

Center for Research Education-Entrepreneurship and Science Communication Opportunities (CRESCO): Promoting Research and Scientific Communication Skills in Pandemic Times

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Abstract

Developed with the support of two successive US Department of Education awards, the Center for Research Education-Entrepreneurship and Science Communication Opportunities (CRESCO) is a physical and virtual space at the library of the University of Puerto Rico-Medical Sciences Campus (UPR-MSC). It offers mentoring, tutorials, workshops, and software to support the development of research and scientific communication skills in students and faculty. Due to the COVID-19 pandemic, since March 2020 all CRESCO services have been offered virtually. Tutorials, workshops, and mentoring address topics in statistics, literature searching, and use of research software. Service statistics are collected and a questionnaire is used to evaluate the workshops. The number of participants who received mentoring or consulted the tutorials increased from 3,332 in 2019 to 6,867 in 2020, and to 5,142 by September 2021. Workshop attendance increased from 42 in 2019 to 224 in 2020, and to 155 by September 2021. When evaluating the online workshops, participants considered that their acquired level of learning was high or extremely high regarding the following topics: use of Intellectus Statistics (87%, n = 57); selection of statistical tests (78%, n = 68); use of Turnitin (85%, n = 76); literature search (91%, n = 58); and citations and references in Mendeley (90%, n = 67). In conclusion, the transition of CRESCO activities to an exclusively virtual format amid the COVID-19 pandemic has increased the number of participants in its educational activities in support of the development of research and scientific communication skills.

Introduction

Center for Research Education-Entrepreneurship and Science Communication Opportunities (CRESCO)



Physical and virtual venue at the UPR-Medical Sciences Campus library

Provides **tutoring, mentoring, and access to software and databases** to support the development of research and scientific communication skills



Services are targeted to **students and faculty** receiving training on clinical and translational research and scientific entrepreneurship, and are also available to other university communities.

Prior to the COVID-19 pandemic, most of CRESCO services were **offered in person**.



In order to respond to the pandemic, all **services became virtual**. Interestingly, after this change, there was a marked **increase** in the number of people requesting and using services.

Methods

Online **tutorials, workshops, and mentoring** on research topics



Service **statistics** are collected and analyzed

An **online questionnaire** is used to evaluate the workshops



Results



Fig. 1. Participants who received mentoring or consulted the tutorials



Fig. 2. Participants in workshops

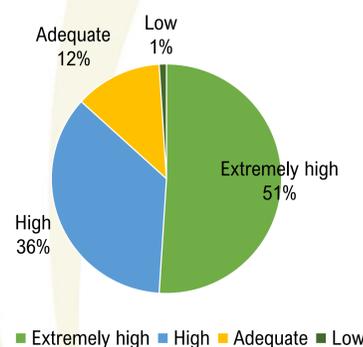


Fig. 3. Acquired level of learning through the use of Intellectus Statistics (n=57)

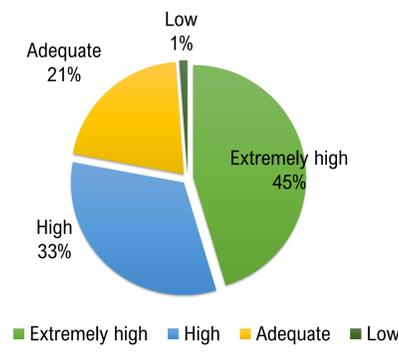


Fig. 4. Acquired level of learning on selection of statistical tests (n=68)

Results

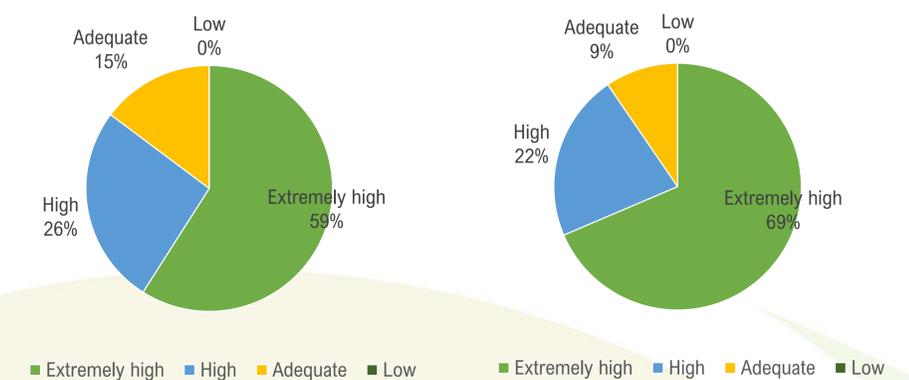


Fig. 5. Acquired level of learning through the use of Turnitin (n=76)

Fig. 6. Acquired level of learning through the use of PubMed to search literature (n=58)

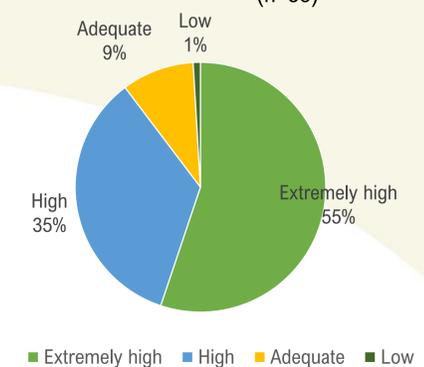


Fig. 7. Acquired level of learning through the use of Mendeley to prepare citations and references (n=67)

Conclusions

- CRESCO's **hybrid service model** allowed its **rapid adaptation** to the new educational scenario created by the COVID-19 pandemic.
- The **completely online modality** has allowed **more participants** to benefit from the Center's educational services, when compared with the face-to-face environment.
- The transition from a **mostly face-to-face** to a **completely online delivery of service** has increased the number of participants in CRESCO's educational activities in support of the development of research and scientific communication skills.

Acknowledgments

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