Affordable Learning Implementation Grant report Dr. Anne Royer January 6, 2022

My first experience with affordable learning implementation was wildly successful; I saw the students learning deeply and getting comfortable with reading, interpreting, and thinking critically about scientific papers. I ended up using exclusively primary literature that the University has access to. In finalizing course design, I discovered two new resources that were invaluable: a website that allowed interactive reading, and a pedagogical method developed to help undergraduates learned directly from primary literature.

The website, <u>Perusall.com</u>, a free site that allowed students to read the papers interactively. Students could comment anonymously, asking questions or making observations. Subsequent readers would then answer questions or upvote comments they found helpful or questions they also had. I've recommended it to several other faculty in my department who are excited to try it, and plan to implement it in other more traditional classes I teach that include smaller primary literature components.

The pedagogical approach, the <u>C.R.E.A.T.E. method</u>, gave me a scaffolded framework to help students build confidence and skill in reading scientific papers from fields that are initially unfamiliar with. Rather than trying to reinvent the wheel, this approach helped me figure out exactly how and when to use concept mapping, cartooning, figure annotation, group work, and individual writing to support my students through a task that at first felt overwhelming and impossible to learners who were more familiar with lectures and textbooks.

I certainly have a lot to learn about how to teach more skillfully using this style, but I'm very happy with the results I've already seen in my first semester. The students clearly appreciated the use of the materials; I got the highest rating I've ever had for the "Readings Appropriate" question on the online course evaluations (4.82). Many students commented on how much they liked using the Perusall platform. They also gave positive ratings for "I am more comfortable and confident reading primary biological literature, even without extensive background knowledge" (4.52). This was a major learning objective for the course, facilitated directly by the affordable learning implementation.

Working with the library ALI program was so helpful in supporting me as I worked to implement a teaching style that is completely new to our department. I've already advised several other faculty who are interested in moving in this direction, so it's clear that the ALI grant I received is producing a beneficial ripple effect. Thank you for your help, and for putting resources behind moving this initiative forward.