of topic coverage in intersection
 - 30 47% of hours not in intersection
- CS1 & CS2 intersection
 - 78% of topic coverage in intersection
 - 81-88% of hours in intersection

Too Many Topics!

- Originally 75 topics in intersection
- Whittled down to 51
- Identified learning objectives for the 51 topics left

What am I up to now?

- Writing questions
- Further refinement of topics

In the Future...

- Administer Test
- Analyze Results
 - Reliability, Validity