ITEST

project
**project**

- **goal**: get computer science into public schools
- **approach**: scalable game design to motivate and educate students to learn about computer science through game design starting in middle school
- **research**:
  - equity: gender, underrepresented (Native Americans)
  - transfer to STEM: “now that you can make the game, can you make a science simulation?”
  - computational thinking (an NSF priority)
- **scope**:
  - years 1-3: strategic exploration of Colorado spectrum
  - potentially: years 4-8: scale up to US.
a LARGE project

Oglala, SD to Ignacio, CO
715 mi – about 12 hours 40 mins drive time

Boulder (co grad rate: 36%)

Aurora (co grad rate: 18%)

Pueblo (co grad rate: 11%)

Ignacio (co grad rate: 1.6%)

1120 students total
results

- keep in mind the non self-selected nature of this study
- this is NOT
  - a Friday afternoon computer club
  - an after school program
  - a summer camp
- this is about broadening participation through the inclusion of ALL students in public schools
I would like to take another game design class

- strongly agree or agree (n = 197)
- 78% Girls
- 68% Boys
- compare to 1 girl at high school level in entire BVSD advanced game course in 5 semesters
gender
I enjoyed designing games on the computer

- strongly agree or agree (n = 196)
- 85% Girls
- 84% Boys
language
I would like to take another game design class

- strongly agree or agree (n = 190)

- 63% Spanish
- 77% English
language
I enjoyed designing games on the computer

- strongly agree or agree (n = 189)
- 80% Spanish
- 86% English
Ethnicity

I would like to take another game design class

- strongly agree or agree (n = 203)
- 74% minority
- 76% white
Ethnicity

I enjoyed designing games on the computer

- strongly agree or agree (n = 202)
- 83% minority
- 88% white
exposure

in some of the school districts (Aurora) we get over 900 students per year exposed to computer science per school

compare to the average of 30 self selected students per summer camp
more info

♦ [http://scalablegamedesign.cs.colorado.edu](http://scalablegamedesign.cs.colorado.edu)