

CS-SEI: An Overview

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STUDENT ATTITUDES

Computing Attitudes Survey (CAS)

How do student attitudes towards computer science change between the start and end of a course?

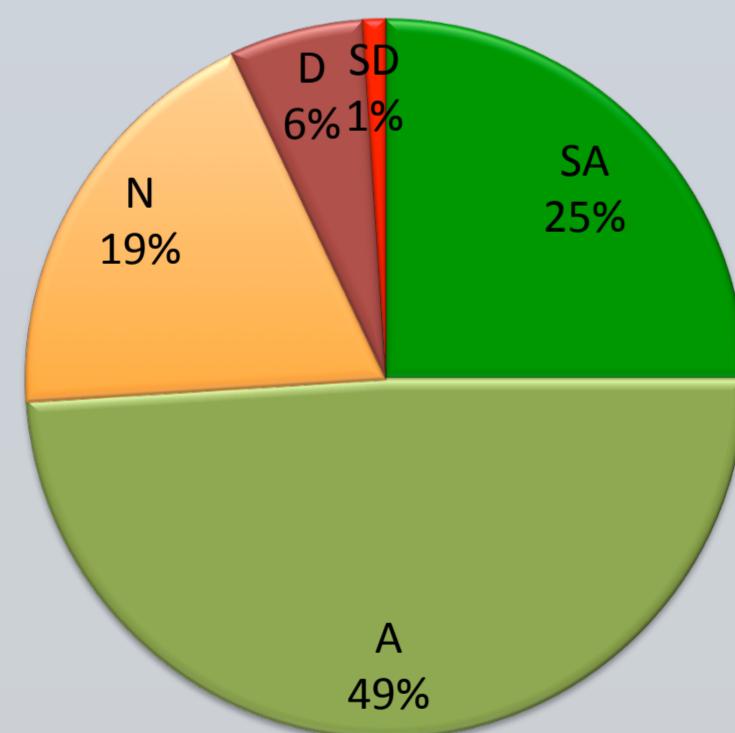
CAS is a validated survey instrument, currently under development by Allison Elliott Tew, that has been adapted from the Colorado Learning Attitudes about Science Survey (CLASS). It was administered this term pre/post in 3 of our introductory courses (CPSC101, CPSC110 & APSC 160). Analysis of the data is in progress.

New introductory courses: CPSC 110, 210

Two new courses in software design have been introduced to the curriculum. CPSC 110 uses a sequence of programming languages, designed for novices, that allows the course to focus on conceptual understanding. CPSC 210 concentrates on concepts pertaining to the construction and evolution of software systems. It is structured in such a way that students learn how to learn a new programming language.

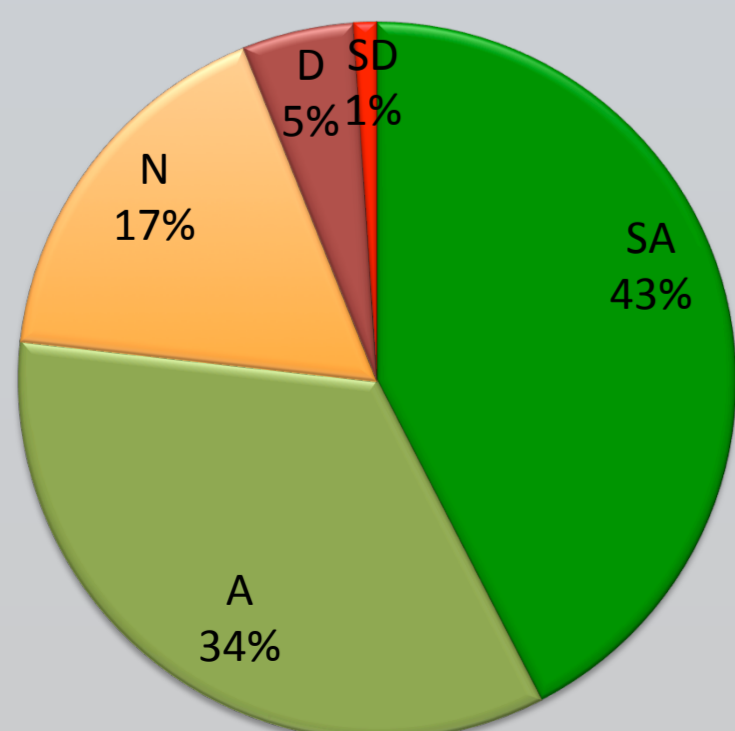
Per-question analysis of exam scores is conducted to assess student comprehension of core learning goals.

Everyone has the ability to be good at designing programs.



My interest in computer science has increased over the course of the term mostly because I found that I enjoyed going to lectures and learning about designing programs. Also in computer science, the application of what we learned is very real for me. I sometimes code and design programs for fun.
CPSC 110 Student

Learning program design is valuable for CS and Non-CS Majors.



It's fun, it literally applies to everything we do in life, i.e. systematically designing something by breaking down a large problem into smaller manageable pieces and building it back up into one functional unit.
CPSC 110 Student

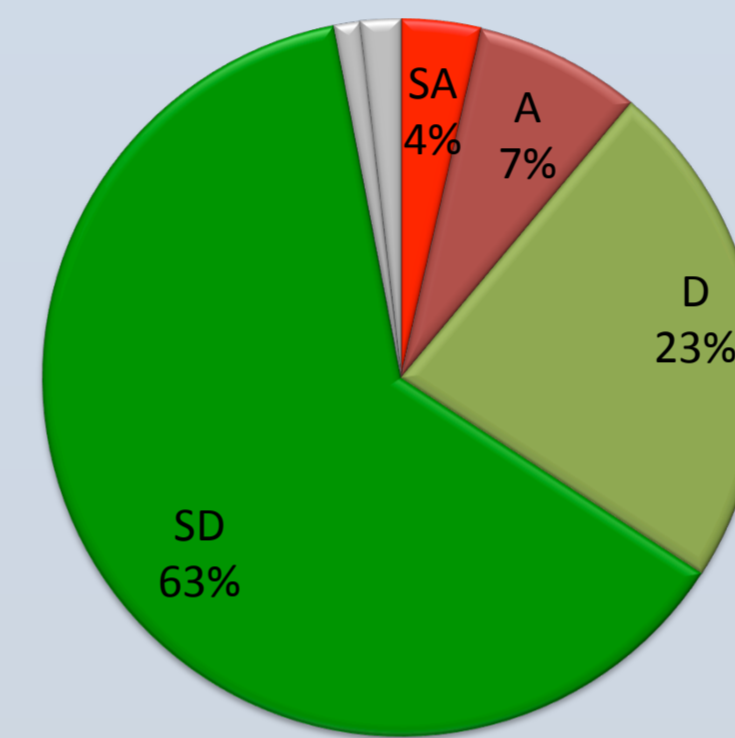
NEW APPROACHES

TRANSFORMATION

Interactive Engagement

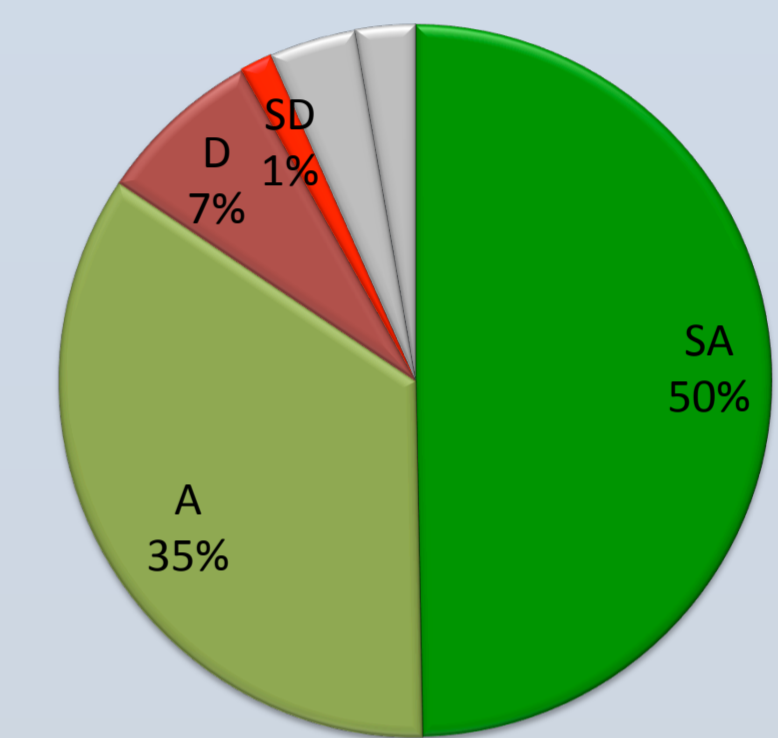
Techniques for fostering interactive engagement in the classroom, such as Just-in-Time Teaching, Peer Instruction and in-class activities, have been adopted in APSC 160, CPSC 101, CPSC 121 and CPSC 317. Pre-class activities involve reading assigned sections of the textbook (CPSC 101, 121) or studying screencasts (APSC 160).

APSC 160: I would prefer a traditional lecture format to online screencasts and in-class problem sets.

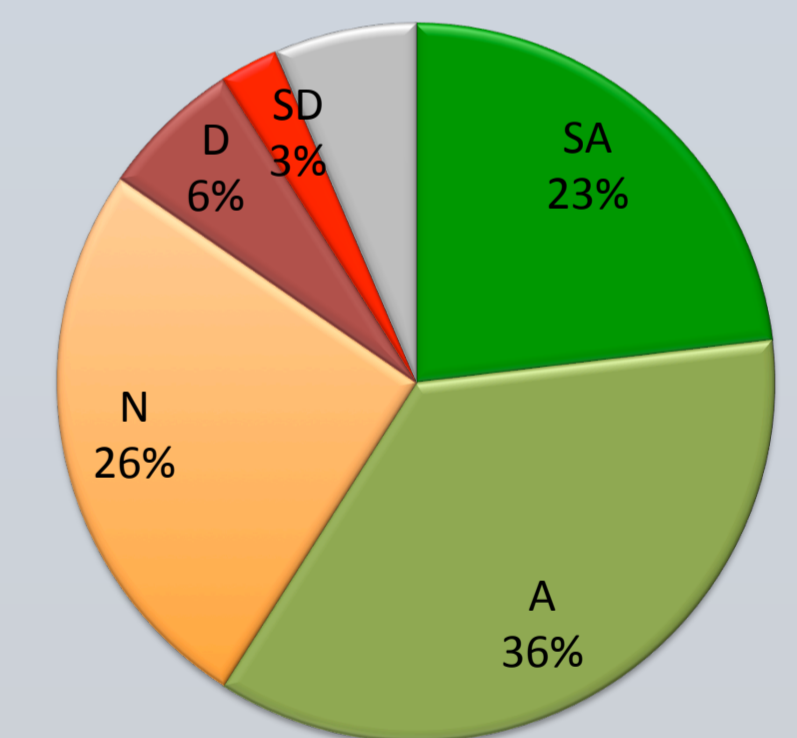


I loved the screencast format of the lectures. It required a little bit of extra responsibility to watch the screencasts, but the outcome was great.
APSC 160 Student

APSC 160: I am more engaged in this class period than in other classes that use a more traditional lecture format.



CPSC 121: Clickers with discussion are valuable for my learning.



I found this "screencast" method a very effective way of teaching, and I appreciated working over the harder concepts in class, as opposed to other classes where that must be done outside of class.
APSC 160 Student

Course Renewal

A number of courses have been renewed through the introduction of learning goals and subsequent alignment of labs, tutorials, lecture materials, assignments and/or assessment activities with those goals:

Systems	Data Structures	Software Engineering	Artificial Intelligence	Databases	HCI
CPSC 213	CPSC 221, CPSC 260	CPSC 310, CPSC 410	CPSC 322, CPSC 422	CPSC 304	CPSC 444

RENEWAL