From Needs Assessment to Communities of Practice for Online Continuing-Education Programming

Alaina Feltenberger Beaver
University of Colorado
Alaina.Feltenberger@Colorado.edu

Fenimore Johnson
University of Colorado
Fenimore.Johnson@Colorado.edu

Caroline Sinkinson
University of Colorado
Caroline.Sinkinson@Colorado.edu

Abstract

This study identifies the professional development needs of instructors teaching online using quantitative and qualitative methods. Twenty-six participants from a convenience sample at the University of Colorado, Boulder's Division of Continuing Education (CE) were surveyed in a Faculty Needs Assessment (FNA) that was open to participants from September to October of 2013, and six of those participants self-selected into an open focus group interview in November 2013. Survey participants were asked questions about skills and knowledge gaps, learning preferences, and other support needed to help advance their professional development. Focus group participants were interviewed to provide further detail about the themes that emerged from the survey. The findings revealed specific pedagogy and technology training needs, platform preferences for the delivery of training and community engagement, and barriers to professional development. The results of the study provide direction on designing a learning and performance strategy to meet instructors' professional development needs.

Introduction

The current moment in higher education is characterized by the growth in online education offerings and an increase in the number of online students (Allen and Seaman, 2014). As such, increased attention to the quality and effectiveness of online educational opportunities permeates professional literature and higher education discussions. Administrators, support staff and faculty hold an equal stake in questions surrounding quality assurance and iterative improvements. Ultimately, institutions of higher education are committed to fostering meaningful learning environments that improve student learning, regardless of modality. However, online learning environments bring unique challenges in technological, pedagogical, administrative and curricular dimensions.

This paper looks specifically to the challenges of supporting online teachers' professional

development, both in terms of pedagogical design needs and technical proficiencies. Online teaching faculty—largely adjuncts—are not a homogenous group nor are their knowledge and skills uniform; furthermore, many online teachers transition from the physical classroom to the virtual classroom with minimal training and support (Miller and Bedford, 2013). Motivated by these defining characteristics of online teachers and the current higher education climate, members of CE's Independent Learning and the University Libraries conducted a Faculty Needs Assessment (FNA) to determine the support mechanisms most attractive to local instructors of online courses. The primary goal was to identify the professional development needs of instructors, including both areas of online pedagogy and technical skill proficiency, while also measuring preferences of modality and logistics.

The ongoing challenge of how to best support instructors, as they design online courses, is further complicated due to the complex digital information environments in which both teachers and students reside. In addition to improving the technical and pedagogical dimensions of online courses, educators need to remain cognizant of students' digital and information literacy needs. As new technologies and modes of communication rapidly change the landscape of literate environments, students need to be able to learn and compose across a variety of modes in order to be successful communicators (National Writing Project et al, 2010; Lankshear and Knobel, 2003). Such critical awareness marks a secondary goal of this study and represents the researchers' commitment to supporting both online teachers and online learners.

Background

With the significant growth in online education, institutions increasingly rely on professional adjunct instructors for their flexibility and specialized expertise to support this growth (Allen & Seaman, 2013; Bedford, 2009; Tipple, 2010). Adjunct instructors represent teachers with diverse levels of motivation, engagement and proficiencies, which complicates the design of effective professional development programming. Nonetheless, higher education leaders cannot ignore the motivational characteristics of their teaching staff if they wish to design effective teacher professional development programming (Tipple, 2010).

Seeking ways to robustly support online instructors, institutions have approached faculty support through a variety of models and practices. Some institutions place online teacher development responsibilities in the hands of center for teaching and learning staff (Weaver et al., 2008). Another common approach is the pairing of senior and novice online teachers in mentoring relationships (Hixon et al., 2011). Similar approaches look to the development of a community of practice, or as Ellis and Phelps (2000) describe, a collaborative action learning model. Not surprisingly, online training or courses are also a popular strategy (Terantino and Agbehonou, 2012; Roman et al., 2010; Shattuck and Anderson, 2013). Assessment of these various models has revealed mixed reviews by attendees. Because instructors bring varying motivations and scheduling pressures, Weaver et al. (2008) advocate for a hybrid model that offers an array of professional development options: face-to-face workshops, integration with other campus professional development groups, local support groups, one on one support, drop-in sessions, exemplar sites and courses, online resources, paper resources, local conferences, awards and recognitions, funding and fellowships, mentor programs, and small groups (p. 771).

Given the variety of models for professional development and the diversity of needs, institutions are challenged to create systematic and responsive strategies. Learning and performance professionals emphasize the importance of conducting needs analyses to

identify appropriate strategies for local contexts and specific audiences (Clark, 2003; Rosset & Schafer, 2006; Rossett, 1998; Handshaw, 2014; Jerabeck et al. 2002; Shaffer et al., 2004; Hines, 2006; Kvenlind and Bowles-Terry, 2011). Campus colleagues at the University of Colorado, Boulder adopted this approach as they conducted a formal investigation of support and professional development opportunities for local online teachers. The Faculty Needs Assessment examined instructors' motivational drivers, skills and knowledge gaps, and learning preferences in order to prescribe a personalized blend of training, performance support, knowledge management, and other professional development strategies.

Context

The University of Colorado, Boulder's Division of Continuing Education (CE) has operated since 1911 in order to offer non-traditional modes of learning. In 2013-2014, the program offered two hundred and seventy online term-based courses, which represents a twelve percent increase from the previous fiscal year. One thousand six hundred and ninety-one students were enrolled in these courses. In order to improve student learning and quality online courses, a team of researchers worked to evaluate online teaching needs.

The research team included an instructional designer, a multimodal writing center director and a teaching and learning librarian; each member brought complementary expertise and perspectives to the study's inquiry. Furthermore, each represented a campus support service invested in programming to support instructor development. The researchers aimed to develop training opportunities which meshed these efforts rather than working in competing and siloed settings.

In this paper, the researchers summarize the study that took place from September to November 2013, provide an analysis of the results, and make recommendations for next steps in support of quality online teaching and learning. While the results are not generalizable to other institutions, the study design and needs analysis demonstrate a systematic review of instructor needs in the interest of supporting online teaching and learning. Additionally, the researchers offer a plan of action, which works collaboratively across campus units and meshes previously established best practices. This action plan will be of interest to educators looking to improve local support programs and strategies.

Research Questions

In undertaking this study, the following research questions served as a guide:

- How does CE support quality online education and instructor development?
- How can CE tailor development opportunities to local instructors' needs?
- How can CE support instructors with information literacy and multi-modal composition curricular design and teaching?
- In what ways can the Faculty Needs Assessment of instructors' preferences, motivations, and interests inform the development of an intra-collegiate community in support of excellence in online education locally?

Defining Terms

The researchers refer to the entire study as the Faculty Needs Assessment (FNA). The FNA was comprised of two parts, the survey and the focus group discussion. The researchers note whenever only one of the two parts is referenced.

For the purposes of this study, the researchers use *instructor* as a generic term for all higher education teachers of online courses employed as adjuncts at CE, irrespective of their job titles or employment statuses as full- or part-time employees.

The researchers also draw on literacy broadly; we refer to 21st century literacies (New London Group, 1996) as a plurality of dispositions, practices and skills that assist individuals as they navigate complex digital and information landscapes. Throughout this study, learning of content and the capacity to produce are broadly captured by the term literacy, drawing on the idea that multiple proficiencies, or literacies, are necessary to achieve a full education and appreciate the diversity of communicative systems in a globalized world (New London Group, 1996).

The researchers define digital literacy as a subset of literacy that specifically has to do with the ability to navigate and create in digital, online and networked environments.

The researchers define multimodal literacy as competence in the ability to communicate across a variety of modes (Kress, 2003), including visually, spatially, aurally, kinesthetically, etc.

The researchers define information literacy in accordance with the "ACRL Framework for Information Literacy for Higher Education" as a "repertoire of abilities, practices, and dispositions" which enhance individuals' understanding of and participation in information landscapes, as well as supporting meaning making and knowledge generation therein (ACRL, 2014).

Methodology

To facilitate rich and nuanced feedback, the study employed both a survey instrument, which was open to all CE instructors to participate in as they desired during September and October 2013, as well as a semi-structured focus group interview comprised of self-selected survey participants in November 2013; both phases of the study resulted in qualitative and quantitative data.

Survey

The researchers identified instructors who were teaching online courses for Independent Learning (IL),a department within the division of Continuing Education and Professional Studies at UCB, as the primary target audience for this study. Therefore, the researchers invited all instructors (62 total) meeting these criteria to complete an online survey. Thirty-one opened the survey, and twenty-six answered at least 80% of the questions (a response rate of 41.9%). The survey included 20 questions that gathered demographic and employment details as well as participants' preferences for professional development opportunities.

Results

This section summarizes survey results specific to the researchers' intended research questions: how to support quality online education; how to tailor support for local instructors' needs; and how to address and support modern literacies.

Demographics

The survey participants represented diverse areas of study, including Arts and Humanities, Social Sciences and the Sciences. A majority of the participants (83% | 26) have been teaching online for more than two years and typically teach five or more credit hours each semester (81% | 25).

The survey asked participants to provide details of their employment status to reveal how teaching fits into their overall professional lives. As predicted, local online instructors are not uniform in their employment and professional needs or trajectories. The researchers grouped participants' responses into four main clusters, as defined by Gappa and Leslie (1993), in order to draw more meaning from participants' responses (Shattuck and Anderson, 2013). The largest number of local online teachers indicated some element of the *'Aspiring academic,'* which is defined as someone whose ambition is to work in the academy. This cluster includes graduate students and other academics seeking full time work, as well as those who work with some combination of part time and full time teaching responsibilities, perhaps at multiple institutions (Gappa and Leslie, 1993, p. 48). The second largest group shared characteristics with the '*Specialists, experts and professionals*' cluster. These instructors work in a professional capacity in addition to their teaching activities (Gappa and Leslie, 1993, p.48).

Categories	Characteristics
Aspiring academics: (23)	Graduate students (5) Looking for full time (2) Full time instructor who works part-time as online instructor (9) Part time in-person and part time online (3) Instructor at several institutions (2) Full time online instructor (2)
Specialists, experts, and professionals: (6)	Full time professional and online teacher (1) Professional and teach online (1) Degreed but not working in field (4)
Freelancers: (1)	Part time professional and part time instructor (1)
Career enders: (1)	Retiree seeking part time work (1)

Table One: Categories and Characteristics of Participants, Including Number of Respondents per Option

The survey participants indicated that the flexibility of the work schedule (30%) and the supplemental income (23% | 7) were highly attractive characteristics of online teaching employment. Other motivations included the opportunity to apply an advanced degree (16% | 5) and the opportunity to develop instructional strategies (27%).

Supporting Quality Online Education

A central goal of the FNA was to identify how to best support quality online teaching. As represented in the literature mentioned above, there are a variety of professional development models in practice for the improvement of online teaching. The researchers designed the FNA survey to reveal the preferences specific to local faculty for professional development

opportunities in terms of modality, group size, and value of support experts.

Professional development programs often engage faculty with the expertise of seasoned teaching colleagues, instructional designers or other technical and support staff. Respondents to this survey indicated an appreciation for one-on-one professional development, which offered consultation with an instructional designer or colleague mentors. Sixty-three percent (21) rated instructional designers as very effective or effective; 60% (18) rated mentors/colleagues as very effective or effective in one-on-one consultation settings.

In addition to one-on-one consultations, the survey also asked participants to indicate their openness and satisfaction with online professional development opportunities to improve teaching and learning. Specifically, the survey instructed participants to consider these options in terms of their individual learning preferences. Participants indicated the greatest degree of satisfaction with shared online resources and references for online instructors. Next, participants rated online modules as effective for learning, whether these were self-paced or instructor-led modules. There was moderate confidence in the effectiveness of communities of practice towards online teacher improvement.

Training and Performance Support Categories	Training and Performance Support Preferences (ranked very effective or effective)
Formal	Self-paced modules (61% | 17) Instructor-led modules (61% | 17) Webinars (29% | 8)
Informal	Community of practice (46% | 13)
Performance Support	Resources/references (66% | 19)

Table Two: Training and Performance Support Categories and Preferences of Participants, Including Number of Respondents per Option

Tailored Instructional Improvement for Local Needs

In addition to addressing the modalities and logistics for delivering professional development opportunities, the needs analysis queried participants about areas of improvement, both pedagogical and technical, which were most compelling and needed.

Survey participants' responses in terms of pedagogical concerns can be grouped into three central areas: creating community, assessment strategies and matching technologies to pedagogical goals. Responses indicated that online instructors recognize the importance of creating community in online learning contexts, but struggle to find the best methods of doing so. Instructors were interested in increasing interactions between teachers and students as well as facilitating engaging discussion forums. Assessments were another major area of interest. Instructors valued the importance of giving prompt feedback to students with both formative and summative instruments. Additionally, instructors showed an interest in assessing the overall effectiveness of the course. The final theme addressed the use of instructional technologies that match learning outcomes, while also enhancing the course overall. Specifically, instructors demonstrated a desire to improve the composition of course video content.

Categories	Pedagogical Concerns

Creating Community	Increasing interactions in an online course (52% | 16) Building and enhancing professor-student relationships (48% | 15) Facilitating online discussion forums (48% | 15)
Assessment Strategies	Creating effective online formative and summative assessments (35% | 11) Determining ways to assess student progress in an online course (35% | 11) Evaluating the effectiveness of online courses (29% | 9) Providing meaningful feedback on assignments (26% | 8)
Matching Technologies and strategies with Instructional Purpose	Choosing appropriate technologies to enhance their online course (71% | 22) Creating video clips (55% | 17) Designing teaching strategies and content to match learning outcomes (29% | 9)

Table Three: Pedagogical Concerns of Participants, Including Number of Respondents per Option

In addition to broad pedagogical improvement areas, the researchers designed the FNA survey to identify where instructors struggled with current campus technologies. Participants were asked to rate the ease of use of the course management system in a number of areas. The functionalities that received the poorest ratings for ease of use included management of students groups, management of grades and quizzes, managing the course calendar, and providing feedback, among others. Participants also ranked the learning management system's ability to meet their needs. These responses mirrored the responses to ease of use and indicated dissatisfaction with managing quizzes and grades, the course calendar, and student groups.

In addition to instructors' proficiencies with the main campus learning management system, the researchers sought to understand technical needs beyond this primary tool. The survey responses indicated a great deal of interest in video-related content, such as lecture capture, video conferencing, video hosting platforms, and audio capture.

Categories	D2L Functions
D2L Ease of Use Number of participants who disagreed or strongly disagreed about the ease of use of the following D2L functions:	Managing student groups – discussion/team projects (30% | 8) Managing course materials (organizing, editing, deleting, etc. (28% | 8) Managing grades (28% | 8) Online quizzes/exams (28% | 8) Course calendar (23% | 7) Providing feedback to students on assignments (23% | 7) Releasing course materials by date or other conditions (21% | 6) Online surveys (19% | 5) Managing student assignments submission (Dropbox. etc.) (17% | 5)

	Repurposing course materials for multiple courses or semesters (17% | 5) Sending email to students (17% | 5) Discussion forums (asynchronous) (17% | 5)
How D2L Meets Needs Number of participants who disagreed or strongly disagreed about D2L functions meeting their needs:	Number of participants who disagreed or strongly disagreed about D2L functions meeting their needs: Managing grades (26% | 7) Course calendar (24% | 7) Online quizzes/exams (21% | 6) Managing student groups – discussion/team projects (21%| 6) Repurposing course materials for multiple courses or semesters (20% | 6) Online surveys (19% | 5) Sending email to students (18% | 5) Providing feedback to students on assignments (18% | 5)
Interest in other Educational Technologies Number of participants who agreed or strongly agreed about their interest in other educational technologies:	Number of participants who agreed or strongly agreed about their interest in other educational technologies: Originality checking, (e.g. Turnitin) (78% | 21) Lecture/screen capture (e.g. Camtasia Relay, etc.) (76% | 22) Video Conferencing (e.g. Skype) (71% | 20) YouTube, Vimeo, other video platform (69% | 20) Podcasts (e.g. iTunesU) (52% | 15) Web Conferencing (e.g. Adobe Connect) (52% | 15)

Table Four: D2L Function Meeting Needs, Including Number of Respondents per Option

Supporting Modern Literacies and Universal Design

Another central goal of the FNA was to identify opportunities for improving students' cultivation of multiliteracies and information literacies in online learning environments. Recognizing that students will reside in increasingly complex and networked information contexts, the researchers remain committed to helping online teachers design assignments and opportunities that build students' skills in these areas. The researchers also recognize that students bring variation in terms of technical proficiencies, learning styles and abilities. Therefore, the FNA survey also measured instructors' awareness of Universal Design for Learning (UDL).

Information Literacies

On the UCB campus, university librarians have played a significant role in developing information literacy initiatives and in the design of student learning outcomes as related to information literacy. In doing so, the librarians have designed and authored various tools to enhance student learning and the cultivation of modern literacies. The tools include online learning modules, screencasts, and assignments as well as numerous other library resources that are available for integration into online courses. However, the researchers lacked a clear understanding of how, and to what degree, online instructors took advantage of these offerings.

The survey confirmed some participants' awareness of library services and resources. The most popular tool among the survey participants, who actively used library services in their courses, was the Libraries' catalog, Chinook (54% | 13); next, some faculty point to library databases (46% | 11); other resources faculty utilized include guides (21%| 5), "How Do I" pages (13% | 3), chat consultations (13% | 3), and videos (8% | 2).

The FNA survey also posed questions to gauge interest in future developments in support of information literacy. The most popular (very effective or effective) interventions that take advantage of librarian expertise were: embeddable online learning modules (65% | 17), virtual research consultations (62% | 16), embedded librarian chat window (62% | 16), student requested small group instruction (50% | 13), and a stand alone information literacy course (50% | 13).

Fifty-six percent (14) of participants reported that they would (somewhat likely to very likely) take advantage of an online repository of information literacy resources, collaborative design of assignments, and tailored instruction for courses. The online repository of tools collected the highest number of likely to very likely (12).

Multiliteracies and Multimodal Teaching

In addition to information literacies, the researchers value multiliteracies as discussed by the New London Group (1996) and defined as communicative practices across a range of modes and diverse communicative systems in a modern, networked world. The researchers were interested in the degree to which instructors were familiar with the term multiliteracies and to what extent they would be interested in incorporating an ethos of multiliteracies in their courses, starting with learning more about multimodal assignment design and external support services such as the Online Composition Hub, CE's online multiliteracy tutoring center.

Sixty-two percent (16) of participants indicated that they were previously familiar with the term multiliteracies. Twenty-three percent (6) of participants had not heard of the term, while fifteen percent (4) were not sure if they were familiar with the term.

Sixty-two percent (16) of participants also indicated that they would like to learn more about how multiliteracies and multimodal teaching are connected to teaching with technology. The most popular option (indicating "strongly agree" or "agree") on how to learn more about incorporating multiliteracies and multimodal teaching was through the use of an online training module (54% | 14). Forty-two percent (11) of participants indicated "strongly agree" or "agree" that they would want to attend an in-person workshop about multiliteracies and multimodal teaching, while 38% (10) selected one of these survey options in regards to interest in meeting with a colleague or staff person to learn more about multiliteracies and multimodal teaching. Very few participants indicated that they were not interested in learning about these topics, though 38% (10) participants selected a neutral position, neither agreeing nor disagreeing that multiliteracies and multimodal teaching would be of interest in their professional development.

Participants were largely previously aware that the Online Composition Hub existed as an online multiliteracies center for their students (72% | 18), and 96% (24) of participants indicated agreement that they would encourage their students to seek out this resource, even if they had just learned of its existence through the FNA survey.

Universal Design

Universal Design for Learning (UDL) is a research-based framework that can guide instructors in creating effective curriculum for a diverse population (Meyer, Rose & Gordon, 2014). As a both a theoretical and practical framework, Universal Design for Learning (UDL) has existed since 1984, when the Center for Applied Special Technology (CAST) was founded by educators to help increase accessibility for diverse learners. While UDL is particularly useful in designing technology-driven curricula such as that CE instructors teach, the researchers were curious as to instructors' familiarity with UDL and whether or not they used or would be open to using such strategies. Participants were asked about their familiarity with UDL principles and whether or not they had received formal training on accommodating for disabilities in online courses. Half of them (15) were unsure about universal design principles, 23% (7) were familiar with the principles but had not implemented them, and 27% (8) percent have adapted their courses according to UDL principles.

Focus Group

All participants who completed the survey were invited to attend a focus group session. Six participants opted to do so. The focus group participants were affiliated with a variety of disciplines, including Writing & Rhetoric, English, Physics, Mathematics, as well as Political Sciences. The participants ranged in online teaching experience from less than one year to more than five years.

At the start of the focus group session, each participant completed a consent form. The focus group was facilitated by one of the study researchers, who guided the focus group with semi-structured questions, while another researcher collected notes and observations. The research team prepared six questions that were designed to invite dialogue, brainstorming, and new ideas about a community of professional development.

The researchers analyzed the session's recording, as well as textual notes, in order to identify core themes and trends consistent in the focus group and the survey.

Results

The focus group session resulted in four primary themes that the researchers hope to translate into action: community development, sharing of resources and samples, development of best practices, and enhanced work with support structures for instructional design, information literacy and multiliteracies.

The participants enthusiastically discussed the potential for a community that supports online teaching and learning. When discussing the ideal modality of such a community, participants expressed interest in both online and face-to-face options. The online option was attractive in order to facilitate teacher experience of online learning that might mimic student experiences. However, the participants encouraged face-to-face options in order to support organic conversation and idea building. In terms of the online options, participants did not unanimously agree on the platform; some suggested D2L, while others supported platforms that were more mobile-friendly.

When imagining what the community might produce, participants expressed a strong interest in a number of shared resources, including: an online learning object repository, sample courses, sample assignments, sample student work, and sample videos. The participants also saw the online space as an ideal venue to share teacher profiles, testimonials, and shared

failures and successes. Finally, the participants expressed interest in instructional videos and suggestions from experts, such as the CE instructional designers.

There was a clear desire for a set of best practices that might guide new and developing online teachers. Participants identified a number of topics that would improve with best practice documentation, including: course introduction videos, activities and materials to acquaint students with the site navigation, methods for assessing and negotiating students' technological proficiencies, and methods for increasing student participation, interaction, and identity sharing.

When discussing information and multimodal literacies, the participants' interests indicated a wide area of potential growth in this arena. The participants showed enthusiasm to learn and use library-related learning content about specific databases, about research process and library-related instruction, and about adding content to D2L course. In regards to both the multimodal advisors and librarians, the participants suggested welcome videos from individuals. There was also interest in consultation services for assignment design of research and multimodal projects. Finally the participants suggested the formation of a multimedia and literacies interest group.

Summary & Implications

Based on analysis of the FNA data, the researchers grouped findings into four main areas for development: Community of practice, support variation to match motivation, promotion of support services and technology training. After analyzing each development area, the researchers established precise actions as well as suggested time frames for implementation (see table 8). Recognizing that other institutions have established quality assurance processes (Kilfoye, 2013; Brannagan, K. B., & Oriol, M., 2014), the research team recommends that an internal process assessment occur prior to the implementation of the next steps. In doing so, CE will be able to clearly define a quality assurance process that includes certification trainings, readiness checks, quality review, and student evaluations in line with the FNA study outcomes (Antony, J., Krishan, N., Cullen, D., & Kumar, M., 2012; Kilfoye, 2013).

Community of Practice

Both the survey and the focus group transcripts revealed a sense of isolation amongst online instructors. Participants repeatedly expressed a desire for support staff expertise as well as that of teaching colleagues, as captured in this participant's desire for "an online community to share tips, tricks, worries and such, perhaps combined with online training/technology enhancements."

As a result of this study, the researchers intend to develop a community of practice for online teachers (Table 5). Current barriers to this goal include the lack of a formal community, or 'departmental home,' to which all instructors identify. Therefore, the community facilitators will need to be coordinated and arranged in a decentralized manner.

Develop Community of Practice	Timeline
Create virtual space for online teachers	3 months
Hold an in-person meet-up or event for all online teachers	9 months
Identify teacher from each discipline or department	9 months

to act as mentor	
Populate online community hub with content	1 year
Assess online community hub	2 years

Table Five: Develop Community of Practice: Actions & Timeline

Support Variations to Match Motivation

This study echoed similar findings from other institutions, which stress the importance of acknowledging online teachers' diverse levels of motivation and time. Therefore, the researchers plan to establish a variety of instructional improvement opportunities that match motivation, time and modality constraints.

The FNA revealed that instructors struggle to identify and prioritize worthwhile course improvements. In other words, instructors must make judgments as to which improvements are worth the time and will deliver perceivable results. Similarly, instructors expressed a lack of confidence in judging the affordances of a new technology measured against the time commitment for learning. In response to these barriers, the researchers will design rubrics and assessments that are mapped to solutions and support services. For example, instructors may choose to complete a self-directed course assessment or an instructor might choose to meet one on one with a peer coach. In either case, the results will guide instructors as they decipher which areas of the course most warrant their attention. Additionally, through these assessments and individualized investigations, instructors will receive information about appropriate resources or support staff (Table 6).

Develop Support Variations	Timeline
Develop and make available: Quality matters rubric	3 months
Develop and make available: Course evaluation rubric (self/ peer)	3 months
Develop and make available: Student satisfaction survey	3 months
Develop and make available: Exemplar courses	6 months
Develop and make available: Questionnaire and results rubric for support services	6 months
Develop and make available: Revision Plan (Quality matters, student satisfaction survey, self-evaluation)	1 year
Design quality improvements plan	3 months
Investigate customer relationship management tools	6 months
Offer project management protocols for course design/ revision	6 months
Offer training opportunities in varied modalities	1.5 years

Table Six: Support Variations to Match Motivation: Actions & Timeline

Knowledge of Support Services

The study confirmed that a few instructors take advantage of support services, such as the

online multiliteracies center and the libraries, but these resources remain largely underused. The lack of use did not mirror participants' reported needs and interests in these services. Therefore, the researchers will develop a plan that will spotlight these services while also cultivating collaborative relationships across departments (Table 7).

Support Services	Timeline
Integrate support services into orientation and certification programs	1.5 years
Facilitate process to request support (online form)	1 year
Curate exemplars and effective course use of support service	1 year
Develop repository of learning objects mapped to needs and objectives	1 year
Integrate support services into formal/ informal course assessments	1 year

The study confirmed that a few instructors take advantage of support services, such as the online multiliteracies center and the libraries, but these resources remain largely underused. The lack of use did not mirror participants' reported needs and interests in these services. Therefore, the researchers will develop a plan that will spotlight these services while also cultivating collaborative relationships across departments (Table 7).

Table Seven: Knowledge of Support Services: Actions & Timeline

Technology Training

The study showed that while several resources exist to support skills and knowledge around technology and pedagogy, there is a need to design and develop training on more advanced technology topics and to surround those training materials with guidance on justifying the use of specific technologies toward targeted learning outcomes (Table 8).

Technology Training	Timeline
Design certification training (including orientation)	1.5 years
Create training track and scaffolds	1 year
Assess technology and skill-based needs (annually)	1 year

Table Eight: Technology Training: Actions & Timeline

An aggregate timeline of the researchers' proposed actions is as follows in Table 9.

Timeline	Action Item	Category
3 Months	Create virtual space for online teachers	Community of Practice
	Develop and make available: Quality matters rubric	Support variations
	Develop and make available: Course evaluation rubric (self/ peer)	Support variations
	Develop and make available: Student satisfaction survey	Support variations

	Design quality improvements plan	Support variations
6 Months	Develop and make available: Exemplar courses	Support variations
	Develop and make available: Questionnaire and results rubric for support services	Support Variations
	Investigate customer relationship management tools	Support Variations
	Offer project management protocols for course design/ revision	Support Variations
9 Months	Hold an in-person meet-up or event for all online teachers	Community of Practice
	Identify teacher from each discipline or department to act as mentor	Community of Practice
1 year	Populate online community hub with content	Community of Practice
	Develop and make available: Revision Plan (Quality matters, student satisfaction survey, self-evaluation)	Support services
	Facilitate process to request support (online form)	Support services
	Curate exemplars and effective course use of support services	Support services
	Integrate support services into formal/ informal course assessments	Support services
	Create training track and scaffolds	Technology
	Assess technology and skill-based needs (annually)	Technology
1.5 years	Offer training opportunities in varied modalities	Support variations
	Develop repository of learning objects mapped to needs and objectives	Support services
	Design certification training (including orientation)	Technology
2 years	Assess online community hub	Community of Practice

Table Nine: Implementation Plan Chronologically

Conclusion

The faculty needs assessment successfully revealed instructors' preferences and concerns

while also directing future strategies for quality improvements. Based on the study evidence, the researchers designed responsive action items that will be implemented, assessed and revised in line with instructors' ongoing needs. In this manner, CE will continue to illustrate a commitment to teacher development and improved student learning. Contextually, these action items will involve ongoing opportunities for needs analysis, assessment and revision, so that support personnel in our community can engage in a productive praxis with instructors in reaching desired goals.

Our FNA study shares findings and results from a specific and unique learning environment, which is not intended to be generalizable to all institutions. However, the study findings do have implications for best practices in program implementation and improvement for distance learning administrators and senior institutional leaders who have responsibility for both credit and non-credit programs. The FNA study also suggests further questions for research, including but not limited to:

- What is the nature of support desired by instructors varied by discipline?
- To what degree do the proposed communities of practice impact instructors' desire to participate in the scholarship of teaching and learning?
- What methods are most successful for campus support services to make themselves more available to distance learning educators?
- What formalized methods of professional development might be offered? (Rubin, 2013)

This study also provides a detailed outline of a useful methodology that other institutions may adapt to assess the needs of their respective teaching communities, which then may be translated to strategic action plans. Additionally, this study advocates for strong collaborations and interdepartmental teams working in support of higher education distance learning programs.

References

ACRL. (2014). Framework for information literacy for higher education. Retrieved from http://acrl.ala.org/ilstandards/?page_id=133

Allen, I. E., & Seaman, J. (2014). Grade change: Tracking online education in the United States, 2013. Babson Survey Research Group, Pearson and the Sloan Consortium. Retrieved from http://onlinelearningconsortium.org/publications/survey/grade-change-2013

Antony, J., Krishan, N., Cullen, D., & Kumar, M. (2012). Lean Six Sigma for higher education institutions (HEIs): Challenges, barriers, success factors, tools/techniques. International Journal of Productivity and Performance Management, 61(8), 940-948.

Bedford, L. A. (2009). The professional adjunct: An emerging trend in online instruction. Online Journal of Distance Learning Administration, 12(3). Retrieved from http://www.westga.edu/~distance/ojdla/fall123/bedford123.html

Brannagan, K. B., & Oriol, M. (2014). A model for orientation and mentoring of online adjunct faculty in nursing. Nursing Education Perspectives, 35(2), 128-130.

Clark, D. (2003). Blended learning. An epic white paper. Brighton, UK: Brighton, UK: Epic Group. Retrieved from http://www.alapitvany.oktopusz.hu/domain9/files/modules/module15/261489EC2324A25.pdf

Ellis, A., & Phelps, R. (2000). Staff development for online delivery: A collaborative, team-based action learning model. Australian Journal of Educational Technology, 16(1), 26–44.

Gappa, J. M., & Leslie, D. W. (1993). The invisible faculty: Improving the status of part-timers in higher education. San Francisco: Jossey-Bass.

Handshaw, D. (2014). Training that delivers results: Instructional design that aligns with business goals. New York: AMACOM.

Hines, S. S. (2006). What do distance education faculty want from the Library? Journal of Library Administration, 45(1-2), 215–227. doi:10.1300/J111v45n01_12

Hixon, E., Barczyk, C., Buckenmeyer, J., & Feldman, L. (2011). Mentoring university faculty to become high quality online educators: A program evaluation. Online Journal of Distance Learning Administration, 14(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter144/hixon_Barczyk_Buckenmeyer_feldman144.html

Jerabek, J. A., McMain, L. M., & Roekel, J. L. V. (2002). Using needs assessment to determine library services for distance learning programs. Journal of Interlibrary Loan, Document Delivery & Information Supply, 12(4), 41–61. doi:10.1300/J110v12n04_06

Lighthall, A. (2012, Fall). Ten things you should know about today's student Veteran. National Education Association [Thought and Action], 28, 82-90. Retrieved from ERIC ISSN-0748-8475

Kilfoye, Charles (2013). Building a practical training and support model for today's online learning in higher education. In R.M. Kesner (Ed.), The online university: building viable learning experiences for higher education (pp. 239-260) Champaign, IL: Common Ground.

Kress, G. R. (2003). Literacy in the new media age. London?; New York: Routledge.

Kvenild, C., & Bowles-Terry, M. (2011). Learning from distance faculty: A faculty needs assessment at the University of Wyoming. Journal of Library & Information Services in Distance Learning, 5(1-2), 10–24. doi:10.1080/1533290X.2011.548239

Lankshear, C., & Knobel, M. (Eds.). (2008). Digital literacies concepts, policies and practices. New York: Peter Lang.

Meyer, A., Rose, D. H., & Gordon, D. (2014). Universal design for learning: Theory and practice. CAST Professional Publishing.

Miller, H., & Bedford, L. (2013). All adjuncts are not created equal: An exploratory study of teaching and professional needs of online adjuncts. *Online Journal of Distance Learning Administration*, *15*(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring161/bedford_miller.html

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. Harvard Educational Review, 66, 60-92.

National Writing Project, DeVoss, D. N., Eidman-Aadahl, E., & Hicks, T. (2010). Because digital writing matters: Improving student writing in online and multimedia environments. John Wiley & Sons.

Roman, T., Kelsey, K., & Lin, H. (2010). Enhancing online education through instructor skill development in higher education. Online Journal of Distance Learning Administration, 13(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter134/roman_kelsey134.html

Rossett, A. (1998). First things fast: a handbook for performance analysis. San Francisco: Jossey-Bass.

Rossett, A., & Shaffer, L. (2006). Job aids and performance support: Moving from knowledge in the classroom to knowledge everywhere (2 edition.). San Francisco, CA: Pfeiffer.

Rubin, B. (2013). University business models and online practices: A third way. Online Journal of Distance Learning Administration, 15(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring161/rubin.html

Shaffer, J., Finkelstein, K., & Lyden, N. W. E. (2004). A systematic approach to assessing the needs of distance Faculty. Journal of Library Administration, 41(3-4), 413–428. doi:10.1300/J111v41n03_07

Shattuck, J., & Anderson, T. (2013). Making a match: Aligning audience, goals, and content in online adjunct Training. Online Journal of Distance Learning Administration, 16(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter164/shattuck_anderson164.html

Terantino, J. M., & Agbehonou, E. (2012). Comparing faculty perceptions of an online development course: Addressing faculty needs for online teaching. Online Journal of Distance Learning Administration, 15(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer152/terantino_agbehonou152.html

Tipple, R. (2013). Effective leadership of online adjunct faculty. Online Journal of Distance Learning Administration, 13(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring131/tipple131.html

Weaver, D., Robbie, D., & Borland, R. (2008). The practitioner's model: Designing a professional development program for online teaching. International Journal on ELearning, 7(4), 759–774.