

# Preparing Pre-Service Teacher Candidates for the Praxis Exam: An Innovative Model of Blended Support

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## ABSTRACT

The expansion of K-12 computer science (CS) has driven a dramatic need for educators who are trained in CS content and pedagogy [1]. This poster describes our effort to train teacher candidates (i.e., pre-service teachers who are students seeking degrees within a College of Education), who are specializing in secondary mathematics education, to be future CS educators. We specifically describe our collaboration to provide a blended preparatory six-week training for the ETS CS Praxis exam (5652), assisting our pre-service students in satisfying the CS certification requirements in our state before they graduate and begin their professional teaching career. Given the unique challenges of pre-service CS teacher preparation [2], blended models, which combine both in-person and online instruction, are an effective approach to building a pre-service program.

Within our pre-service CS program, students first complete a two-course pathway that prepares them in AP CSP content and pedagogy experiences, including observations in local AP CSP classrooms [3]. After completing the two courses, our students participate in the blended version of the WeTeach\_CS Praxis preparation course to achieve certification. The in-person support provided by the blended model contributed significantly to certification success in this project. With a cut-score of 149 for the Praxis exam, all 11 of our pre-service students who completed the course received a passing score (including one student with a perfect score of 200, and another student with a 195); the average score for our pre-service students was 175. An additional 11 in-service teachers, with diverse backgrounds in CS content knowledge, also participated in the blended Praxis preparation course, with an average score of 166.

Given the unique challenges of pre-service CS teacher preparation, university pre-service CS teacher programs should look to innovative models of teacher support developed by in-service programs to make substantial gains in CS teacher certification. Incorporating an asynchronous online course that allows teachers with a wide range of prior experience in CS to learn at their own pace with in-person coursework and support appears to be a viable model for assisting non-CS major teacher candidates in achieving a CS certification. With the blended model, even teachers with no background knowledge in CS were successful.

## CCS CONCEPTS

Computing education→K-12 education; Social and professional topics→Professional topics→Computing education→Model curricula

## KEYWORDS

Teacher Professional Development, Teacher Certification, Pre-service Teacher Training

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