Performance and Attitudes by Prior Programming Experience
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-Overview-
There is a wide variety of previous experience in CSC171.
▪ There are no prerequisites and no programming experience is required.
▪ Some students could place out of the class while others know almost nothing about programming.
▪ Clearly, a student who has no experience in programming will have more to learn than a student who does.
▪ How much of a gap exists and are students disadvantaged?

-METHOD-
Discover how students perform and feel based on prior experience.
▪ Survey the students
  • How aware are they of gaps?
  • How do they feel about it?
▪ Compare grades by prior skill levels
  • Midterm Exam = 15% of overall grade
  • Weekly Quiz = 5% of overall grade

-DATA-

-Analysis-
The discrepancy is not enormous, and there is hope!
▪ There is a correlation between grades and past experience → but beginners can do as well as the more advanced students.
▪ Most students who “do not care” also “feel peers know less,” most students who “feel peers know more” felt “left behind” → attitude is important, we need to prevent students from feeling disadvantaged.
▪ 62% of students said they would attend a workshop to learn basic programming skills → this is a large enough number that we should hold a session.

-Conclusion-
Having a range of prior experiences is fine; students can still achieve.
▪ We should hold a session to go over basic skills at the beginning of the semester.
▪ The range of grades show that it is possible for anyone to do well, although advanced students generally perform better.

How Students Feel about Different Skill Levels

How Students Feel Compared to Peers

Midterm Grades by Experience
Quiz Average by Experience

How aware are they of gaps?
How do they feel about it?

Feel equal
Feel peers know more
Feel peers know less
Feel held back
Feel left behind
Don’t notice
Don’t care