

DRAFT

Professional Development for Online Language Educators

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Author Note

The contents of this chapter were developed under a grant from the U. S. Department of Education (CFDA 84.229, P229A140014). However, the contents do not necessarily represent the policy of the Department of Education, and one should not assume endorsement by the Federal Government.

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Abstract

The proliferation of online language courses has posed both new opportunities and challenges for language centers in their mission to support instructors teaching such courses. In this chapter, we argue that language centers (LC) are strategically positioned not only to address the unique needs of online language educators but also to serve as models in institutions of higher education for the design and implementation of highly situated professional development (PD) experiences rooted in the theories and best practices in adult learning, professional development in computer-assisted language learning (CALL), and instructional technology. This chapter presents two case studies that describe the process of creating professional development series for online language instructors using the principles of andragogy and the Technological Pedagogical Content Knowledge (TPACK) model. The first case study addresses the creation of a PD initiative designed and implemented by the Center for Language & Technology to prepare instructors who plan to teach online courses in the College of Languages, Linguistics & Literature at the University of Hawai‘i at Mānoa. The second case study provides an overview of an online PD series developed by the National Foreign Language Resource Center (NFLRC) to address specific needs of online K-12 language instructors nationwide. Both cases illustrate how language centers can leverage the existing interdisciplinary knowledge base when designing PD interventions, while simultaneously making their work relevant to other fields in the institutions where they operate.

Keywords: professional development, online language education, language centers

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Introduction

The exponential growth in online learning in the last two decades has brought with it both a wealth of possibilities for educational improvement (e.g., pedagogical renewal, increased access, etc.) and a number of challenges. A recent survey by the Babson Group reveals that the proportion of academic leaders who think that online education is critical to the long-term strategy of their institution increased from 48.8% in 2002 to 70.8% in 2014 (Allen & Seaman, 2015, p. 48). With world language programs struggling to survive due to budget cuts, institutions have turned to online instruction for various reasons (e.g., to increase enrollments, reduce expenses, better meet students' needs, expand educational offerings, etc.). As a result, a growing portion of world language educators now find themselves teaching online, often as contract labor, sometimes with little or no physical contact to the institution they serve, and with a minimum of appropriate professional development. Although professional development (PD) opportunities for online learning are now often available in many institutions, contextualized professional development that meets specific disciplinary needs is still uncommon. This situation offers both a challenge and an opportunity for LCs to position themselves as a unique resource to meet the needs of language educators while simultaneously presenting themselves as a model for the implementation of deeply contextualized PD that may be replicable in other disciplines.

LCs are perfectly equipped to respond to this challenge since they have often played a role in projects intended to spearhead innovation and pedagogical renewal. Pedagogical practices that have been part of language instruction for decades now are being discovered by other disciplines. For example, blended learning and flipped classroom models are reminiscent of

long-established practices in foreign language education, oftentimes supported by the unique pedagogical and technical acumen that is typically housed in LCs. Within the broad institutional context, LCs then are well positioned to be showcased as models of best practices in the operationalization of discipline-specific professional development.

This chapter presents two case studies that exemplify professional development grounded in domain knowledge and relevant pedagogical practices. The ADDIE (Analysis, Design, Development, Implementation, and Evaluation) instructional design model guided the process of design and implementation of the PD experiences described in this chapter and also serves as the organizing principle to discuss each case. Appendix A presents a table with the key activities performed for each phase of the model in relation to each case study.

Implementing Best Practices

The need for context-sensitive professional development is supported by theories of adult learning (andragogy) as well as by knowledge constructs for discipline-specific technology integration, such as the Technological-Pedagogical-Content Knowledge (TPACK) model. In the projects described here, andragogy (Knowles, 1973, 1984) constitutes the underlying pedagogy in the design of the PD experience, while fostering the development of TPACK is the overarching goal pursued in all PD experiences we design and offer.

Knowles (1973) proposed that adult learning, which he describes as andragogy, is based on particular assumptions in four key areas: self concept, experience, readiness to learn, and orientation to learning. With regard to self-concept, andragogy assumes that as individuals mature, their learning preferences change in favor of self-direction. In connection with experience, andragogy assumes that adult learners bring to the instructional context a wealth of knowledge and beliefs as a basis upon which they will incorporate the new knowledge and

experience. Readiness to learn refers to the assumption that adult learners will be predisposed to better learn what they perceive as a real need rather than an imposed obligation. Finally, adults' orientation to learning refers to the notion that adult learning is driven by the need to solve problems in the present or near future. Although the assumptions in these four areas have not been explored in depth in language teacher professional development and technology, andragogy has been used as a framework in computer assisted language learning (CALL) in the exploration of interface design for language software (Plass, 1998) and self-directed learning (Jung, 2014; Lai, 2013). Appendix B presents a synopsis of the main assumptions in andragogy and how those assumptions informed the design and development of the PD described in both case studies.

In the cases described in this chapter, the TPACK model was used as reference to define goals and content. TPACK provides an integrated skills framework sensitive to the context and content of instruction. As such, the construct supports the idea that effective professional experiences need to be grounded in specific disciplinary contexts. The construct (formerly TPCK) is based on Shulman's proposed concept that effective teachers develop a blended form of knowledge that combines knowledge of the content (discipline), and knowledge of the best way that content can be taught and learned (pedagogy) (Shulman, 1986, 1987). Mishra and Koehler (2006) expanded this idea to include technology as one of its components (see Figure 1). As Mishra and Koehler (2006) assert, the TPACK framework provides a new way to think about technology integration that "emphasizes the connections, interactions, affordances, and constraints between and among content, pedagogy, and technology" (p. 1025). In other words, for instructors to be able to integrate technology in ways that positively impact learning, they need to develop this integrative type of knowledge. This assumption forms the basis of the

argument that language centers have unique experience and expertise in combining these three knowledge areas in institutions of higher education.

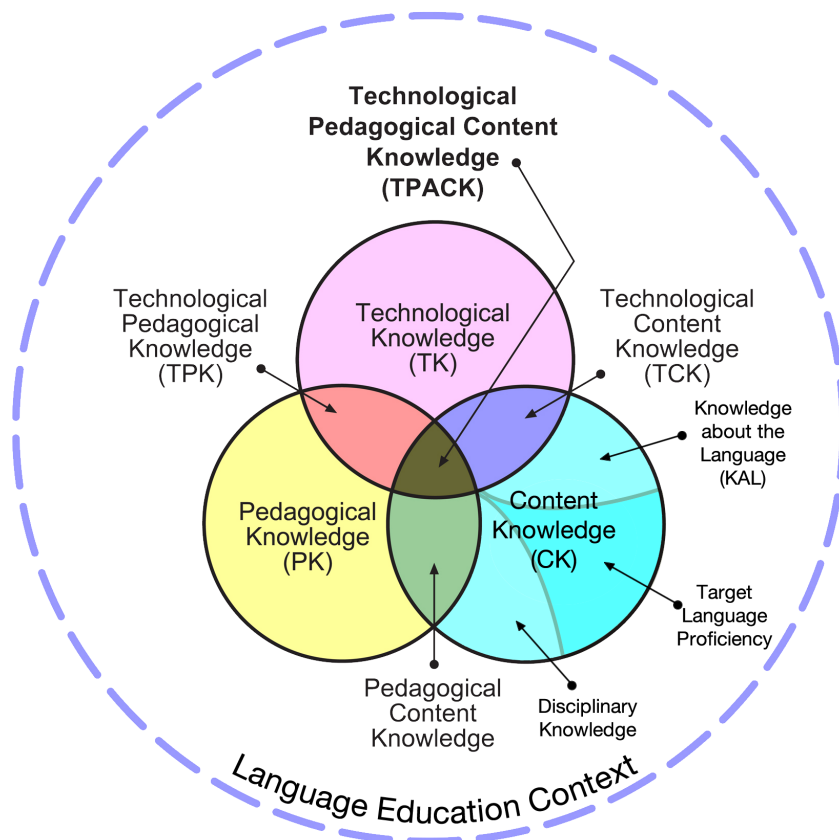


Figure 1. The Technological Pedagogical Content Knowledge construct in the context of language education (adapted from the original image at <http://tpack.org>).

As Koehler and Mishra (2006) have noted, the content knowledge (CK) component of the TPACK construct constitutes an ill-structured domain at best in all disciplines and is usually the subject of much discussion. Not surprisingly, what makes up the knowledge base of language teachers has been, and still is, widely discussed (e.g., see Arnold, 2013, Egbert, Paulus, & Nakamuchi, 2002; Freeman & Johnson, 1998; Levy, 1997; Nunan, 1991; Seidlhofer, 1999; Wilhelm, 1997). Despite differences in opinions, it would seem that in the field of world languages there might be consensus that what constitutes content in language education results

from the combination of three broad knowledge areas, namely (a) proficiency in the target language (TL), (b) explicit knowledge of the linguistic structure of the TL, which has been described as knowledge about the language (KAL) (James, 1999), and (c) disciplinary knowledge. This last type of knowledge is associated with the domain of language use. It is not uncommon in foreign language programs for disciplinary knowledge to focus on a specific language domain area, such as literature.

Beyond epistemological nuances, the TPACK construct is very useful because it acknowledges that professional development experiences for language teachers whose goal is to better facilitate or improve language acquisition processes through the use of technology need to be guided by approaches that integrate both pedagogy and content. It can be argued that when professional development experiences are driven by such an approach, they are more likely to yield positive results because they also meet one of the tenets of adult learning theory, namely that adults are interested in learning content that has relevance and is immediately applicable to their job or personal life.

The Context

The projects described in this chapter were implemented by the Center for Language & Technology (CLT) and the National Foreign Language Resource Center (NFLRC), respectively, both at the University of Hawai'i at Mānoa. The CLT was founded in 1956 and provides essential services and resources to faculty in the College of Languages, Linguistics & Literature. The CLT mission is to support the informed use and integration of technology into instruction and research in the academic areas of the College. In order to fulfill its mission, CLT faculty engage in the design, development, and implementation of professional development. In the last

five years, special attention has been devoted to improving the quality of online teaching and learning in the College. The first case study describes an effort in this area.

The National Foreign Language Resource Center (NFLRC) was founded in 1990 through a Title VI grant from the U.S. Department of Education. The NFLRC mission is to expand the nation's capacity to teach and learn foreign languages through research, materials, and professional development projects. The primary audience for NFLRC projects are instructors in critical languages and applied linguists involved in these languages. The second case study describes an NFLRC project intended to expand professional development opportunities for online K-12 foreign language instructors.

Case Study 1: Orientation to Online Learning

The Orientation to Online Learning is a professional development series designed and developed by the Center for Language & Technology (CLT) at the University of Hawai'i at Mānoa (UHM). The main purpose of this series is to introduce participants to the basic principles and concepts of online teaching and learning, familiarize them with theoretical and practical aspects of designing an online course, and equip them with tools and resources for developing such a course. The target audience for the series comprises faculty and graduate students from the College of Languages, Linguistics & Literature (LLL) at UHM who either intend to teach an online course in the near future or are interested in enhancing their own professional growth and development by acquiring basic knowledge and skills in the area of online learning and teaching.

Starting from its launch in Fall 2013, the Orientation to Online Learning has been offered to the LLL community every semester. Taught by the CLT faculty, the series consists of six 2-hour sessions meeting every other week throughout the semester. The content is organized into three main themes: content development, interaction, and technology. Sessions give participants

the opportunity to engage in hands-on practice and one-on-one consultation. Starting in Spring 2014, LLL instructors are required to do one of the following: (a) obtain a badge attesting successful completion of the Orientation to Online Learning or (b) produce a fully-developed online course meeting an established set of standards prior to the date when the course is listed in the catalog.

The creation of the series was based on the ADDIE model of instructional design. The rest of this section is organized around each element of the model and explains how it was effectuated in the case of the series. The analysis stage of this project commenced in Fall 2012 and involved identification and analysis of needs with respect to online instruction in the College of LLL. In line with the andragogy principle recommending that adult learners participate in the planning of their instruction (Knowles, 1984), the CLT developed and distributed a college-wide survey to elicit information about faculty technology needs, learning preferences, and perspectives on how the CLT could best provide professional development opportunities and support services. The results of this needs analysis survey revealed that the majority of respondents preferred participating in face-to-face technology workshops organized by the CLT.

An advisory board comprising faculty members from each department within the College of LLL provided additional input at this stage. One of the issues identified by the advisory board was the need for more specific college policies and procedures to ensure that instructors who wished to develop and offer new online courses had access to the requisite knowledge to succeed in this endeavor. The advisory board recommended an extended professional development series that would introduce college instructors to basic principles of online learning and teaching. In support of the advisory board recommendations, the College of LLL adopted a policy that requires instructors who are planning to teach an online course for the first time or who have not

taught online in the past two years to either (a) submit to the CLT a fully developed online course for review or (b) successfully complete the professional development series.

A registrant survey also provided useful information at the analysis stage. While the primary purpose of this survey was for participants to register for the professional development series, the survey was also used as a mechanism for gathering background information to help workshop organizers better understand participant needs. Specifically, the survey elicited data about the participants' previous experience and expertise with various aspects of online learning and teaching, including familiarity with technologies and practices in the online mode. The survey data were subsequently used to adapt the content of the series to better address participant needs whenever applicable.

The second stage of the ADDIE model focuses on the design of the learning experience. As mentioned, the overarching goal of the professional development experiences described here is to further develop the participants' TPACK. Following the TPACK model (Mishra & Koehler, 2006) and using findings from the needs analysis and literature review, the series emphasized the integration of content, pedagogy, and technology. A modular structure realized as a sequence of sessions was used in the design. The first three sessions focus on content while the other two sessions focus on interaction. Technology is directly or indirectly addressed throughout the course of the series. The design of the series follows an iterative process that is rooted in design principles (Jonassen, 2008). Every time the series is taught, new issues are identified and addressed before the next iteration.

Considering that the target audience for the series comprised instructors and graduate students in the College of LLL who were physically present on campus, and that faculty respondents to the survey had expressed a preference for face-to-face PD, the Orientation to

Online Learning was planned as a facilitated face-to-face PD event with a structured curriculum and obligatory registration. The curriculum contained two main components: (a) a theoretical component that covered motivations and principles underlying the creation of high-quality online courses and (b) a practical component that provided participants with various resources and tasks to acquire a modicum of hands-on experience. The practical component was integrated in the design to enable participants to apply and reflect on new knowledge acquired in the series, thus enacting the andragogy principle emphasizing the primacy of experience (including mistakes) as a basis for learning activities (Knowles, 1984); accordingly, one of the core aspects of the practical component was an Online Course Outline template which was iteratively designed to help participants develop detailed blueprints of their prospective online courses. The main purpose of the template was to make participants' learning in the series more problem-centered rather than content-oriented (Knowles, 1984), in line with yet another of the andragogy principles.

The theoretical component comprised a curated selection of topics. Because adults are most interested in learning the content that is relevant to them and has real-world benefits and applications (Knowles, 1984), the topics chosen for the Orientation to Online Learning covered areas that had immediate relevance for participants as they were planning to teach online. Specifically, the selected topics addressed the use of quality guidelines for online courses, the building of personal learning networks, the creation of multimedia content (with a focus on images, audio, and video), and the integration of interaction in online courses.

Both theoretical and practical components in the PD series were combined in a series of tasks that resulted in tangible products created by the participants. Those products served as digital records of participants' learning and as evidence supporting participants' eligibility to

receive a series of open badges granted by the CLT². The CLT badge implementation for the Orientation to Online Learning series consists of three core badges, one for each of the modules (i.e., Content Development, Interaction, and Technology badges). A master badge for the Orientation to Online Learning is automatically granted to participants who obtain the three core badges. That master badge fulfills one of the alternative College requirements for teaching online. Designed to match targeted competencies, badge certification was based on a set of criteria that participants had to meet by completing a series of specific tasks in each module. By earning badges, participants met the College policy vis-à-vis certification of instructors intending to teach online courses. Integration of badges into the design of the Orientation to Online Learning also contributed to the sustainability of this PD series by creating an evidence-based credential with lasting value based on a concrete set of tasks demonstrating skill mastery.

During the development stage, the CLT created the core content for the series and designed corresponding badges. The core content is hosted in a resource page named Online Learning Design Studio³ and is thematically divided into three main components: content development, interaction, and technology. This resource is in turn embedded in a central website⁴ that provides the structure for the whole series and includes sections such as a welcome page, a schedule page, a sessions menu, and a badge criteria page. Under the Sessions menu participants can find the actual activity plan for each session, including homework, in-class activities, and links to external websites. The Badge Criteria page explains the criteria for badges and links to specific tasks that participants are expected to complete in order to get badge certification. This

² For more information on badges, please visit <https://wiki.mozilla.org/Badges/>; for more information on CLT badges, please visit <http://clt.manoa.hawaii.edu/projects/clt-badges/badges/>

³ <http://clt.manoa.hawaii.edu/projects/online-learning-design-studio/>

⁴ <http://clt.manoa.hawaii.edu/projects/faculty-orientation>

page is associated with the badge that each participant receives, thus providing a detailed digital record with task instructions and expected outcomes.

The central website of the Orientation to Online Learning is supplemented by a space created in the institutional learning management system (Laulima), a localized version of Sakai, an open-source LMS supported by the University of Hawai'i System. The space in Laulima links to the central website and provides asynchronous interaction tools used by the series facilitators to communicate with participants and engage them in online discussions. The Laulima space is also used to introduce participants to the various tools that the LMS offers to enhance teaching and learning in an online course. By integrating various web-based tools and platforms in this PD series, the CLT intended to model to the participants one way to integrate various institutional technologies and to leverage their potential for online courses.

Before the beginning of each semester, the CLT sends out an email to all faculty and graduate students in the College of LLL to advertise the Orientation to Online Learning and invite prospective participants to register for the coming semester. Starting from Fall 2013, the Orientation to Online Learning has been offered every fall and spring, with summer sessions added in 2015. As of August 2016, the series has gone through eight iterations, with a total of 91 participants and 47 badge recipients.

During fall and spring semesters, the series comprises six 90-minute face-to-face sessions that meet every other week. Taught by two or three CLT faculty, each session follows the pre-determined curriculum and consists of (a) a facilitator-led presentation and discussion of key concepts related to online teaching and learning and (b) hands-on tasks that participants are asked to complete in order to apply what they have learned earlier in the session. Having at least two CLT faculty present during each session allows for more personal attention and guidance

during the hands-on tasks and improves the staff's ability to respond to participants' questions and concerns. Given the heterogeneity of each cohort, comprising participants with diverse needs, various academic backgrounds, and different levels of tech-savviness and previous experience in online education, the combined expertise of the CLT faculty has proven particularly valuable in this context.

In addition to offering face-to-face sessions, the CLT faculty provides participants opportunities to receive additional help via email or through individual meetings and consultations. Those participants who, for instance, have had to miss a session are given alternative options to catch up on the content by making an appointment for a one-on-one meeting with CLT faculty. All the tasks completed by participants are evaluated by CLT faculty as a basis for the awarding of badges.

Evaluation is an integral element in the process of creating the Orientation to Online Learning. As part of the iterative design process, evaluation is incorporated in different stages of the project and is used as a basis for revisions. At the end of the first iteration of the Orientation to Online Learning, the CLT conducted an hour-long focus group study with the first cohort of participants to elicit their feedback and suggestions for improvement that were subsequently implemented during the revision process. Starting from the second iteration, summative evaluation was based on feedback furnished by participants via an anonymous online survey at the end of the series. The purpose of the survey is to provide participants with a mechanism for evaluating the effectiveness of various components of the series and sharing their recommendations for improvements and changes. Survey results coupled with the CLT faculty's observations during face-to-face sessions continue to serve as a basis for iterative redesign efforts implemented after each offering.

Case Study 2: Online Language Pedagogy

To meet the needs of a growing number of language instructors who teach online, the Hawai'i National Foreign Language Resource Center (NFLRC) teamed with North Carolina Virtual Public Schools (NCVPS) to develop a series of professional development modules on online language pedagogy (OLP). This case study provides an overview of the analysis, design, development, implementation, and evaluation of these modules and informs readers about opportunities to take advantage of the modules by using them in various professional development contexts, since the module and corresponding digital badge structure are offered as an open educational resource (OER) to any interested institution.

An informal survey of available online resources for professional development targeted exclusively to K-12 online language teachers was conducted by the NFLRC in Fall 2013. Although there is abundant information to prepare online language teachers in the basics of online teaching and learning, no open, discipline-specific professional development resources were found in the area of online language learning. In an effort to provide online language teachers with professional development that addresses their unique needs, a national survey was widely distributed to several virtual public schools throughout the nation. The survey helped identify topics for professional development that in-service online language teachers perceived as a current need.

The main survey item included a list of potential topics of interest to online language teachers, as well as an open-ended item that invited respondents to provide any additional suggestions. Results from 86 respondents teaching nine languages in 17 states, mostly NC (n=49) and GA (n=13), yielded valuable information on the needs of K-12 online language educators. The three topics that were of greatest interest to survey respondents were (a)

designing interaction for online language learning, (b) developing materials for online language learning, and (c) assessment in online language learning. Based on these survey results, the NFLRC developed a scheme to address these three topics in three professional development modules, with one module per year (2015-2017). In this case study, we will focus on the first module, *Designing Interaction for Online Language Learning*⁵, which was offered in Fall 2015.

Designed for in-service teachers of world languages in online environments, the *Designing Interaction for Online Language Learning* module focused on the various kinds of interaction that take place in online language courses. While interaction is important in any online course, it deserves special attention in language courses, since increasing the learners' communicative competence is key to developing proficiency in a language (Canale & Swain, 1980).

Successful completion of this module and its associated tasks qualified participant language instructors to earn a badge conferred by the National Foreign Language Resource Center (University of Hawai'i). Badge earners from North Carolina Virtual Public School were also eligible to earn a Continuing Education Unit (CEU) towards maintaining their professional qualifications. In order to receive the badge and CEU, the participants needed to attend the webinars, participate in the online discussion, and submit a 3-2-1 reflection report (three things you learned, two things you wish to implement in your own classes, and one question you still have) covering each webinar session.

The structure of the module was adapted from Moore and Kearsley's (1996) model for interaction, which includes learner-content interaction, learner-instructor interaction, and learner-learner interaction. A further type of interaction was added, namely learner-community of

⁵ <http://nflrc.hawaii.edu/events/view/82/>

practice interaction, in view of the importance of this type of interaction in language education. Interaction with communities of native speakers of the language are an essential part in the process of second language acquisition.

The module was designed as a series of five 2-hour online webinars addressing interaction from the four perspectives mentioned above. The final webinar focused on review and reflection. In order to help participants develop their TPACK, each webinar was divided into three 30-minute lessons addressing theory, best practices, and technology respectively. The content of each lesson was developed and presented by invited guest speakers and NFLRC staff with expertise in these topics. During the webinar, each presenter, working from their home location, shared slides and other media through the webinar platform while lecturing on their specific topic. Presenter introductions, housekeeping, and questions and answers during and following each presentation were handled by the peer facilitator, an experienced online language teacher engaged by the NFLRC to serve as an effective mediator between the content providers (presenters) and participants. Each session was video-recorded using built-in functionality in the webinar platform, and this footage was then published to YouTube. These recorded sessions were then embedded in a lesson structure on the TED-Ed platform and published as a open educational resource (OER), enabling subsequent free use by individual educators doing professional development on their own or by organized cohorts led by their own facilitators.

The Designing Interaction for Online Language Learning module served as a pilot for the planned full series of three modules mentioned above. Registration information for the webinar series was sent out via email to the teachers who had participated in the original nationwide survey, as well as to several related professional interest groups, institutions, and organizations.

Ultimately, most registrants in the series were online language teachers at NCVPS, as was the facilitator.

Both synchronous and asynchronous technologies were used to support participants' fulfillment of the requirements in this series. As mentioned earlier, in order to receive the badge the CEU, participants had to attend the five Blackboard Collaborate webinars (synchronous), participate in 15 discussion forum threads embedded in the individual TED-Ed lessons (asynchronous), and submit their final 3-2-1 reflection report for each of the webinar sessions (asynchronous). Participants could find complete information about the series, including webinar schedule, guest speakers, badge tasks, technical FAQ, and additional resources in the series website (<https://goo.gl/EhUNZf>). The series website, webinar footage (recorded and embedded in TED-Ed lessons) and TED-Ed lessons were archived and have remained available as OER. After completing the module and fulfilling outline requirements, six participants out of the twenty-two originally registered received the badge and CEU.

As a method of evaluation, participants were given a short survey after each webinar and a more in-depth summative survey at the end of the series. The webinar survey results were highly positive. In the summative survey, the participants indicated 100% satisfaction with the number of lessons, choice of topics, expertise of presenters, quality of presentations, Ted-Ed lessons, communication, and instruction. They also provided some suggestions for improvement including reducing the length of individual webinar sessions, facilitating more interaction during the synchronous sessions, and increasing the variety of target languages discussed by presenters.

Andragogy principles (Knowles, 1973, 1984) suggest that adult learners are predisposed toward problem-centered learning rather than content-oriented learning, and adults are most interested in learning subjects that have immediate relevance to and impact on their job or

personal life. The OLP series was designed to meet online language teachers' needs for professional development, and to make sure they could adapt the knowledge and technology they acquired about education in general for specific application in their online classroom. While participants did have a chance to reflect on what they learned via the 3-2-1 reflection and online discussion, allowing them the chance to consider how the content had "immediate relevance to and impact on" their professional life, they were not assigned hands-on tasks during the webinar sessions, which potentially reduced the "problem-centeredness" of the module. The evaluation results, including specific feedback on suggested improvements, will form the basis for the redesign of our next iteration to enhance participants' motivation and increase opportunities for engagement.

Conclusion

The distinct mission and expertise that is typically part of LCs is not always understood well in other disciplines and is sometimes questioned from strategic or budgetary perspectives. Showcasing how LCs might provide a model for other fields to implement professional development deeply grounded in a discipline strengthens the need for and value of preserving units that possess unique know-how that could potentially be utilized to strengthen other units. This chapter illustrates how LCs might portray themselves as necessary agents of change and improvement at the institutional level by offering situated professional development opportunities that transcend the confines of the institution. In this regard, the creation of open educational resources through LC activities gives LCs an extra edge, since it not only makes their work more visible to other institutions but also helps LCs in other institutions make a case for creating OERs that expand or supplement the current inventory. Hopefully, this chapter will inspire similar endeavors.

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Appendix A

Key Activities

ADDIE Model Phases	Key Activities	
	Case Study 1: Faculty Orientation	Case Study 2: Online Language Pedagogy
Analysis	<ul style="list-style-type: none"> ● A college-wide survey was deployed by the CLT to identify LLL faculty’s PD needs; the key themes of “content,” “interaction,” and “technology” were identified ● An advisory board proposed a college-wide policy aimed at instructors teaching online courses ● A registrant survey is used by the CLT for each iteration to identify and address participants’ needs 	<ul style="list-style-type: none"> ● A survey was deployed by the NFLRC to in-service K-12 online language teachers nationwide to identify their needs and topics for three OLP modules ● Based on survey results, “designing interaction for online language learning” was selected as the topic for Module 1
Design	<ul style="list-style-type: none"> ● Design was based on a modular structure and followed an iterative process ● PD was designed as a series of face-to-face facilitator-led sessions ● Content, pedagogy, and technology were emphasized in the series following the TPACK model ● The series curriculum integrated theoretical and practical components ● Badge certification was designed to provide evidence of participants’ learning 	<ul style="list-style-type: none"> ● Design was based on a modular structure ● PD was designed as a series of five 2-hour sessions offered in a webinar format, with each session divided into three 30-minute lessons and a reflection component ● Theory, best practices, and technology were emphasized in the series following the TPACK model ● Experts in the field were invited as guest speakers to teach individual lessons ● A facilitator was recruited to moderate webinars ● Certification in the form of digital badges and CEU was designed to provide evidence of participants’ learning

Development	<ul style="list-style-type: none"> ● Core content thematically divided into three components was created by the CLT and hosted on a resource page ● In-session activities, homework, and badge criteria were developed and put in the main website ● The main website was supplemented by an institutional LMS 	<ul style="list-style-type: none"> ● Content of individual lessons was developed by presenters (i.e., invited guest speakers and NFLRC staff) ● The NFLRC staff developed the content for the main website, badge tasks, and TED-Ed lessons that were based on the video-recorded webinar lessons
Implementation	<ul style="list-style-type: none"> ● PD series is advertised via email; registration is required for participation ● PD is offered every semester as a series of six 90-minute face-to-face sessions comprising facilitator-led presentations and hands-on tasks ● CLT faculty provide participants opportunities to receive additional help outside of face-to-face sessions ● Participants' tasks are evaluated and used as a basis for the awarding of badges 	<ul style="list-style-type: none"> ● Module 1 was advertised via email to the instructors who had responded to the original nationwide survey; registration was required for participation ● Module 1 was offered as a pilot to a small group of online language instructors in Fall 2015 ● The facilitator evaluated participants' tasks that were used as a basis for the awarding of badges and CEU ● TED-Ed lessons based on video-recorded webinars were offered as OER
Evaluation	<ul style="list-style-type: none"> ● Evaluation is integrated in different phases and used as a basis for revisions ● A focus group study was conducted after the first iteration to improve the series ● A survey is deployed after each iteration to elicit participants' feedback that is used for iterative redesign efforts 	<ul style="list-style-type: none"> ● Short formative surveys (after each webinar) and an in-depth summative survey were deployed to elicit participants' feedback used to inform design and development of subsequent OLP modules

Appendix B

Andragogy Principles and Their Implementation

Andragogy Principles (Knowles, 1984)	Case Study 1: Faculty Orientation	Case Study 2: Online Language Pedagogy
Adults need to be involved in the planning and evaluation of their instruction.	A college-wide survey was conducted to analyze instructor needs. After each iteration, participants' feedback is used to identify any emergent needs and to revise the next iteration.	OLP topics were selected based on the input from K-12 online language teachers nationwide who completed a survey.
Experience (including mistakes) provides the basis for the learning activities.	Hands-on activities provide participants opportunities to apply what they have learned and reflect on it.	The final report (3-2-1 reflection) and online discussions provide the basis for learning activities.
Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.	The series covers topics related to online learning which have immediate relevance for participants as they plan to teach online.	The topic was relevant to participants because (a) it was selected based on the input from online language teachers, and (b) they were expected to apply this knowledge as in-service teachers.
Adult learning is problem-centered rather than content-oriented.	The series provides participants with opportunities to apply newly acquired knowledge about online learning to developing a blueprint of their future online course and creating sample activities and tasks.	Participants could adapt the knowledge they have learned in the series to their own online teaching context.