THE CASE STUDY RESEARCH OF EXAMINING THE USEFULNESS AND PERCEPTION OF THE ONLINE TEACHING PREPARATION PROGRAM

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Abstract

During the COVID-19 period, most of the classes were shifted from in-person to online learning for many universities across the globe. Some university instructors may have no or limited experience in online class settings and delivery. Many institutions provided training on how to develop and deliver online classes to their instructors, but the covered topics were scattered. This qualitative research was aimed to investigate the needs of the program, its usefulness, perceptions, and scope of topics that should be covered in online teaching preparation program. As result of this research, the skills and characteristics of effective online teachers were identified and discussed as well as details on mandatory topics that should be included in the training for online teaching in higher education institutions. The information on how to better prepare new online instructors was also presented. The research findings were applied to the existing DSU online

teaching program or "Online Learning Academy" to enhance the preparation for online instructors, and they can also be applied and utilized to similar professional development at other institutions.

Keywords

Online Classes, Online Learning, Distance Education, Online Teaching, Online Instructors, Online Learning Environment, Online Teachers, Online Students, Faculty Development, Online Teaching Preparation Online Teaching Academy, Learning Management System, Online Class Technology

1. Introduction

The Covid-19 pandemic has changed the world to the stage where we have never seen before. Since the pandemic began, technology became an integral part of everyday life and heavily involve as well as influences how to conduct day-to-day activities. Education was also greatly impacted by the virus as classrooms were required to transform within a short period of time to facilitate the changes and requirements from the administrations to ease the virus spreading in the form of social distance. The shift from traditional in-person classroom to online classroom was made within a short period of time to facilitate the changes during the Covid-19 period which caused challenges for teachers due to technology functions and characteristics of online classroom as teacher presence in online class is more complex and rebellious than traditional class setting (Rudestam & Schoenholtz-Read, 2002). Online instructors were required to modify their teaching methods and assessments, as well as made their best decisions on creating online learning opportunities, constructing resourceful learning environment, and composing effective learning tools. They also had to overcome any technology, time, and location obstacles (Aydin, 2005) to successfully facilitate online class.

2. Literature Review

In order to successfully deliver online classes, Berge (1995) stated in the framework that there are several necessary conditions and competencies that need to be focused on. Richey, Fields, & Foxon (2001) defined competency as "a knowledge, skill or ability that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment" (p. 26). These competencies can be classified into four areas: pedagogical, social, managerial, and technical. The pedagogical competency involved facilitation of learning activity and content instructions as well as supporting students during their learning process. The pedagogical

competency also included the assessment of learning outcomes (Manninen, Henriksson, Scheja, & Silén, 2015). The social competency elaborated on providing and fostering virtually social interactions and communication via a text-based medium to support learning environment in an online class (Bowman, 2001, p. 3). The managerial competency focuses on the authoritative figure of the classroom where the class instructors organize and manage interactions as well as provide leadership and direction of classroom. The technical role is associated with the support of technology and communication tools that was utilized in the class. Online teachers should be able to provide support and instructions on how to use the selected or assigned instructional tools.

Another domain that has been discussed frequently regarding online class development and delivery is the Community of Inquiry (CoI) framework. This framework was introduced by Garrison (2017) as the framework that provides the "context to conceptually and operationally define and operationalize metacognition in a socially shared environment" (p. 62). The CoI framework discussed three key elements and dimensions: social presence, teaching presence, and cognitive presence. These three dimensions collaborate and overlap with each other to create an effective and successful online learning environment. The social presence stimulates the environment of trust, welcoming, open, and resourceful communication in the classroom. The cognitive presence was defined as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" (Garrison et al., 2001, p. 11). The teaching presence focuses on the design of instructions, class activities, facilitation, and assessments. The CoI is the joining framework that brings together the social and cognitive processes to create meaningful learning and educationally worthwhile results.
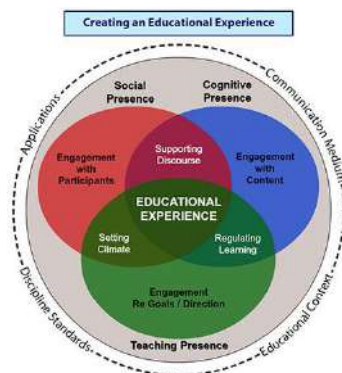

Figure 1: *Community of Inquiry Framework*

(Garrison, 2017)

There are other multiple research that explored and described teaching competencies in the online learning environment. The results of those research highlighted and supported the findings of this qualitative research. For example, Williams (2003) defined and described the four general categories of competencies for faculty in higher education as follow: learning and instruction, communication and interaction, management and administration, and technology. Another analysis on prior research by Guasch et al. (2010) regarding university instructor competencies for teaching in an online environment concluded that online instructors ought to have the following skills to be able to deliver online classes effectively and successfully: designing/planning function, social function, instructive function, technological domain, and management domain.

The numbers of institutions utilize instruments to measure online teaching competencies among their teaching faculty members while many institutions offer a workshop, seminars, or training on how to design, develop, and deliver classes in online format; however, most of these are yet to be systematically studied or tested (Martin, Budhrani, & Wang, 2019). Numbers of faculty members expressed that they did not feel they were ready to teach online, and there was a need to identify competencies to prepare faculty to teach online effectively (Lichoro, 2015). The research on teacher educators' readiness, preparation, and perception of teachers in fully online learning environment from Downing and Dayment (2013) described that faculty members considered online teaching to be time-consuming and require more preparation than an in-person class. The same research also suggested that faculty members without prior experience in online teaching felt they need technical and pedagogical support, and time management strategies guidance which made them feel like they were not ready to deliver their classes online. Additionally Gay (2016) indicates that the availability of online help desk services can support teaching in online environment immensely.

Yet, this qualitative research aimed to investigate the usefulness and perception of the online teaching preparation that was delivered to a group of online faculty members at Dakota State University in the form of a four-week workshop during the Summer 2020 semester. The workshop was launched as part of the teacher preparation program for online teaching during the Covid-19 pandemic where the majority of the classes were offered online. Additionally, the workshop was part of the grant funding that provided financial stipend for participating faculty members to develop or update their online classes to meet the quality assurance standards. The following objectives were used to guide The Online Learning Academy:

1. Analyze making the transition to online teaching

2. Explore building online spaces for online learning

3. Prepare students for online learning

4. Apply best practice techniques for managing and facilitating the online classroom

5. Explore techniques/tools for assessment of/for learning in the online classroom

The Online Learning Academy was held online in the asynchronous format where participants had to meet a certain deadline for each week. The following topics were used to guide the Academy each week:

Week 1 – Making the transition to online teaching and building online spaces for learning

Week 2 – Preparing students for online learning

Week 3 – Managing and facilitating the online classroom

Week 4 – Assessing learner outcomes

The participants also had to participate in the live webinar session on the last week; Week The main purpose of the webinar was to demonstrate the online tools that the university provides to support their instructional activities and to virtually meet everyone.

3. Purpose of This Study and Research Questions

This qualitative research was aimed to investigate the needs of the workshop, workshop usefulness, perceptions towards the workshop, and the scope of topics that should be covered in the Online Learning Academy. As discussed in the previous section, the current research on online teacher preparation or training is very limited. Several existing research examined and focused on ability, readiness, and attitude (Logan & Johnston, 2009). Therefore, this research explored the results of the launched "Online Learning Academy" to detect the efficacy and perceptions, and sought the topics that should be covered in the workshop to better and adequately prepare online instructors for effective online teaching. As results of this research, the detailed information on how to better prepare new or high-experienced online instructors was discussed and presented as well as applied to the existing DSU online teaching preparation or "Online Learning Academy" or similar professional development at other institutions.

The research questions were synthesized and developed to detect the skills, attitude, knowledge, and proficiencies in online teaching among college instructors who participated in the

Online Learning Academy. The questions were based on the practical approach and practice in online teaching and learning as well as the perceptions toward the academy.

The following research questions were used to guide this research:

- What are the skills that all effective online teachers should possess?
- What are the characteristics of effective online teachers?
- Did the Online Learning Academy help and adequately prepare for online teaching?
- What was the experiences of online teachers towards the Online Learning Academy?
- Who are the target audiences of the Online Learning Academy?

4. Methodology

The case-study qualitative research with the structured interview was used as the research style and main type of data collection for this study. The structured interview involves asking the participants identical predetermined set of questions (Roulin & Bangerter, 2012, p. 150). The participants of this research participated in the Online Learning Academy during Summer 2020, and they were informed about the research interview prior to their participation. The Department Deans were also informed about the study and interview participation to be in compliance with the research study protocol of Dakota State University.

4.1. Research Design

Johnson & Christen described the case study research method as it is often used to seek exploratory, descriptive, and explanatory research questions as well as focus on an individual's experience to explain certain phenomenon (2012). The structured interview questions were developed based on the stated research questions mentioned in the previous section in this article. After the interview questions were fully developed, they were sent to the Institution Review Board (IRB) at Dakota State University to be reviewed and examined. The IRB granted the approval for this research to continue and conduct an interview to gather all responses and data from the selected participants.

4.2. Data Sources

The 15 participants of this research were selected from the pool of instructors who participated in the Online Learning Academy during the 2020 Summer semester. The selected instructors were contacted via email to schedule the date and time to conduct the interview via Zoom online meeting portal. The department deans were also contacted and informed about the interview to collect the data for this research in order to prevent any complications with the

department, school, and university as well as to follow the proper research protocol and regulations that were established by the university and Internal Review Board. Each participant was interviewed with the following ten questions during the recorded interview session:

1. Would you please tell me a little bit about yourself? What subject areas are you teaching? How long have you been teaching online?

2. In your opinions, what is the most important skills for online teachers to possess and why (e.g. technology, pedagogy and teaching strategies, D2L LMS, or time management)?

3. In your opinions, what topics should be introduced, emphasized, or enhanced in online teacher preparation program.

4. What topics should be covered in the academy that was not already covered?

5. What are the characteristics of effective online teachers in your opinion (e.g. open-minded, flexible, or engaging)?

6. What is the most difficult part of teaching online?

7. What are the greatest benefits of teaching online?

8. Please describe your experience towards the Online Learning Academy. Was it positive? Did the academy help you to prepare online class and deliver it effectively?

9. Who should participate in the online learning academy?

10. Is there anything you would like to add?

Whilst some personal information might be shown on Zoom, the following identification information was not collected, recorded, and/or presented in this research: first name, last name, age, gender, and contact information. The participants were informed about the consent to be recorded and interviewed, and they were provided with a copy of the IRB form of consent electronically. However, several participants of this research requested to have their interview transcripts omitted from the research presentation or paper as they have concerns about their opinions and perspectives, or any other information that they don't want it to be available to the public.

4.3. Data Collection

The interview session was conducted during specific date and time that was convenient to each participant. There were 15 participants in total who participated in this research. The invitation email to recruit the participants was sent to all Online Learning Academy participants. The first 15 Online Learning Academy participants who scheduled the date and time for the

interview were included in this study. The interview sessions were concluded after the 15th participant completed the interview.

4.4. Data Analysis

After all of the 15 interview sessions were concluded, the recorded video clip was transcribed for each participant. The transcription process was handled by the automatic transcribing application in the Zoom meeting portal, and all the transcripts were reviewed for accuracy and completeness. The transcript data was transcribed and contained information provided by the participants in their own words in the Emic data format (McMillan, 2021). The data was organized into each interview question and responses from an individual participant for accuracy and ease of data organization and coding. The categories for the data were created after the data was coded during the data analysis to define the patterns.

The validity and trustworthiness of the data were also confirmed by performing the member checking process. According to McMillan (2021), member checking process is the steps that asked all the participants to review their own transcripts, interpretation, and conclusion to confirm accuracy and authenticity. In qualitative research, the member checking is the most important method to establish the validity and trustworthiness of the data as the participants who provided the data had a chance to review their responses, information, data, and findings.

5. Results and Discussions

The analysis of the data (interview responses) was presented below according to each research question.

5.1. Background information

All participants in this research have moderate to extensive experience in online teaching. The years of experience in online teaching was ranging from one to 17 years, and they came from various disciplines: Fine Arts, Digital Arts, English, Elementary Education, Information Systems and Technology, Computer Science, Cybersecurity, Native American Education, and Educational Psychology.

5.2. What are the skills that all effective online teachers should possess?

There were multiple skills that were mentioned during the interview process. The majority, 13 out of 15, of the participants agreed that online instructors should be flexible, skilled in

technology and learning management system, responsive to communication from students, understand pedagogical approach, able to manage time, and have creativity.

Several interviewed participants mentioned that instructors have to be flexible in the online learning environment to accommodate needs or changes that might occur to prevent students from completing any necessary tasks on-time. Two interviewed participants suggested that online instructors should be more considerate than usual when handling students' inquiries or requests as students and teachers in online classes communicate via text-medium only so students could sense encouragement and support from their instructors to urge them to continue with their online learning journey. Responsiveness is another key to success in online learning. Instructors ought to respond to students' inquiries and questions in a timely manner as well as provide feedback on their submissions within an acceptable timeframe so students could continue to work on the following tasks and improve their work quality based on the provided feedback.

Since online classes are being driven by technology and learning management system, instructors became the first line of support when technology or learning management system failed. Numbers of interviewed participants reported that online students tend to contact their instructors when they encounter problems either with class technology tools or learning management system either to inform about the issues or ask for solutions so online instructors should be able to respond, assist, or provide support within a timely fashion. Also, instructors who are skilled in learning management system could develop their classes with suitable tools and functions to help their students learn better.

The pedagogical approach is crucial for online classes as it considers to be the fundamental concept of teaching and learning. Instructors who fully understand the pedagogical approach could utilize their creativity and content knowledge to design and develop appropriate teaching methods and activities in an online learning environment. Learning activities in an online environment should be designed to be engaging and facilitate the learning process, in addition, to catering to all types of learning styles (Ally, 2004). The course design and pedagogical approach in an online environment should foster interaction opportunities activities for students such as discussion, chat, group work, or brainstorm as interaction becomes critical in online learning due to the nature of online classes and the time they spend online (Beldarrain, 2006). The interaction between students is considered to be a critical and integral part of Community of Inquiry, social presence.

Furthermore, providing appropriate class activities and effective online course orientation could lead to satisfying course experience.

5.3. What are the characteristics of effective online teachers?

Multiple characteristics of effective online teachers were mentioned during the interview such as flexible, knowledgeable, organized, engaging, dedication, communicative, empathy, consistent, and concise. Nonetheless, the term "flexible" came up when this question was asked as many participants indicated that flexibility and accommodating students' needs could help them succeed in online classes. Empathy should also be part of the characteristics as empathy would encourage students to open up and seek help when needed.

A few participants suggested that online teachers should be a part of the online discussion board not only to guide but to participate in the discussion to further the conversation for deeper thought as online teachers should be communicative and dedicated to their classes to increase social presence and teaching presence as students could sense that they belong in a learning environment rather than being alone.

5.4. Did the Online Learning Academy help and adequately prepare for online teaching?

Since all participants of the Online Learning Academy have high experience in online teaching, they indicated that the academy helped them modestly; however, they appreciated the opportunity to share their experiences and teaching strategies in online teaching with other teachers as well as adopt the strategies that other teachers presented and adapt them into their classes. The participants also wanted to learn more about in-depth functions of the learning management system such as manipulating grade book, integrating open-resources, embedding live-virtual classroom, utilizing e-text and virtual lab, and making online classes ADA compliant. These topics can be developed into professional development sessions or an Online Learning Academy for advanced online teachers.

The interviewed participants suggested the following topics should be included in the Online Learning Academy or similar professional development academy for new online teachers: using learning management system effectively; pedagogical foundation; instructional and information technology; online class interface and setting; multimedia in online teaching; online teaching netiquette; and quality assurance in an online environment. These topics would introduce and prepare new online teachers to be able to develop and deliver their online effectively.

Additionally, some participants suggested that new online instructors should consult with experienced online instructors periodically regarding any issues or problems that might occur.

5.5. What was the experiences of online teachers towards the Online Learning Academy?

The interviewed participants expressed positive experiences towards the academy, and they found the academy useful for them. However, they stated that they would prefer to be introduced to other tips, tools, or strategies for experienced online instructors. They believe the academy prepared them adequately to deliver their classes effectively, but they have high experience in online teaching so they would like to learn more about other advanced functions (stated above) of the learning management system or other teaching tools and strategies. They informed that they are knowledgeable in the logistics of online classes through their teaching experiences. Nevertheless, they indicated that they learned proper pedagogical approach and concepts from this academy which led them to revise and modify their instructional materials, strategies, methods, and learning outcomes as well as ensure the alignment of all instructional materials. For example, many instructors revised their class policies to be more flexible and accommodating, included multimedia as a medium of instruction, and embedded the synchronous component such as Zoom to enhance class interactions. They also learned how to better manage their online classes including other matters that they did not learn through their teaching experiences such as planning class logistics and utilizing new tools and functions in the learning platform.

5.6. Who are the target audiences of the Online Learning Academy?

The primary audience or target of this Online Learning Academy should be new online teaching instructors with very limited or no experience such as new faculty members or teaching assistants as indicated by the participants of this study. The interviewed participants stated that they would prefer to learn more about online teaching strategies as they stated that they are well informed about the online class setting, design, development, and logistics. They strongly think and recommend that the contents of this academy can surely benefit the inexperienced online instructors.

6. Conclusion, Discussion, and Limitations

The academy provided good starter information, but the participants of this survey and the participants of the Online Learning Academy during Summer 2020 were highly experienced online

instructors. The participants of this research provided details regarding the Online Learning Academy from expert online teacher perspectives, and they also recommended a variety of topics that were already included and should be included in the academy to better prepare inexperienced online instructors. They have years of experience in online teaching which allowed them to properly shape their skills, characteristics, teaching styles, and expectations in online class teaching.

Although they are highly experienced instructors, they stated that they still found some presented information useful to them especially the pedagogical foundation. These faculty members are experts in their field of practice and study but only a handful of them had proper training in pedagogical concepts. They encouraged and suggested the professional development committee to establish another Online Learning Academy for experienced online teachers to better suit their skills and needs. The existing Online Learning Academy is highly suitable for inexperienced online teachers. The results of this study have implications for (1) online teaching faculty members both new and experienced, (2) instructional designers, professional developers, and curriculum developers who assist the faculty member in their preparation to teach online, and (3) academic administrator who could provide support for online teaching faculty members.

The limitation of this research was the variety of the participants. Most, if not, all participants of this research have moderate to high experience in online teaching; therefore, the results of the academy were indicated as unnecessary for them to participate since they already have good concepts and grasp of online teaching. Another issue that arose during the data collection was personal information. The participants accidentally inform their personal and identifying information from time to time during the interview. This could be their names, classes, or departments. The information could potentially be used to identify the interviewed participants and violated the interview data collection protocol of Dakota State University.

The scope of future research could potentially explore a variety of participants such as participants who are new or have no online teaching experience to gain more insightful information regarding the online teaching preparation program. The safeguard of not including the personal identification data should also be implemented in future research. Since the interview questions inquired about information regarding the perception towards the Online Learning Academy so the personal identification data cannot be included in the answers at all. The inquiries regarding best practices in online teaching and fostering a positive online learning environment along with

sharing tips, tricks, and strategies should be included to gain more vibrant information as well as best practice that could potentially benefit the outcomes of online learning.

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