Limited research exists on online delivery of the co-curricular activities that CITE funds: internships, service learning, study abroad, and undergraduate research. However, there are a handful of studies that provide guidance on transitioning face-to-face activities to online or remote ones. Overall, these studies indicate that students appreciate and benefit from the opportunity to engage in these co-curricular activities remotely and/or online. Intentional curriculum design, organized administration, communication, and continuous feedback are key to a successful experience which can be accomplished even when there are technical difficulties.

**Internships**

Much of the literature on internships in remote or online settings involves simulated internships with fictitious partners that are created by the internship coordinator. However, Chand and Deshmukh (2019) were able to create an online internship that paired college students with under-resourced elementary schools in India. In the first phase of the internship, interns created over 4,000 educational math and science videos for grade school students. In the second phase, the interns disseminated selected videos to teachers in under-resourced areas. Results from the quantitative analysis indicated that the math and science scores of grade school students improved from using the videos. The interns experienced small, but significant increases in reflective learning.

**Service-Learning**

Of the four types of co-curricular academic programs, service-learning has been most extensively executed in an online environment. Students participating in online service experiences report positive outcomes. One study found that there was no difference in outcomes for face-to-face and online students (McGorry, 2012). Benefits of service-learning in an online environment included having a transformational learning experience, developing professional skills, and increasing in reflective learning (McGorry, 2012; Chanlin et al., 2016; Mcwhorter et al., 2016). Students also developed an awareness of their community partners and of the unique challenges of those that they were serving (Chanlin et al, 2016; Shah et al., 2018).

**Undergraduate research**

A study on undergraduate research in an online course presented a senior course for science majors and then shared initial outcomes of the project (Shaw et al., 2012). Students in the course had a faculty member who coordinated their research and a supervisor at an in-person lab that was local for the student. The study found that student pass rates in the online course were comparable to those in the in-person course and that 90% of the students in the online course were satisfied with their experience. Benefits for students included developing research skills, developing professional skills, and getting a boost in their career credentials. One of the benefits for the faculty was maximized time to focus on research and not supervision since the students were supervised by the local supervisor. Challenges of the course were related to communication at the start of the project and throughout the experience.
Study Abroad

Harrison et al. (2010) present a case study of a global model for social justice education. Students interacted with social justice issues through personal reflections and through virtual presentations from international social justice advocates. Harrison et al. (2010) found that students did become more aware of social justice issues, but the impact of the course was mediated by level of value students assigned their online coursework. Howard et al. (2017) evaluated a study abroad model that allowed students to participate remotely in an ongoing study abroad course on intercultural communication. Through web conferencing, students were able to share the experience of their peers who were traveling abroad. While there were some technical challenges with this model, participants reported high levels of satisfaction. Online students were more satisfied and had their expectations met to a higher degree than the in-person students. The online students were highly engaged in the course and all participants demonstrated improvement in intercultural communication scales.

References


International Review of Research in Open and Distributed Learning, 14(5), 69–81. 
https://doi.org/10.19173/irrodl.v14i5.1551