CS 10K: IDoCode: A Sustainable Model for Computer Science in Idaho High Schools

IDoCode is a rigorous Computer Science secondary teacher preparation program at Boise State University. The program attracts pre- and in-service teachers seeking a high quality state certified CS teacher preparation program that prepares them to instill problem solving, collaboration, and technology skills essential for nearly every occupation in our modern economy.

Goals
- Significantly increase highly trained CS teachers
- Provide free nationally recognized CS curriculums
- Provide quality CS teacher preparation – first approved CS endorsement program in state
- Reach more – and more kinds of – students

Programs
- GC – CS Teacher Endorsement (20 credits)
- MS in STEM Ed. CS Emphasis (35 credits)
- BS in CS Secondary Education Emphasis
- Recruiting a fifth cohort - summer 2018

Teacher Outcomes
- Four cohorts with a total of 64 teachers have started representing 38 schools in 20 districts
- 37 teachers achieved training sufficient to teach ECS, CSP, and CS A – 7 more ready Sp’18
- 4 teachers received the Graduate Certificate – 4 more have completed the course work
- 3 teachers received the Master’s degree – 4 more are ready to graduate summer 2018
- 2 teachers have completed the CS Endorsement
- Partnership with Idaho Digital Learning Academy allows teachers to teach across the state in an online format

Student Impact (3 year results)
- Growth from 3 schools offering CS to nearly every high school in the Treasure Valley
- Treasure Valley high school CS student enrollment up from 44 students to over 1400
- Concurrent enrollment: 245 students in 2 years
- Advanced Placement: State-wide doubling of AP CS A tests taken in 2017 to 123; and 192 AP CSP tests taken (new in 2017)
- Female participation nearly doubled to 24% for existing curriculum and 33% using the new curriculum
- Hispanic participation grew from 0 to 16%

Success through Partnerships
- Local districts to support and promote initiatives
- Support teachers and increase student interest through workshops, mentoring, support from industry, forums, and other community events
- Promote student diversity with NCWIT programs
- Participated in the creation and adoption of the Idaho K-12 Content Standards for Computer Science, and national Praxis exam update
- Partnerships with IDLA, ITC, and the Idaho STEM action center to extend CS opportunities
- Industry representatives to build support

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