

Difference in Pay Leave Report

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The purpose of my Difference in Pay leave was to evaluate open-source autograding platforms suitable for use in Computer Science and to establish the infrastructure necessary for a pilot deployment at Sonoma State University. During the leave I made substantial progress toward these objectives.

I evaluated PrairieLearn as the primary candidate platform and obtained access to the hosted PrairieLearn service to become familiar with question development and platform capabilities.

Working with Information Technology, I established an SSU-hosted virtual machine intended for a self-managed PrairieLearn deployment. This work included provisioning the server, obtaining administrative access, and coordinating network and firewall configuration changes needed to support future deployment.

A significant portion of the project involved investigating integration with the University's authentication infrastructure. During the leave period, the campus migrated to Microsoft-based single sign-on, requiring the deployment strategy to be adapted to the new authentication environment. Progress toward full SSO integration was further affected by changes in campus IT leadership during the implementation period. Nevertheless, the infrastructure and institutional coordination completed during the leave provide a foundation for completing a pilot deployment.

The work completed during the leave advances the long-term goal of providing an open-source autograding platform that can support placement examinations, challenge examinations, formative assessment, and other instructional activities within the Computer Science program and potentially other STEM disciplines at Sonoma State University.

I am grateful for the opportunity my Difference in Pay leave provided to begin this work. Although full deployment of a self-hosted PrairieLearn instance remains a work in progress, the leave allowed me to gain practical experience with modern authentication technologies, cloud-hosted educational platforms, and the deployment challenges associated with integrating applications into an institutional IT environment. These experiences will inform both my teaching and future development efforts, particularly in Computer Security, where topics such as single sign-on, authentication protocols, and secure application deployment are central to the curriculum.