

Operation Reboot: Transforming Unemployed IT Workers into High School Computing Teachers

National Science Foundation Grant for \$2.5 million over 3 years

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Details

Operation Reboot combines Georgia Tech's innovative high school computing teacher training program and the successful Georgia Teacher Alternative Preparation Program (GaTAPP) to transform a total of 30 unemployed IT workers into high school computing teachers over three years. Each IT worker is paired with an existing computing teacher, and the pair co-teaches two computing classes for one year. While the IT worker is co-teaching for one year, he or she is also completing the process to become a certified teacher and earning a computer science endorsement. Each pair of an IT worker and an existing computing teacher will be mentored by an exemplary computing teacher. A teacher's motivation, self efficacy, job satisfaction, and commitment to teaching are closely linked with his or her professional identity. Through the teacher workshops at Georgia Tech, courses needed for GaTAPP, co-teaching, and mentoring we will help the IT worker transform his or her identity into that of a computing teacher. In addition, the existing computing teacher will update his or her skills through co-teaching with the former IT worker and by attending training. By the end of three years, we hope to have 30 new teachers that were former IT workers and 30 existing teachers with an improved understanding of computing and computing pedagogy. This should result in improved computing education for at least 4,600 students over 3 years

Current Status

The first group of unemployed IT workers has been selected from 62 candidates. They have completed a course on the essentials of effective teaching. They started co-teaching computing courses with the existing computing teachers in January 2010. Each pair of an IT worker and existing computing teacher now has an experienced mentor. Each IT worker has a new laptop that has been loaded with all the software and tools that we use in our teacher workshops: Media Computation, Scratch, Alice, Greenfoot, GridWorld, CS Unplugged, and DrJava. Operation Reboot has purchased books for the co-taught courses (some schools had no books for these courses). Both the IT worker and the existing computing teachers have started training through webinars and weekend teacher workshops. We are currently recruiting schools and unemployed IT workers for the second group which will be selected in May and the IT workers will start training in July 2010.

