e-Learning Instruction: Identifying and Developing the Competencies of Online Instructors

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Abstract The rapid growth of online courses and programs in the last decade has been accompanied by a need for quality online instructors who can improve learning effectiveness and student satisfaction. Professional development is an important aspect of online education, as online instruction requires different pedagogical approaches and often requires faculty to transform many teaching practices. Despite calls for online teaching preparation and development, and certificates offered by professional organizations or individual institutions, no consistent approach to faculty development in online teaching from institution to institution has been established, although suggested best practices exist. Each e-learning context is unique, and a standardized training model might not be effective at all institutions and for all disciplines. In this chapter you will learn about the major roles and competencies needed to teach online as synthesized from the literature, and explore the debate on a technology focus versus pedagogy focus in terms of training decisions. Finally, you will learn about a specific faculty development model employed at a state college to encourage adoption of these roles and competencies in online instruction.

Keywords Professional development • Online instruction • Roles and competencies • Student satisfaction • Instructor satisfaction

Decision-Making Guidance

This chapter will help you make decisions about:

- Major online teaching roles and competencies that might be included in professional development for online instructors at your institution

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- Strategies to increase proficiency in these roles and competencies through professional development

What You Need to Know

Faculty development and training is an important aspect of e-learning initiatives. Teaching online has been shown to require somewhat different pedagogical approaches and faculty who teach online have needed to transform many teaching practices (Meyer & Murrell, 2014). A report on effective practices by the Online Learning Consortium (OLC, formerly SLOAN-C) discussed the need for faculty preparation for online teaching to improve learning effectiveness and satisfaction (Moore, 2009). Although faculty preparation for online teaching is often recommended, there is no consistent way of training faculty to teach online from institution to institution (Allen & Seaman, 2011). Yet the number of online courses and programs are growing, and so is the need for quality online instructors.

Since training programs for online teaching vary from institution to institution, individual organizations must determine how to prepare faculty to become exceptional online instructors, especially those who have little or no experience teaching online. Leaders at institutions wishing to develop a program to prepare faculty for online teaching must consider how the program will be delivered, but more importantly, what will be expected from the performance of online instructors. Understanding the major roles and competencies that are specific to online instruction is a first step to help pinpoint and define performance expectations of online instructors.

Need for Exposure to Online Pedagogy

An instructor's philosophical perspective and beliefs about learning often inform the choice of learning activity or lesson and more than one perspective is often applied to the learning environment. These perspectives are represented in different ways when designing online instruction or teaching online. Often, it is necessary to help instructors articulate and acknowledge these perspectives during faculty development for e-learning instructors, in order to help them make the transition to teaching online, or to improve their online teaching skills.

Behaviorism

Behaviorism is based on Skinner's operant conditioning theory that focuses on feedback and reinforcement to encourage learning. When a behavioristic approach is adopted, there is a direct map for learning and the assumption is that student

learning is predictable and measureable through observation of student performance (Winn, as cited in Duffy & Jonassen, 1992). In an e-learning environment an example of this perspective is when an instructor presents tangible learning goals, posts a lecture focused on these goals, and requires a multiple-choice test on the material to measure learning.

Cognitivism

Cognitivism is focused on the organization of information to gain new meanings, or a change in thought processes. Specifically, Gagné's Conditions of Learning theory, a cognitive-based theory, includes five types of learning levels: intellectual skills, verbal information, cognitive strategies, motor skills, and attitudes (Schuh & Barab, 2007). An e-learning lesson based on this theory might be presented in an organized module that includes an introduction to gain the attention of the learner, a question about the topic to activate prior learning, and a review of definitions and examples. The student is asked to perform tasks based on the information, receives feedback from the instructor, and is given an assessment to measure what was learned. Further remediation might be provided, if necessary.

Constructivism

According to the constructivist perspective, learning has multiple paths since the subject matter contains many meanings and concepts (Duffy & Jonassen, 1992). The constructivist perspective requires a different way of thinking about instruction because the responsibility for learning and meaning-making shifts to the students. This perspective is often more time-consuming and difficult to facilitate, but is used in the e-learning environment to encourage in-depth exploration of a topic. For example, an e-learning instructor might present a problem-based learning lesson in which students work in groups to create multiple solutions to a problem, scenario, or process. There may not be a right or wrong answer, but instead an exploration of the topic and interactions between peers to develop various solutions to the problem.

Based on the discipline and department or teaching culture, instructors might use one of the above approaches more than others both in their on-campus and online courses. Several instructors, albeit experts in their discipline or subject-matter, often do not have prior knowledge of the above perspectives and the different types of activities or assessments they can use in their teaching. They tend to teach the way they were taught, and few faculty members have prior experiences as online learners. Professional development for online instructors thus has to expose instructors to various ways of communicating subject-matter online, different online activities and their benefits for learning processes, and online assessment types. Additionally, professional development can help them acknowledge their own practices as well as

use these different approaches online. The delivery of such professional development online or the inclusion of an online component can provide instructors with experiences as online learners.

Major Teaching Roles and Competencies

The previous section explained the need for exposure to online pedagogy. It is important to acknowledge that instructors bring their own assumptions and perspectives to the classroom. In addition to exploring these perspectives in faculty development for e-learning instructors, there are some overarching roles and basic skills that benefit the instructor in the e-learning environment. These include pedagogical role, administrative/managerial role, technical role, evaluation role, active learning role, and instructional design role.

Pedagogical Role

In the seminal work Seven Principles of Undergraduate Education by Chickering and Gamson (1987), the overarching pedagogical role of an instructor includes communicating high expectations, encouraging student–faculty contact, and emphasizing time on tasks, all of which can be applied to the online learning environment. An online instructor additionally takes on a facilitator role that requires a certain set of competencies. These include: identifying student learning goals and outcomes, incorporating opportunities for student motivation and participation, incorporating team or group work, and sharing knowledge within the learning community. An instructor in this role also encourages construction of knowledge through effective learning activities and facilitates social interactions among students to foster and build relationships (Bawane & Spector, 2009; Berge, 1995; Goodyear, Salmon, Spector, Steeples, & Tickner, 2001).

Administrative/Managerial Role

In this role, the online instructor relays and enforces the rules and policies of the classroom (i.e., classroom "netiquette") and the institution (i.e., Federal Education Rights & Privacy Act, or FERPA). In order to do this, online instructors have to provide resources to students and create and adhere to rules and policies themselves. Included in the managerial role is the effective use of time management. Online students benefit from timely feedback through email correspondence, interaction with peers and the instructor in discussion boards, grades, and other student–instructor interactions. Further, an accessible online environment for all learners is

an important consideration. Accessibility in an online classroom environment includes things like closed captioning for course lecture videos, preparing documents to be accessible for screen readers, and applying universal design for learning (UDL) when creating course materials. Many institutions have specific policies and guidelines for students with special needs; these need to be shared with online instructors.

Technical Role

Online instructors have to be technically proficient order to assume a pedagogical and administrative role in the online environment. It is inevitable that technical difficulties will occur and competencies such as flexibility and level-headedness are important in the online learning environment. If a student has problems using materials or technologies during the course, e.g., a faulty microphone or web camera during a synchronous session, the online instructor may need to help the student, or know whom to contact for technical support.

Evaluation Role

In general, the evaluator/proctor role includes assessment of student learning and enforcement of policies dealing with grades and ethical considerations (such as plagiarism). In this role an online instructor assesses learning outcomes, monitors originality of student work, and manages grades. An instructor may need to use assessment tools and techniques that are unique to the online environment (e.g., online proctored testing and plagiarism detection tools) when necessary. As mentioned in the pedagogical role, online instructors can evaluate students by providing consistent and frequent feedback to students (i.e., grades and comments on student work) since this is the most frequent type of student-to-instructor interaction that will likely occur.

Active Learning Facilitator Role

Active learning in an online environment includes activities like group and teamwork, student-to-student interactions, and project-based learning. An online instructor acts as the facilitator of active learning by managing cooperative groups, managing student interactions, and encouraging meaningful and interactive discussions. These behaviors relate closely to one of the Chickering and Gamson's (1987) Principles of active learning, which involves the students in their learning such as being engaged in conversations, writing about the learning material, and relating the learning material to their own lives.

Instructional Design Role

Online instructors at many institutions have the benefit of working directly with an instructional designer to design and develop an online course. Through this collaboration, they are able to gain many instructional design skills. Instructional design skills include knowledge and application of educational theory and educational technology. However, many institutions do not have the instructional design support for all unique course developments. In either scenario, an online instructor benefits from exploring educational theory (e.g., behaviorism, cognitivism, and constructivism as explained in the previous section) that influence e-learning instruction. Additionally, online instructors need support with graphic design and Internet and web skills, and if such support is not available, they need to acquire these skills. Collaboration and teamwork skills are also necessary in this role since online course development and delivery often involves a team of individuals such as instructional designers and multimedia experts.

Instructional Design, Technology, and Pedagogy

A fundamental decision to be made when designing professional development for faculty who will or are teaching online is to what extent they will need instructional design, technical and pedagogical skills to be able to develop, teach, and manage their courses. Some institutions invest in teams of instructional designers, multimedia experts, and programmers who support course development while others might not have a beginning budget that allows them to do so. The amount of instructional design knowledge needed by instructors embarking on online teaching depends on the level of instructional design support available at their institution. Thus, in designing faculty development for teaching online, a basic consideration is to what extent instructors will have to design their own courses. In this chapter we share an example of a professional development program for online instructors where instructional design support is provided at the institution, as this is increasingly the case in recent years with the growth of online education.

Often, a second consideration when designing professional development is whether online instructors participating in such a program will teach courses that they develop, revise, and maintain or teach online courses that have been developed by others. We assert that in either case, the roles defined above are important to online teaching, and online instructors have to be skilled in both technology and pedagogy, regardless of the amount of instructional design support they may receive. Discussions when identifying instructors competent to teach online often revolve around the importance of technology or pedagogy when teaching online, with some suggesting that a technology-savvy instructor with little teaching experience is a better online instructor and others arguing that a seasoned instructor with greater knowledge of learning theory and pedagogy is better suited for online instruction.

We maintain that knowledge and skills in both pedagogy and technology are needed to succeed in the online teaching environment.

Without a solid foundation in both pedagogy and technology, the instructor may struggle to navigate the online learning environment. For example, an instructor who is up to date on the latest technology tools but who has little experience facilitating online interactions and evaluating student work may struggle when interacting with students and providing constructive feedback. Likewise, an experienced instructor in the face-to-face classroom who is not technically competent and transitions to the online environment may feel overwhelmed by the myriad of tools and options and limit themselves in the ways in which they interact or which tools they choose to use, thereby potentially hindering learning and limiting students' access to each other and valuable resources.

The main consideration for e-learning leaders is how faculty development can be structured for all types of instructors, e.g., those who are technically-savvy but lacking in pedagogical knowledge, those with extensive teaching experience but low technical skills, those who are new to the academy or to teaching online, and those who have earlier experimented with other technologies or teaching online. The experienced instructor will benefit from learning practical technology tips and exploring the differences between a face-to-face classroom and an online classroom. The technology-savvy instructor may find pedagogical approaches such as evaluation methods and communication strategies useful. A brand-new instructor will benefit from both pedagogical and technological training as well as an introduction to institutional support and resources. In any of these scenarios, providing faculty with opportunities to learn in an environment similar to the one in which they will teach has been found to be valuable. e-Learning leaders aiming to offer faculty development to online instructors should ensure that the program or course offered simulates the technical and pedagogical environment in which they will teach and emulates online teaching practices expected of those online instructors. In the next section we describe how one institution approached faculty development for online instructors to model expectations of online teaching at that institution and to include all types of faculty.

What You Can Do

Implementing Professional Development in Online Instruction

In this section, we provide an example of professional development for online faculty based on a program that was offered at a state college for online instructors. We describe the learning outcomes and activities included in the program. We then discuss the design considerations that e-learning leaders can adapt and use for specific institutional needs. At the end of this section we briefly discuss the benefits and

challenges of the presented approach and factors that e-learning leaders should consider when implementing such an approach.

Example of an e-Learning Faculty Development Model

The roles and competencies covered earlier in this chapter were evaluated and used as a guide to create learning objectives, activities, and assessments for an 8-week faculty development program in online teaching. The target audience included both full-time and adjunct faculty who were already teaching or planning to teach online in the future. The faculty represented varying ages, backgrounds, and disciplines, and included those new to the academy and those some nearing retirement. Previously, there had been a lot of emphasis on training instructors in the technical knowledge needed to teach online (e.g., use of the learning management system and other technologies used in online learning environments), but training with a focus on online teaching practices had not been offered at the college. This program focused on the pedagogical and active learning roles of an online instructor with an emphasis on developing skills to create social presence among students, increase communication with students, and provide meaningful feedback to students. It was hosted in the institutional LMS, and offered as a combination of online modules and online synchronous sessions, with flexibility for the instructors to meet instructional designers on-campus or online, in order to accommodate the needs of both adjunct and full-time faculty members. Briefly, the program had the following learning goals:

1. Identify and describe individual online teaching philosophy
2. Reflect upon current teaching practices
3. Identify and describe several theories and practices of online teaching and learning
4. Discuss and debate various topics related to current research on online teaching and learning
5. Participate in and facilitate synchronous, online sessions
6. Apply research-based principles to online courses by creating and implementing a new technique or strategy in an online class
7. Develop a community of practice with other online instructors
8. Collaborate and share tools and ideas with other online instructors
9. Enhance an online course with meaningful use of available technology tools
10. Develop strategies to increase communication and feedback into online courses

Learning Activities

Each learning outcome was paired with specific learning activities, assessments, instructional materials and tools in order to model best practices. For example, the course included exploring the roles and competencies of online instructors (see Table 1, Week 3: What do online teachers do?). The instructors were asked to read

Table 1 Topics, subtopics, tools, and modeled strategies of each module in the program

Module topic and subtopics	Tools and modeled strategies
Week 1, Modules 1–2: Introduction/ Canvas LMS 101 • Community building—intro discussion • Course mechanics • Introduction to course and facilitators	Discussion board (video) introduction with Active Learning (AL) technique Quiz
Week 2, Module 3: Underlying principles of online teaching and learning • Introduction to theories of online teaching and learning • Moore's three types of interaction: student–student, student–instructor, student–content • Community of inquiry • Seven principles of undergraduate education	Lesson Discussion board—online teaching philosophy Reading in text Reflection assignment
Week 3, Module 4: What do online teachers do? • What are the researched roles and competencies of online instructors? • Implementing the seven principles online • Hot topic—is online learning as good as face-to-face?	Lesson Discussion—hot topic Group Project: Group discussion and each group will research a role and/or competency and present to class via synchronous conference
Week 4, Module 5: Strategies for facilitation and communication • Instructor presence, communication, feedback • Discussion—case scenario	Lesson Discussion Web tools to encourage type of teaching method Provide feedback in various ways throughout course Case scenario to model problem-based learning
Week 5, Module 6: Online active teaching and learning strategies • Cooperative and collaborative • Problem based/project based • Discovery and adventure learning • Discussion—how would you do it?	Groups Collaborations Begin final project Project based on active teaching methods and utilizing tools to encourage the method—models PBL (project)

(continued)

Table 1 (continued)

Module topic and subtopics	Tools and modeled strategies
Week 6, Module 7: Strategies to build social presence • Review of main points • First days • Cooperative learning • Groups • Collaborations • Reflections	Lesson Assignment and projects Discussion Group activity Synchronous/asynchronous meeting tools
Module 8, Putting it to practice: applying the strategies—Final project • Final project applying a technique in course or incorporating a technique into future course	Synchronous meeting tool Student-led project

about this topic through the provided resources and lecture pages in the module. They were given a "hot topic" discussion prompt debating the efficacy of online learning versus face-to-face learning. Finally, they were assigned a group project in which they worked collaboratively to research a role and/or competency that they later presented to the other learners during a synchronous meeting.

Design Considerations

As mentioned, each institution has its own culture and context that must be considered before taking on an initiative like faculty development for e-learning. Some things to consider when embarking upon such an initiative include what the purpose and goal of a program will be and what skills and knowledge the faculty will gain from a program. In order to figure out the purpose and goal of the program, it is wise to obtain feedback from all stakeholders in the program, including department chairs and other relevant administration, through conversations about what is most important to include in the professional development. A needs assessment can be sent to the faculty body to determine what the faculty already know, want to know, and don't yet know. The roles and competencies described in this chapter is a starting point for this type of needs assessment. Conversations with stakeholders and a needs assessment will provide a solid foundation for the design of a program like the one described in this chapter.

Benefits and Challenges

The faculty development model described in this chapter benefited the college and faculty in many ways. First, the program laid a foundation for future faculty development initiatives at the college. The program established a precedent for faculty

development devoted to e-learning instruction focusing on the best practices of using technology and pedagogy. Many of the participants promoted the program within their departments and to other colleagues across the campus.

Further, instructors who went through the program were able to explore the LMS and other e-learning tools from a student's perspective. Several instructors in the program discussed how it was the first time they were exposed to the use of the technological tools and learning activities from the student perspective. Specifically, the instructors were given an opportunity to interact with peer learners through the debate and group project. The facilitators of the professional development program demonstrated how to manage a group project that explored the subject matter. Finally, the faculty were able to use the synchronous meeting tool firsthand as well as a demonstration on how to host a synchronous session. See Table 1 for more details on each module of the program.

The voluntary nature of faculty development at the college presented another challenge. Instructors are not required but encouraged to take faculty development before teaching online. Thus, those that went through the first iterations of the program were intrinsically motivated to participate. The longer-term program presented another challenge. The time investment was significant for the participants since it was offered as a course one might take as a student. Those who aren't intrinsically motivated to participate in voluntary faculty development may not see the benefit of a long-term program. The question becomes, how do we encourage more faculty to participate in faculty development, especially longer-term programs, without being required to do so? One consideration might be to include veteran e-learning instructors in the design and development and/or facilitation of the program. Faculty who are skeptical or uncertain about the faculty development may feel more comfortable exploring these topics with a veteran e-learning instructor.

Some colleges and universities provide program-specific training and support whereas other institutions work from a central office to provide these services. This is something to consider when deciding what kind of faculty development initiative will be explored at an institution. Nonetheless, the roles and competencies that we suggest in this chapter are relevant to all online instructors. Further, faculty interest and support for professional development is important to acknowledge. An ideal place to start implementation of an initiative is with a group of faculty who already are interested and motivated to participate in these efforts. These initial participants can become the champions of an initiative that is supportive of e-learning instruction.

In addition to a formal professional development course of this nature, e-learning leaders might consider brown bag sharing sessions where faculty share their initial experiences with teaching online, e.g., something that has worked very well for them. This was received very positively by faculty at a large private institution, with faculty sharing resources, practices, templates for activities, and proposing new topics (e.g., writing good online discussion questions) by the end of the academic year. The creation of an online portal where faculty share questions, resources, and concerns in a closed environment can also be helpful, for instance, within a small department. Institutional investment is taken for granted for formal courses and modules, but is also essential for informal professional development of this nature.

Conclusion

Each institution approaches the support of e-learning instruction differently. Some institutions require faculty development for those who teach online while others leave development decisions up to the instructors. Some institutions are decentralized and individual colleges within the institution make decisions about how instructors are trained and how online courses are taught. Other institutions implement broad initiatives for online course development and training. Some institutions provide instructional design support at the individual course level and provide one-on-one support to faculty members as they embark upon online course development and teaching. The authors of this chapter have witnessed all types of institutions as described. We understand that each institution has a unique context and culture that must be considered before implementing faculty development. However, we assert that regardless of the unique characteristics of each institution, the major roles and competencies of online instructors must be explored in order to support e-learning instructors.

In this chapter we discussed several key considerations for identifying and developing these competencies for online instructors. We established the major philosophical perspectives that inform instruction and examples of these in e-learning environments. We then explored the major roles and competencies needed to teach online and what this looks like for online instructors. We presented the debate regarding technology and pedagogy and posit that instructors with strength in one or the other benefit from a faculty development program that allows e-learning instructors to personalize their own learning path. Finally, we presented an example of a faculty development program offered at a state college that explores the roles and competencies while encouraging faculty to apply and adopt these roles and competencies. We discussed the benefits and challenges of the program, both institutionally and for the instructors participating in the program.

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