Preparing Secondary Mathematics Teachers in Statistics Through a Dynamic Repository

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Secondary mathematics teachers are typically not equipped to teach statistics, yet school districts assume teachers are qualified. Teachers who lack a statistics background in their mathematics education and teacher preparation programs struggle to make teaching these concepts exciting and enlivening. Some of these teachers are tasked with teaching concurrent enrollment introductory statistics, yet they are ill-equipped to bring a college course for university credit to their high school. At Utah State University (USU), we bridged this gap for our concurrent enrollment introductory statistics teachers to deliver a high-quality experience for high school students. We created a repository of teaching materials for the concurrent enrollment teachers to provide them both the content and pedagogical content knowledge to integrate active-learning experiences, use of technology, and quality assessments in alignment with the recommendations of the ASA GAISE Report (2016). This repository has led to collaboration between secondary teachers and USU instructors as well as improved coordination of objectives, lessons, and pedagogy at the secondary and college levels. Through this dynamic online repository, our teachers access teaching materials, class activities and ideas, sample assessments, and end their course with a common departmental final exam. This presentation will demonstrate the use of an online repository as a coordinating and as a training tool that enhances course quality at both the secondary and collegiate levels.