# Measuring Student Confidence and Lab Material Balance in a Computer Science Course (CPSC 210)

- Course is taught "Top-down". High level concepts and abstractions are the focus of lecture time;
- Students learn low-level implementation details and new programming language (Java) syntax in an immersion style approach primarily in labs

Student Confidence per Lab

- Ask students to self-report their confidence level after every lab in three categories;
- Categories: Eclipse / Tools; Reading Java; Writing Java
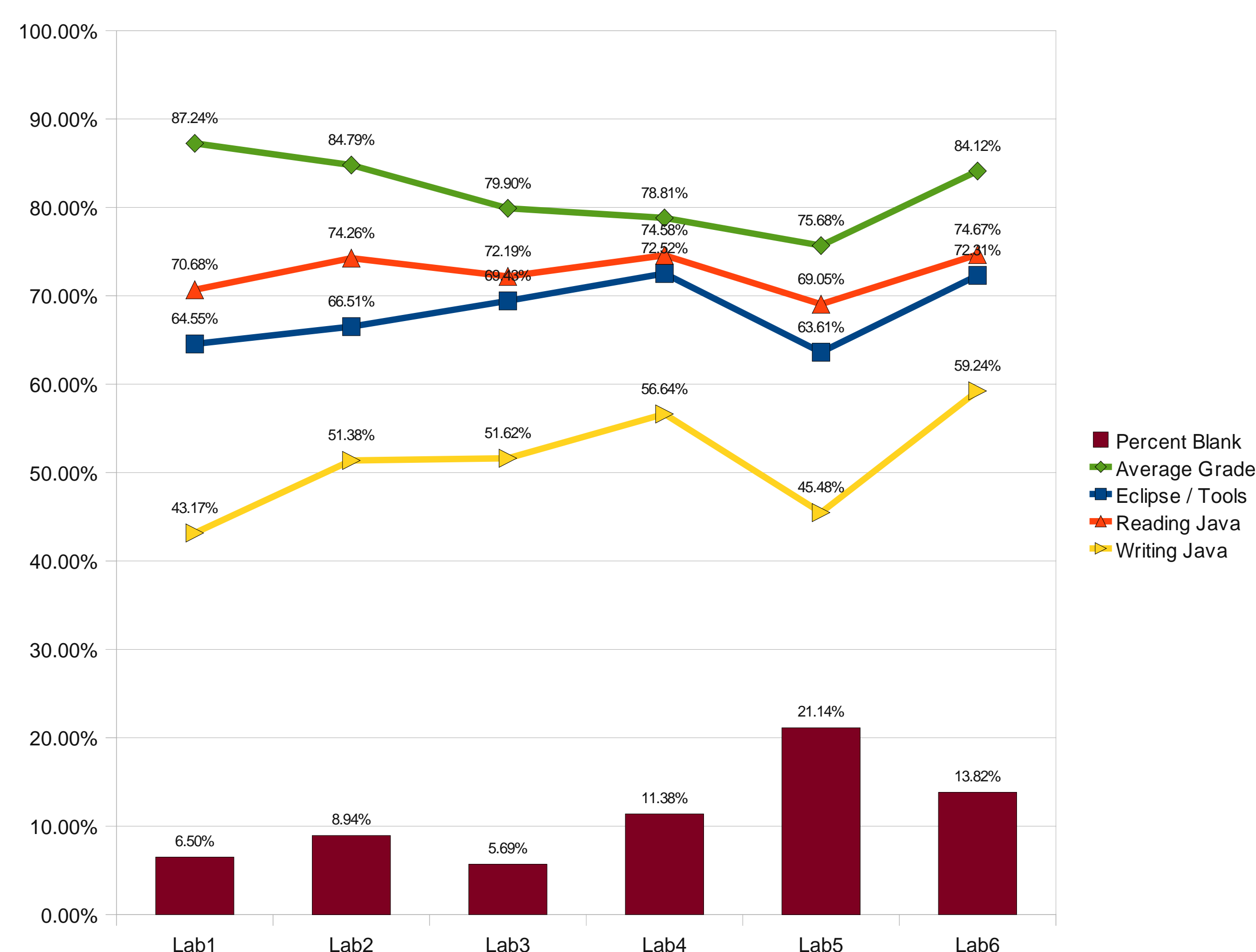
- Self-reported confidence is typically very inaccurate;
- Early labs students were over-confident;
- Rising confidence also did not correlated with falling average lab grades;
- Results do, however, show labs where students had particular trouble (Lab 5) where both confidence dropped and blank lab hand-ins rose.

Lab Material Balance

- Lab TAs record the type of each question a student asks;
- Categories: Tool / Software; Java Language; Comprehension English; Comprehension Material; Other

Percentage of Question Types
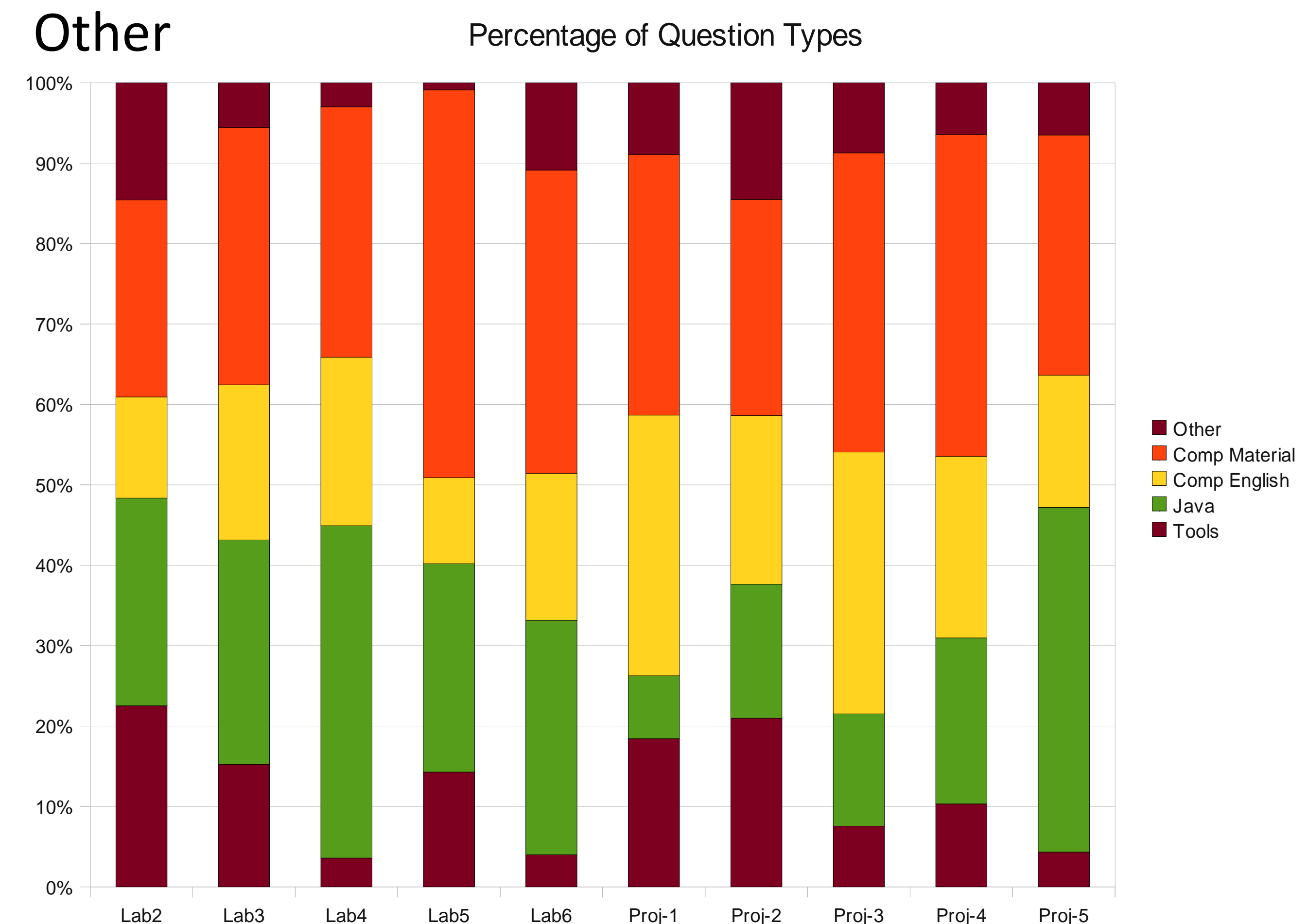
- Originally we thought we would find a downward trend in Language and Tools related questions as students picked these up in the immersion type course;
- The data ended up describing the balance of material students were focusing on in a particular lab;
- The data highlighted areas lacking focus in particular labs. For example, Lab 5 could use more direct focus on the use of Tools.