COBIMET'S Distance Education Online Certification for Librarians: Participants Assessment and Satisfaction Survey Results

Crespo, Carlos [1]

[1] COBIMET Executive Director, ccrespo@cobimet.org

Abstract

This viewpoint article presents the development and outcomes of a distance education certification offered in 2022 by the *Consorcio de Bibliotecas Metropolitanas* (COBIMET) for librarians in Puerto Rico. The program's inception was driven by the need to equip librarians with the skills and knowledge required to effectively support learners and educators in the evolving landscape of online education, technology, and information access. The certification consisted of five modules covering topics such as Learning Through Distance Education, Information and Communication Technology and the Internet, Assessment and Evaluation, and Instructional Design. The findings from the online satisfaction survey indicate that the program has met high levels of participant satisfaction, particularly in terms of course design, content, assessment methods, and overall delivery. Twenty-two (22) out of the 27 participants completed the certification (81% retention rate). Pre-test results showed that only 40% of participants scored 80% or more correct answers at the beginning of the certification, while at the end of the certification, 100% of participants scored 80% or more.

Participants' constructive feedback has provided insights for program enhancements and expansion to a broader group of library professionals.

Resumen

Este artículo de opinión presenta el desarrollo y los resultados de una certificación de educación

a distancia ofrecida en 2022 por el Consorcio de Bibliotecas Metropolitanas (COBIMET) para

bibliotecarios en Puerto Rico. La creación del programa fue motivada por la necesidad de

equipar a los bibliotecarios con las habilidades y conocimientos necesarios para apoyar de

manera efectiva a estudiantes y educadores en el cambiante panorama de la educación en línea,

la tecnología y el acceso a la información. La certificación constó de cinco módulos que

abordaron temas como Aprendizaje a través de la Educación a Distancia, Tecnología de la

Información y Comunicación y la Internet, Evaluación y Evaluación, y Diseño Instruccional. Los

resultados de la encuesta de satisfacción en línea indican que el programa ha alcanzado altos

niveles de satisfacción por parte de los participantes, especialmente en cuanto al diseño del

curso, el contenido, los métodos de evaluación y la entrega general. Veintidós (22) de los 27

participantes completaron la certificación (una tasa de retención del 81%). Los resultados de las

pruebas previas mostraron que solo el 40% de los participantes obtuvieron el 80% o más de

respuestas correctas al comienzo de la certificación, mientras que al final de la certificación, el

100% de los participantes obtuvo el 80% o más. Los comentarios constructivos de los

participantes han proporcionado ideas para mejorar el programa y expandir su ofrecimiento a un

grupo más amplio de profesionales de bibliotecas.

Palabras clave: certificación en línea de educación a distancia, bibliotecarios integrados, desarrollo profesional, bibliotecología, evaluación del aprendizaje, encuestas de satisfacción, modelo ADDIE.

Introduction

The increasing demand for virtual resources and remote assistance necessitates librarians' proficiency in traditional and digital practices. Preparing librarians in distance education is paramount due to the evolving landscape of education, technology, and information access. Education is rapidly shifting towards online and remote formats. Librarians must embed themselves and be proficient in distance education tools, technologies, and methodologies to support learners and educators in virtual environments effectively (Dalal, 2022). Also, Librarians are increasingly involved in designing and delivering online instructional sessions (Miyaoka, 2023). They need to understand pedagogical principles, create engaging online content, and assess learners effectively as specified in Puerto Rico's Department of Education Librarian Policies and Procedures Guidelines named CARTA CIRCULAR NUM. 10-2022-2023. Furthermore, Librarians must ensure that their online resources and services are accessible to all users, including those with disabilities.

In 2020, COBIMET developed the first instructor-led 40 contact hours online distance education certification for librarians in Puerto Rico. The Certification is covered in five modules, i.e., 1) Learning Through Distance Education, 2) Information and Communication Technology and the Internet, 3) Assessment and Evaluation, 4) Instructional Design, and 5) Instructional Design II. The feedback provided by participants prompted a revision of the content and a new

group of 27 participants in 2022. This viewpoint article will discuss the certification's
instructional design model, method, and results.

Literature Review

Since 2001, researchers have expressed the need for distance education training.
According to Gupta (2001), there was a shift from an instruction-oriented learning model to a
learner-centered which helped the development and spread of distance library services.
Librarians should pursue formal training and education regarding distance learning services like
online reference, online document delivery, and internet-based information. Short-term courses,
training programs, and workshops will support distance education library services in online
environments.

Most recently, the 2020 COVID-19 pandemic affected the delivery of information
literacy instruction and library services across the United States (Dalal, 2022). In 2021, a six U.S.
higher education study of first-year students' research preparedness revealed that librarians'
interactions were fundamental to developing remote information literacy skills. Students were
less likely to use library resources, had problems accessing information, or felt overwhelmed by
the volume of available information. The authors expressed that intentional librarian-student
interactions are crucial to developing information literacy in remote environments, and libraries
should prepare relevant remote services in the event of future shutdowns (Dala, 2022).

At the Brooklyn Campus of St. Joseph's College New York, during the 2020 COVID-19
pandemic, librarians developed an "embedded librarianship model of instruction, incorporating
scaffolded information literacy modules that could be delivered remotely" (Miyaoka, 2023,
p.169). The embedded librarian model "works in close collaboration with the instructor,

facilitating a connection with the vast online library materials and services available" (Charles & Defabiis, 2021, p.371). Miyaoka performed an efficacy study of the model by administering a 15-item First Year Experience (FYE) Library Literacy Scale to 118 students at the start of the semester as a pre-test and again at the end of the semester as a post-test. The results present a significant improvement from pretests to posttests. The scaffolded and embedded models described by the study, by delivering short instruction sessions, suggest a more significant impact on learning during their information-seeking process than a one-shot library instruction session.

According to Green (2019), library professionals must be involved and present in multiple learning settings like face-to-face, online, hybrid, blended, flipped, and others. Besides, Green (2019) discusses that librarians turn to instructional design degrees or certifications to address a "changing list of learning management system characteristics, web-based tools, adaptive and assistive technologies, and institutional regulation" (p.5).

Course Instructional Design Model

Instructional design principles and methodologies provide a structured approach to designing and developing online courses, ensuring they are effective, engaging, and aligned with learning objectives. The ADDIE model was used as an instructional design framework for the certification. The acronym ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation (Spatioti, 2022). Here is an overview of each stage:

1. **Analysis:**

    In the Analysis stage, the instructional designer identifies the learning needs and goals of the learners. This involves conducting a thorough needs assessment, understanding the target audience, and determining the learning objectives.

2. **Design:**

   In the Design stage, the instructional designer uses the information gathered during the
   Analysis stage to create a detailed instructional plan. This plan outlines how the content
   will be organized, the instructional strategies, and the assessment methods.

3. **Development:**

   In the Development stage, the learning materials and resources are created based on the
   design plan. This includes creating content, multimedia assets, assessments, and
   supporting materials.

4. **Implementation:**

   The Implementation stage involves the rollout of the instructional materials to the target
   learners. It includes the delivery of the course or learning experience, whether in a
   traditional classroom, online, or in a blended format.

5. **Evaluation:**

   In the Evaluation stage, the effectiveness of the instructional design and delivery is
   assessed. This stage helps identify areas for improvement and informs future iterations of
   the learning process.

By incorporating these instructional design principles provided by ADDIE, the distance
education certification program for librarians aims to provide clearly defined steps, objectives,
and standard stages (analysis, implementation, and evaluation) to equip them with the knowledge
and skills needed to support online learners and educators in their roles. (Trust, 2018).

Method

The 2022 four-month certification impacted 27 participants from September to December. There were five online learning modules: 1) Learning Through Distance Education, 2) Information and Communication Technology and the Internet, 3) Assessment and Evaluation, 4) Instructional Design, and 5) Instructional Design II. Participants took pre-tests and post-test questionnaires to determine distance education theory and practice knowledge. To compare the academic gains achieved, they were required to have an 80% approval rate of all assessment activities and tasks through each of the five modules. The assessment activities included discussion forums, assignments, and quizzes. At the end of the certification, they were required to complete a 23-question online satisfaction survey (Appendix A). All course activities were offered through the Moodle e-learning platform. The survey was open for one week. After this, the collected data was analyzed.

The online satisfaction survey had 17 closed and six open-ended questions that focused on participants' perceptions of content, learning outcomes, and course delivery. The closed-ended questions focused on the participants' perception of the certification design, content, assessment, delivery, support, and overall satisfaction. Open-ended survey questions focused on course efficacy in delivering expected learning objectives and participant recommendations.

Results

Twenty-two (22) out of the 27 participants completed the certification (81% retention rate). Pre-test results showed that only 40% of participants scored 80% or more correct answers at the beginning of the certification, while at the end of the certification, 100% of participants scored 80% or more.

The online satisfaction survey data answers were analyzed to determine if the participants reflected satisfaction or dissatisfaction. Regarding this topic, 96% of participants expressed that they were very satisfied or satisfied with the certification (question 13). While 91% to 100% of participants indicated that they totally agree or agree with the aspects of acquiring competencies, theory application, and subject knowledge (questions 8 and 9).

The survey provided 10 questions (2, 3, 4,5, 6, 7, 10, 12, 21,22) related to course organization, structure, design, and content satisfaction. The responses to those questions ranged from 91% to 100% totally agree or agree. There were 3 questions (7, 20, 23) about the course instructor and learning management technical support, 100% of participants either responded totally agree or agree.

Through the survey's open-ended questions, participants expressed the need to expand the certification to a broader group of library professionals. One participant expressed that the certification should be taken by librarians entering the professional field. Also, participants said that the course will be helpful in their professional development and growth.

 Regarding course content and organization, two survey answers reflected the participant's recommendations to divide the learning materials in Modules 4 and 5 into additional modules and the use of more instructional objects that could reduce the quantity of reading material in some of the modules.

Conclusions

In conclusion, the development and implementation of the distance education certification program for librarians in Puerto Rico have yielded positive outcomes and provided

valuable insights into the growing need for proficiency in distance education and online instructional support. The following key conclusions can be drawn from this experience:

1) Growing Demand for Distance Education Proficiency: The increasing demand for virtual resources and remote assistance, coupled with the evolving landscape of education, technology, and information access, underscores the critical importance of preparing librarians with proficiency in distance education tools, technologies, and methodologies.

2) Librarians' Role in Online Instruction: Librarians are increasingly involved in designing and delivering online instructional sessions, emphasizing the need for them to understand pedagogical principles, create engaging online content, and assess learners effectively.

3) Relevance of the COBIMET Certification: The COBIMET certification program, developed in response to these demands, consists of five well-structured modules covering various aspects of distance education. Feedback from participants has been positive, and the program has demonstrated its efficacy in enhancing participants' knowledge and skills.

4) Instructional Design Framework (ADDIE): The use of the ADDIE instructional design framework has provided a structured approach to course development. This model's stages—Analysis, Design, Development, Implementation, and Evaluation—have ensured that the certification program aligns with learning objectives and focuses on continuous improvement.

5) Positive Outcomes: The results of the certification program indicate significant academic gains among participants. Pre-test scores increased substantially, demonstrating the program's effectiveness in enhancing participants' knowledge.

6) High Participant Satisfaction: The online satisfaction survey data reveals high levels of

participant satisfaction with the certification program. Most participants expressed

satisfaction with the course's design, content, assessment methods, and overall delivery.

Participants also provided constructive feedback for further improvement.

7) Recommendations for Future Development: Participants' suggestions for expanding the

certification to a broader group of library professionals and considering it for entry-level

librarians reflect the program's potential for broader impact. Additionally,

recommendations to further divide content and incorporate instructional objects

underscore the commitment to continuous improvement.

In summary, the COBIMET distance education certification program has demonstrated its

effectiveness in preparing librarians for the evolving landscape of online education and

instructional support. The positive outcomes and high participant satisfaction indicate that this

program is crucial in equipping librarians with the skills and knowledge needed to excel in their

roles as distance education and online instructional support specialists. Future developments and

refinements will further enhance its impact on the professional development and growth of

library professionals in Puerto Rico.

References

Banas, J., & Wartalski, R. (2019). Designing for Community in Online Learning Settings. *Library Technology Reports, 55*(4), 8–13.

Charles, L. H., & DeFabiis, W. (2021). Closing the transactional distance in an online graduate course through the practice of embedded librarianship. *College & Research Libraries, 82*(3), 370–388.

Dalal, H. A., Charles, L. H., Dempsey, M., Berg, C., Bushby, R. D., & Dalrymple, J. (2022). Intentional Librarian-Student Interactions during COVID-19: A Clear Bridge to Developing First-Year Student Information Literacy Skills. *Journal of Information Literacy, 16*(1), 144–164.

Green, L. S. (2019). Online Learning in K–12 and Higher Education and the Library Professional. *Library Technology Reports, 55*(4), 5–7.

Gupta, D. K. (2001). Librarians' Changing Role in Distance Education: Need for Training. *Journal of Library Administration, 32*(1–2), 225. https://doi-org.uapr.cobimet.org/10.1300/J111v32n01_01

Miyaoka, M., Toolsidass, R., & Magee, M. (2023). Embedded Librarians and Scaffolding for Remote Learning. *Portal: Libraries and the Academy, 23*(1), 169–195. https://doi-org.uapr.cobimet.org/10.1353/pla.2023.0010

Ramos, E. (October 14, 2022). *Política pública sobre las normas y las directrices del Programa de Servicios Bibliotecarios y de Información para las bibliotecas escolares en las escuelas primarias y secundarias del Departamento de Educación de Puerto Rico*. [Carta Circular núm. CC-10-2022-2023]. Retrieved from

http://intraedu.dde.pr/Cartas%20Circulares/CARTA%20CIRCULAR%20NUM.%2010-

2022-2023-FIRMADO.pdf

Spatioti, A. G., Kazanidis, I., & Pange, J. (2022). A Comparative Study of the ADDIE

Instructional Design Model in Distance Education. *Information, 13*(9), 402. MDPI AG.

Retrieved from http://dx.doi.org/10.3390/info13090402

Trust, T., 7 Pektas, E. (2018). Using the ADDIE Model and Universal Design for Learning

Principles to Develop an Open Online Course for Teacher Professional Development.

Journal of Digital Learning in Teacher Education, 34(4), 219–233.

APPENDIX A

Online Satisfaction Survey Questions	
Question	**Response**
1. Would recommend the certification with my colleagues	• Totally agree. • Agree • Disagree
2. The course was presented in a sequential manner	• Totally agree. • Agree • Disagree
3. The course provided an appropriate balance between instruction and practice.	• Totally agree. • Agree • Disagree
4. Navigation through the platform is easy and friendly.	• Totally agree. • Agree • Disagree
5. Course activities, resources, and synchronous sessions complement each other in valuable ways.	• Totally agree. • Agree • Disagree
6. The course instructions were clear.	• Totally agree. • Agree • Disagree
7. There are links available to request technical support if necessary.	• Totally agree. • Agree • Disagree
8. The course developed my skills and abilities in the topics.	• Totally agree. • Agree • Disagree
9. The course developed my ability to apply theory to practice.	• Totally agree. • Agree • Disagree
10. The design of the pages allows you to locate the desired information easily	• Totally agree. • Agree • Disagree
11. In this course I learned a lot.	• Totally agree. • Agree • Disagree
12. The content is organized logically and sequentially	• Totally agree. • Agree • Disagree
13. How satisfied were you with this course?	• Totally agree. • Agree • Disagree

Online Satisfaction Survey Questions	
14. Considering both the limitations and possibilities of the topic and the course, how would you rate the general effectiveness of this course?	• Open-ended question
15. Did this course help you achieve your learning objectives?	• Open-ended question
16. What were this course's most valuable modules/resources/activities?	• Open-ended question
17. Do you think there are modules/resources/activities within this course that could be improved? If so, how do you think this could be done?	• Open-ended question
18. How applicable is your new knowledge in your daily work or life?	• Open-ended question
19. What advice would you give to another participant considering taking this course?	• Open-ended question
20. The COBIMET team was available to address my concerns	• Totally agree. • Agree • Disagree
21. Navigation through the platform is easy and friendly.	• Totally agree. • Agree • Disagree
22. The evaluations are relevant as they relate to the studied topics.	• Totally agree. • Agree • Disagree
23. Las evaluaciones fueron calificadas dentro del tiempo esperado.	• Totally agree. • Agree • Disagree