

College of Agriculture and Life Science (CALS) Faculty Professional Development Resource:

Best Practices for Teaching at a Distance

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Abstract

Professional development is a necessary component of most jobs and professions. University faculty members who teach in online or hybrid environments need professional development to improve their teaching, stay current with new technologies, and to interact with students in online environments. Universities are responsible to provide professional development for their faculty. This includes materials and information to assist them in being prepared to teach in an online environment. Professional development can be focused to a departmental or college level providing examples and training for faculty members to use and adopt.

Communities of practice will form and grow from the sharing of examples and ideas. Having a single location for faculty to receive professional development, look up basic pedagogical knowledge, adopt templates and share ideas while staying abreast of technological best practices is an ideal situation. A resource was developed and structured to house the knowledge and information which supports the faculty, the administration and ultimately the students. This work examined the components of adult learning theory and instructional design theory together to create a single source location which if utilized supports the faculty with the knowledge and skills to set up and maintain a distance learning course. Interviewed instructors and administrators stated the resource would do what it was intended.

Recommendations include additional text and video support for accessibility and further information chunking.

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Introduction

Delivery of content online is not necessarily a new idea, but it is a change to what faculty members envision when they accept a teaching position. Changing from the traditional delivery in a formal classroom setting or from a laboratory to the online environment does pose some challenges (Zirkle, 2004). There is a larger emphasis placed on the student-content interaction and the content's ability to maintain a high level of student engagement. The mode for student-to-student interaction is also different between traditional classroom and online delivery methods. It is necessary for the faculty member to provide opportunities for peer interaction in the online environment and maintain a presence throughout the duration of the course, so students know there is a person who cares about their learning. Moving to online delivery does not mean that the faculty member is removed from the course, but instead has a higher level of interaction within the online environment that benefits the students and increases the participation in discussions within the course (Young & Norgard, 2006).

For this work, distance education is defined as, "a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. A distance education course may use the internet; one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices; audio conferencing; or video cassettes, DVD's, and CD-ROMs if used as part of the distance learning course or program," (Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), 2018, p.1). Instruction may be synchronous, asynchronous, or hyflex. Synchronous distance education occurs when the students and

instructor are not in the same place but do meet at the same time. Asynchronous distance education occurs when there are no meetings of students and instructors and all materials are accessed when it is convenient to them. Hyflex distance education occurs when there is a purposeful combination of elements and structures supporting any combination of face-to-face instruction, synchronous instruction and asynchronous instruction (Educause, 2020).

The idea of a distance learning course brings forth thoughts or concerns about learning new technology, not being able to interact with students, how to accurately measure student's assimilation of the information, and managing the student-instructor interaction. There are identified concerns from faculty members about "the amount of time and effort put into teaching online, and the lack of support and incentives provided," (Baran & Correia, 2014, p.96) to do so. The amount of time should be similar for distance or traditional delivery if the instructor is preparing prior to a lecture, interacting with students during office hours and grading assessments. Discussion preparation and incentives aside, signing a contract to teach means teaching and it is also an agreement with the instructor's administration to provide any needed professional development to enhance appropriate skills. The faculty members putting material online are key within their department or college in the success of the online learning program (Baran & Correia, 2014). The administration has a role to play in allowing for professional development of each individual while maintaining a level of consistency for all who deliver content no matter the delivery method.

Delivering content via distance learning requires additional time in development of materials and teaching strategy before the class begins. Translating material from a traditional course to a distance learning course requires workload analysis by the faculty to maintain rigor

while also determining the best way to present the material. A template can help set a structure to follow and talking to fellow instructors who teach online will help develop ideas. A resource can create consistency, a reference, and standardization for all who teach in a distance learning environment within a department or college by providing a singular point of reference for knowledge and templates. This will increase faculty knowledge level, maintain rigor within their courses and maintain relevance with topics and emerging technologies (Kelly, 2018).

Literature Review

Prior University Professional Development

A College of Agriculture and Life Sciences (CALS) at a mid-Atlantic university that was the focus of this work had professional development options for faculty teaching online provided through campus professional development. These options, especially offerings with instructional designer interaction, are no longer available. Due to university restructuring,

instructional designer interactions in professional development ended in Spring 2020. A self-paced asynchronous offering was in development for faculty but did not get released before the

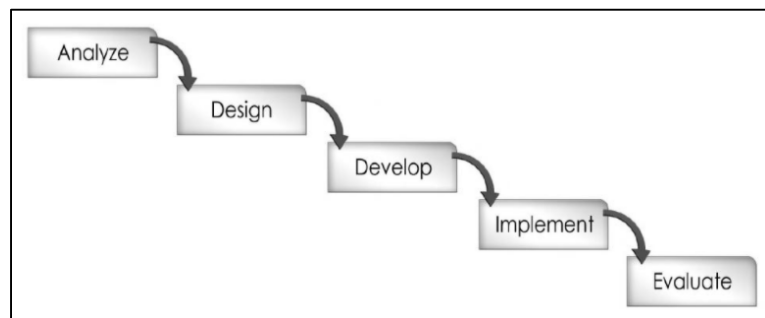


Figure 1. Figure 2-2 ADDIE as a Waterfall Process (Allen & Sites, 2012, p. 16)

professional development opportunities ended. This unpublished tool was developed using the instructional design model known as Analyze, Design, Develop, Implement and Evaluate (ADDIE).

ADDIE follows a step-by-step process otherwise known as a waterfall methodology, or a predictive life cycle (see Figures 1

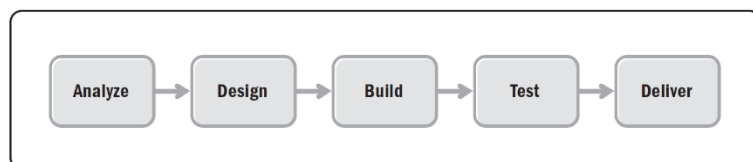


Figure 2. Figure 3-2 Predictive Life Cycle (Project, 2017, p. 21)

and 2). Following the ordered progress of development is predictive and allowed for a logical and iterative process to improve the product through multiple reviews of the model built upon known and proven distance learning best practices for faculty (Project, 2017).

To begin development of the self-paced, asynchronous offering, a needs assessment was conducted in Spring 2019 to determine what the needs were for professional development related to online course preparation. The needs assessment revealed a need for a well-developed, example based, experiential professional development offering for faculty to guide them in preparing to teach distance learning courses

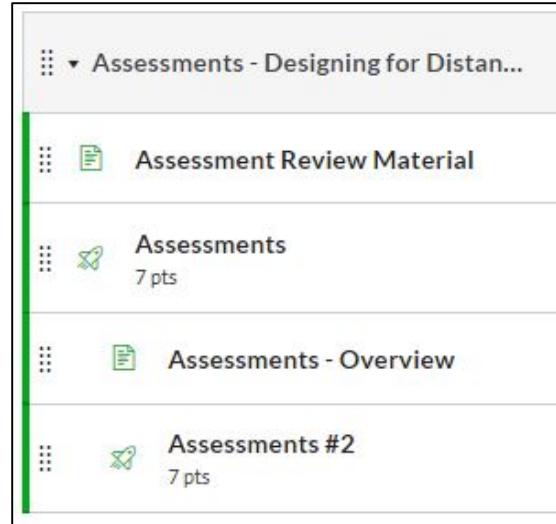


Figure 3. Example topic outline within the model for faculty development

structured around best practices. A model was the best method for showing faculty what the best practices were going

to look like while they learn what they are. The resource developed provided information and templates that were complete and could be used 'as is'. University instructional designers and

Course Objectives:

Upon completion of this course, participants should be able to:

1. Explore the issues and challenges of teaching online in general, and in their specific discipline, through discussion and the sharing of resources and personal experience
2. Differentiate between goals and objectives, between course-level and lesson/lesson-level objectives, and between learning activities and assessments in the construction of a syllabus and planning documents for their course
3. Develop measurable course-level objectives that inform measurable lesson-level objectives
4. Construct an assessment plan that measures learning objectives which are aligned with content and learning activities, and which is manageable for their online course.
5. Compose a summary of the norms, guidelines, expectations, and communication for classroom management in their online course.
6. Identify the elements and characteristics of high-quality, media rich, student-centered and interactive online courses
7. Demonstrate proven strategies and best practices in the development of a high quality, online courses
8. Evaluate the quality of online course elements for their own and other courses using the quality assurance rubric

Figure 4. Objectives from the model for faculty development

three groups of randomly chosen faculty with online teaching experience provided review and feedback during three separate iterations as part of the initial design. A survey collected user

feedback on all aspects of the design, layout, interaction and perceptions from the faculty. All feedback was considered and incorporated as required.

The resource incorporated the foundation of instructional design to provide participating faculty the background information of the importance of the professional development, while embedding best practices to show what it would look like. Using a common resource across a department or college provided a common set of terms for future discussion within the community of learning. With part of the resource being templates for faculty to use in their courses, creating the resource in the current University learning management system (LMS) was deemed appropriate. The topical knowledge within the resource was structured to provide experiential learning for faculty through completion of knowledge checks of provided material and if needed re-check their comprehension of what was presented. The resource that resulted contained specific topical knowledge, comprehension checks within specific areas, and the inclusion of demonstrative templates available for faculty use.

Faculty who participated in the iterative review of the original offering indicated that the content of the professional development was explicit, and the structure was easy to follow and clear. One participating faculty member provided the following statement when asked to respond to a survey,

“I built an online program at my prior place of employment, have built quite a few online courses, and taught online here at VT as a doctoral student. I have done research on online education and presented on it at the Online Learning Consortium: I say all of this to give the proper weight to my next statement. This is the best course on this topic that I have ever taken.”

There was also a consensus that the offering was the correct length to support faculty professional development while meeting their demanding timelines.

The College of Agriculture and Life Sciences is home to a fully online master's program. The Online Masters of Agriculture and Life Sciences (OMALS) program offers opportunities for working professionals to earn their degree on their own time and at their own pace. The CALS faculty who support the seven separate concentration areas are subject matter experts and provide practical application to students. Students graduating from the OMALS program are poised to effectively lead in any number of agricultural and life science industries (Online, 2020).

Federal and State Regulations as Related to Distance Learning

There are published regulations governing certain aspects of distance learning which determine specified and implied tasks oriented toward faculty development and preparation. It is recommended by the Standards for Online Professional Development within the Guidelines for Planning and Evaluation Online Professional Development Courses and Programs that there be adequate and ongoing funding for professional development as part of a distance learning program (Southern Regional Education Board, 2016). A model for faculty development within CALS would provide the faculty the knowledge needed to succeed and excel while also meeting the needs of the faculty in terms of timeliness of instruction and the production of examples to use in developing their own courses. The model being based in best practices supports the statements that instructors who teach in the distance learning environment would be prepared and supported as stated by The Council of Regional Accrediting Commissions (C-RAC) states in

its Interregional Guidelines for the Evaluation of Distance Education Programs (2011). The model also supports faculty as lifelong learners maintaining currency and relevance as they develop skills based on best practices supporting The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) in their Resource Manual for the Principles of Accreditation: Foundations for Quality Enhancement (2018).

The SACSCOC Distance and Correspondence Education Policy looks at the curriculum, instruction, and faculty of an institution knowing “the faculty assumes primary responsibility for and exercises oversight of distance and correspondence education,” (2018, p. 2). The Best Practices for Electronically Offered Degrees and Certificate Programs from SACSCOC offers information from the institution to the individual faculty member level. Specifically, related to a need for a defined professional development program, that the institution should provide training for faculty and that the training will assist the faculty in maintaining their courses to published institution level standards.

The National Council for State Authorization Reciprocity Agreements (NC-SARA) incorporates the C-RAC guideline requirements as specific policies (NC-SARA, 2019). Another state level organization, the State Council of Higher Education (SCHEV) which serves as a state level accrediting body states that the institution must “indicate faculty credentials and training to provide on-line instruction,” (SCHEV, 2016, p. 17). There are also Regulations Governing Certification of Certain Institutions to Confer Degree, Diplomas and Certificates which contains minimum standards for distance education programs and courses. Most notably as it relates to a professional development model, “the school shall provide faculty and student training and support services specifically related to telecommunication activities,” (Regulations, 2016, p. 26).

Throughout this document, telecommunication activities and distance education are used interchangeably.

Accrediting organizations work at multiple levels from national to regional to state level and are all nested within each other to assist in maintaining a level playing field for all universities which they evaluate at their level. The vagueness of what professional development a faculty must have in preparation to teach at a distance comes from the distributed number and type of universities within each accrediting organization's purview. With all the accrediting organizations working with each other at the different levels of influence they all look for professional development being available for the faculty teaching at a distance and that the institution has an outline of what they believe constitutes appropriate training.

Teaching and Learning Online in Higher Education

There are "seven exemplary practices that successful online teachers follow: (1) knowing and creating the course content; (2) designing and structuring the online course; (3) knowing the students; (4) enhancing teacher-student relationships; (5) guiding student learning; (6) evaluating online courses; and (7) maintaining teacher presence," (Baran & Correia, 2014, pp. 96-97). Having a support structure at the department, college or university level would allow instructors to have a place to search for available technologies to support their specific pedagogical practices, understand how technology can help them and have support for Learning Management System (LMS) integration and use.

According to research conducted by Bigelow in 2009, studies have shown online course delivery is a suitable substitute to traditional lecture. Some benefits to online course delivery include reaching a larger student population that is more diverse, especially when considering working professionals as lifelong learners. The delivery of material online becomes a benefit to a university and to all types of students. The multiple delivery methods available to faculty also facilitate critical thinking development of students as they are forced to express their thoughts, opinions, and assignments in various written feedback actions and mechanisms (Stedman & Adams, 2014).

From the institutional perspective, maintaining positive student feedback is paramount in continuing a distance education program. As online education continues to grow, more and more faculty are asked to offer their courses in an online format. Depending on the comfort level of the faculty with technology, there is a potential for a support infrastructure to be put in place. When the internet was in its early stages, it was found that faculty required assistance in moving their courses to the online environment (O’Kane & Armstrong, 1997). Three primary factors are central to online student satisfaction: instructor, technology, and interaction (Bollinger and Martindale, 2004).

Positive feedback has been received from students about online courses; with the prime benefits being flexibility in scheduling and the time available for them to review and conceptualize the material in each lesson (O’Malley & McCraw, 1999). The flexibility in scheduling is beneficial for working professionals who are part time students and full-time students trying to balance school, study and work commitments while completing their degree. These positive benefits apply to undergraduate students, masters’ students and PhD

candidates. Student comments about their online experience have provided the most insight into their experiences. The students who had the best experiences expressed that faculty were concerned about them, established relationships, provided structure and flexibility, and communicated well while remaining active and visible during the duration of the course (Young & Duncan, 2014). Instructional designers in concert with the faculty member work to develop student self-efficacy as a result of collaborative activities through the course design process. This in turn causes students to have more positive feelings about the subject and material, increasing their positive experience in the online learning environment (Richey, Klein, & Tracey, 2011).

In general, for all subjects, there is the issue of interaction and a sense of community felt by the students enrolled. The online environment does lend itself to a decreased amount of student-to-student interaction when compared to the traditional face to face lecture (Latour, 2003). To overcome this, active interaction must be maintained during the course by the instructor to reduce the social distance prevalent in the online environment. The design process and use of templates created over time through an iterative process will assist in changing this perception. The faculty member is ultimately the key to increasing the sense of community in a course. Feedback is an instrumental developmental tool for all students in any type of course. Even online faculty need to interact with students through feedback tools regularly and promptly (Murphrey, Arnold, Foster, & Degenhart, 2012). Quality, not necessarily quantity, of feedback and interaction from an instructor in an online environment improved the satisfaction level of students in the course (Burbuagh, Drape, & Westfall-Rudd, 2014).

Theoretical Framework

Adult Learning Theory

At the university level, all learning should be focused on the adult learner (King, 2002). This is important to understand as a faculty member develops their course material but is extremely important when dealing with the creation of professional development offerings for faculty. Professional development offerings cannot be created as lecture-based memorization activities, they must take prior experience and the idea of creating to truly form knowledge into account. Andragogy is the theory related to how adults learn and also considered by many as an approach to reach adult learners (Reischmann, 2004).

At its core, andragogy contains five underlying assumptions used to describe an adult learner. The first is that they are able to direct themselves on a learning path. The second is that the individual has prior experiences to build from. The third assumption is that the learner requires new knowledge as it relates to change around them. The fourth is that the learning will help them in the more immediate future as opposed to years away. The last assumption is that the learner has intrinsic motivation to learn (Merriam, 2001).

Constructionism, a subset of constructivism theory, supports the assumptions of andragogy. Constructionism is based on the idea that the learner is increasing knowledge and consciously engaged through the duration of the learning (Papert & Harel, 1991). Creating content while learning is especially important during the instructional design process as the instructor is learning while also applying what they are learning to the course they are going to redesign. Constructionism follows the construct that learning is an ongoing process and is for everyone.

The implications of constructionism apply well with my study because of its prediction in the use of technology during constructing (Flores, 2016). In this case, internalizing best practices for distance learning delivery while using practices that fit the faculty's pedagogical structure as they are transitioning a course to a distance learning modality.

Each CALS faculty member is a content area expert who may or may not have prior experience with online education when they join the university but are tasked with delivering online instruction in support of the OMALS program. Each faculty member has prior experience which needs to be considered when developing professional development offerings for them. Providing a resource for faculty to follow and learn from allows for the adaptation of the information into specific instances based on each faculty members previous experience. This resource will also allow for each faculty member to compare introspectively their own work and how they are doing in maintaining best practices in producing their own adult learning materials for students. The short-term implications of a provided resource best serve CALS and all of their faculty as continued distance learning expands across all disciplines and subjects.

Training Faculty

Professional development created through the lens of adult learning theory can affect change if it is sustained, is more meaningful if offered in a similar context that it will be used and is beneficial on a larger scale if it helps create a community of learning (Hinson & LaPrairie, 2005). When campus professional development staff facilitated professional development for online instruction, change was seen with faculty who participated in various offerings. The material used by the staff was offered in several modalities to support various instructor delivery methods and availability to complete the professional development. Providing candid

feedback to the facilitators when asked to respond to a survey, instructors stated “they feel more adept at online teaching”, “[the] boot camp helped to guide me to a more systematic approach to my design”, “excellent guidance on course design and structure”, and testimonials such as “I had taught online courses at my previous institution, but this experience was a definite help.” The feedback was received as part of routine feedback requests by professional development staff to continuously improve the offerings delivered to faculty.

Any new technological information for a faculty member must be balanced between their pedagogical beliefs and how to best relate or integrate any technology (Baran & Correia, 2014). With new technology comes new training for a faculty member who wants to develop a product to use as part of a lesson and there is also some user learning which must happen to understand the technology. Fitting training in faculty schedules can be difficult depending on what role they play in their department and university. There would also be additional training on integrating new features into lessons.

Faculty members do need some level of technical training to support course transfer from face-to-face lecture based materials to video based materials (Zirkle, 2004). There is a general concern for the amount of time and effort the course conversion would take. Having a dedicated resource with information and templates would provide faculty with structure and best practices to aid in conversion and/or development. This information is important to have for those who are tech savvy and willing to direct their own learning. There is also some concern about the consistency of course layout and design within programs. The overall concern can be addressed through the use of guidelines, templates and tools. Used together these simplify development, reduce redundancy and promote ease of use by students (O’Kane

& Armstrong, 1997). Templates provide a structure to follow while allowing the instructor to keep the course personalized with what and how they deliver and assess the knowledge and material. Even with identified concerns about time, effort and a resistance to change from traditional delivery methods associated with teaching online, there are also identified reasons for a faculty member to want to teach online. Sammons & Ruth (2007) surmised intrinsic and extrinsic reasons from numerous studies, including wider audience, flexible scheduling, developing new ideas, being intellectually challenged, and personal and professional growth as positive reasons to teach at a distance.

There are some identified preferences for professional development in reviews. Of the multiple sources, the most identifiable include “activities that: (1) they could put immediately to use on a current project; (2) fit into their schedules; (3) included follow-up procedures; (4) were in sync with their learning schedules; (5) were centered around curricula; (6) came with an accessible support person; and (7) were directed by the program chair,” (Baran & Correia, 2014, p.97). Any professional development program must meet the needs of the faculty, support the faculty members, fit into the mission of the college and ultimately through its practice, benefit the students.

Instructional Design Theory

Situated Cognition theory integrates well with the Andragogy adult learning theory and would be influential in the development of a model for faculty at a higher education institution. Broken down into the simplest pieces, the theory states that knowledge is best learned as it is practiced and where it is practiced. Situated cognition refutes the idea that learning and the

learning environment are separate (Brown, Collins, & Duguid, 1989). The general idea of this theory is that a student should apply what they have learned to better inculcate the knowledge into understanding. Modeling a behavior or task to show knowledge or to teach the knowledge is part of the theory's concept as well as the creation of communities of practice with likeminded peers (Brown, Collins, & Duguid, 1989).

Instructional design support has been found to improve the level of interaction between students in online courses (Kelly, 2018) as well as provide the much-needed opportunities for student-faculty interaction. According to Seels & Richey instructional design is “the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning” (1994, p. 1). Instructional design is a systematic, systemic, reflective and iterative process (Larson & Lockee, 2014). Instructional design is a bridge of sorts between disciplines, according to Richey, Klein & Tracey it “is the science and art of creating detailed specifications for the development, evaluation, and maintenance of situations which facilitate learning and performance” (2011, p. 3). The conclusion of the process provides the instructor with an integrated and aligned course plan from course objectives to lesson objectives to lessons to content to assessments.

According to Brierton, Wilson, Kistler, Flowers, & Jones, “Well-designed distance education creates opportunities for students to process course content in a variety of ways,” (2016, p. 14). This implies that either instructors are extremely knowledgeable in course design not only in the traditional sense, but also in online environments, or they have assistance during course development. Instructional designers are the source for current trends in effective online instructional activities, are knowledgeable in current technologies used to

deliver the instructional activities and are able to communicate and interact with the subject matter expert to bring together the technology and the material (Bean, 2014). A reoccurring theme in studies comparing traditional to online instruction delivery methods is the need to include instructional support in the development of the online content (Rivera & Rice, 2002).

As technology increases, there will be more ways to replicate processes thereby increasing the amount and type of content which can be taught online. Jayaratne and Moore remind us that it will always be important to pay “attention to design and delivery of online classes with the latest information technology for creating an instructional environment resembling a classroom situation” (2017, p. 304). This idea is important to address especially concerning those courses and disciplines requiring hands on training, which would apply to a larger number of CTE courses (Zirkle, 2004). With the development of Artificial Intelligence (AI) and Virtual Reality (VR), there is the possibility of incorporating these new technologies into the areas requiring more hands-on training.

Instructional designers can be instrumental in helping faculty with the transition of their course to or development of their course for online learning. A high-quality design ensures alignment from course objectives to the final faculty developed student assessment as part of the last topic (Shattuck, 2014). The design process focused on alignment is both a systematic and reflective process. Systematic in that it does require some parts to be developed before others and reflective in that the pieces are required to fit together and are aligned following the faculty member’s personal preferences as the subject matter expert. Once the course design is articulated and used, its quality can be measured (Shattuck, 2014). Course quality measurement can be completed by any number of widely known rubrics. Maintaining a system

of regular reviews only improves the quality of the materials and instruction, thereby improving the student experience.

Statement of the Problem

In Spring 2020, departments at the university were tasked with determining their own set of standards for faculty to be considered prepared to teach at a distance and comply with vague accreditation body requirements. At date of publication, it remains unknown if any guidelines were provided by the university to the departments or colleges for online instruction preparedness.

Purpose

The purpose of this work was to develop an accessible, online resource that would serve as a point of reference for instructors in CALS to learn from and use as a template and example as they develop and maintain their online classes. With no certainty of guidance or standardization being received in the future, the developed resource would be the college's resource to facilitate faculty professional development covering the topic of being prepared to teach at a distance. The goal of the resource was to provide current best practices to enhance instructors' ability to excel in distance delivery and interaction within and between the faculty, students and materials. Having a standardized resource for faculty development will "engage teachers in instructional inquiry over an extended time," (McConnell, et al., 2013, p. 267) which will allow for the development of communities of learning. Maintaining a professional development program within the college further allows the communities of learning to be focused on similar subject areas which generally will share common goals and interests. This

increases knowledge and academic conversation serving to better faculty and student knowledge and experience. Knowing that current CALS distance learning courses are taught using the University's Learning Management System (LMS), the resource was created within the same LMS to demonstrate use and techniques of the LMS to the instructors in addition to the topical knowledge and templates.

The CALS faculty professional development resource was reviewed by subject matter experts (SME) chosen specifically for their knowledge. The model would provide a framework for the administration to determine which faculty are considered prepared to teach at a distance. If there is no guidance or instruction from the University to outline what must be done by each faculty member, CALS would already have a recommended set of requirements and be ready to say with certainty their faculty are prepared to teach at a distance. Adoption of this model would place CALS at the forefront of preparedness within the university.

Research Questions

The research questions guiding this work were:

1. In what ways does the resource teach faculty how to set up a distance learning course?
2. What skills does the resource provide to assist faculty in maintaining a distance learning course?
3. What knowledge does the resource provide to assist faculty in maintaining a distance learning course?

Methodology

This project used a design and development (Richey & Klein, 2007) method of research to complete the framework resource for CALS faculty professional development. The focus of the resource was limited to instructional design basics combined with best practices shown in use giving examples for faculty to use and adapt as needed to their personal style and the course being taught at a distance. The resource for faculty professional development would be the bridging artifact within CALS to ensure faculty are provided with the necessary knowledge and tools to teach at a distance (Ellis & Levy, 2010). Review through program evaluation (Chen & Chen, 2005) would allow verification that the resource is an implementation solution for the known gap of what information faculty should know to be prepared to teach at a distance within CALS (Hevner, March, Park & Ram, 2004). The CALS resource is a specific case designed as a process, a training module and a reference to assist faculty moving forward in their teaching at a distance career (Rogers & Williams, 2006).

Evaluation of the resource as a viable solution for CALS was completed through content analysis and expert review (Richey and Klein, 2007). Phillips's Five-Level Training Evaluation Model dimensions were used with information collected from virtually conducted interviews (Choudhury & Sharma, 2019) to determine the applicability of the resource. Faculty members participated in the evaluation of the resource providing information on four of the five levels (see Figure 5) based on their experience, knowledge and understanding of teaching at a distance. The faculty asked to participate were divided into two categories: instructors or administrators. All faculty members were asked their opinion(s) on the resource as a professional development offering, their opinion(s) on the resource's usefulness as a reference

for the future, and

any comparisons

they can make

between the

resource as a

professional

development offering

Level	Dimensions	Brief Description
1	Reaction, Satisfaction, & Planned Action	Measures participant's reaction and satisfaction with the training program and participant's plans for action
2	Learning	Measures skills and knowledge gains
3	Application and Implementation	Measures changes in on-the-job application, behaviour change, and implementation.
4	Business Impact	Measures over all business impact
5	Return on Investment (ROI)	Compares the monetary value of the business outcomes with the costs of the training program

Figure 5. Phillip's Five-Level Training Evaluation Model
(Choudhury & Sharma, 2019, p. 8)

and any instruction they may have received prior. Instructors were asked about their reaction and satisfaction, Level 1, about any skills or knowledge gained, Level 2, and if they would make any changes based on the resource, Level 3. Administrators were asked about the implementation of the resource as well as the overall impact the resource could have for programs within CALS, Level 4.

All participating faculty members were invited to access the resource site. Instructors were given access to the site as students to allow for their better evaluation of the resource as a professional develop offering. Administrators were given access to the entire site to gain insight as to how the offering could impact future program administration within CALS. After sending invitations to the site, emails were sent to individual participants with the interview guide for the virtual interview (appendix AA) as well as a survey to determine the best time to conduct the interview. Interviews were planned to be completed within three weeks of resource access being granted.

The virtual interviews were recorded using the Zoom web conference platform to allow for a more conversational atmosphere (Zoom, 2021). Mechanical transcripts were created using

the Zoom software, then each was reviewed manually to correct any errors before the final transcript was sent to each participant for review. Responses were compared across faculty members holistically as well as coded to develop categories and themes to answer the research questions.

Participants

The faculty members were contacted by email to determine their willingness to participate in the project and retrieve information to complete a partial profile. Two administrators were chosen because of their integral parts in CALS distance learning. Two instructors were chosen based on their differing areas of concentration, their current teaching modality, their differing previous backgrounds, and because they have not seen the resource in its earlier iterative stages. Table 1 below provides a profile of the faculty members.

Email requests were sent to each participant individually. The email provided background concerning the nature of the request to include who the researcher is and why their participation was being requested. There was also a very brief introduction provided to inform the participants of what they would be reviewing and the general focus area to review

Table 1: Participant Profile					
Name	Position	Concentration	Years teaching	Years teaching online	Years working at Virginia Tech
Faculty #1	Administrator	CALS Program implementation	30	11	24
Faculty #2	Administrator	OMALS Program implementation	22 (preschool to college)	5	5
Faculty #3	Instructor	Leadership focus	8	6	5
Faculty #4	Instructor	Education focus	10 (5 secondary, 5 university)	5	6 months

from. Even with the provided general focus area, gleaned from their online University profiles, it was expected that their prior experiences and knowledge will influence their review and provide additional information.

Interview guide

The semi-structured interview guide was developed to assist in collecting information supporting the dimensions described in Phillip's Five-Level Training Evaluation Model (Choudhury & Sharma, 2019). The focus of this project is on the first four levels and therefore the first four dimensions. The interview guide for faculty #3 and faculty #4 specifically focused on levels one through three. The interview guide for faculty #1 and faculty #2 specifically focused on level four. The dimension for level five requires additional time and additional study with focus groups. The provided interview guide may prompt discussion from all four faculty interviewed about previous training or experience which relates, compares or differs to their experience reviewing the provided resource. Learning about activated past experiences will only assist in further development of the resource because expanding prior experience is one of the basic adult learning tenets (King, 2002).

Data analysis

All interviews were recorded and upon completion were transcribed. The transcripts were provided to each participant for verification of the information. All interview data was analyzed using an inductive approach (Thomas, 2006). All participant responses were reviewed and analyzed to condense the conversations into categories. The interview guide provided the general limits of the discussion, but specific categories were not finalized until all text was

coded (Thomas, 2006). Iterative categorical review continued to provide additional supportive information from the multiple participants and captured any contradictory opinions. The refined categorical review identified themes and connections between themes from the participant feedback.

Results

Four faculty members were interviewed for the project. Faculty #3 and faculty #4 interviewed taught in different concentrations within the OMALS degree program. Both of these faculty reviewed the resource from the perspective of students enrolled in an informational program. During the interview, both faculty #3 and faculty #4 referenced similarities and differences between the resource and other professional development opportunities they participated in at other universities. Faculty #1 and faculty #2 both have responsibilities related to the OMALS program, one from an overview perspective and the other from a managerial perspective. Faculty #1 and faculty #2 reviewed the resource as site administrators and provided insights based on their perceptions when working with faculty on course development and implementation.

All four interviews were conducted using Zoom (Zoom, 2021). A semi-structured interview guide was sent to participants before their interview to encourage open dialogue and opportunities to elaborate or explain things in a narrative manner (Louise Barriball & While, 1994). Providing each participant with the interview guide prior allowed them to focus their thoughts on questions designed to assist the researcher in answering the project research questions. Having the questions prepared ahead of time not only supported the project overall,

but allowed for cross checking, identification of themes, and determining any linkage between instructor and administrator answers.

Interviews were analyzed using empirical coding, revising the category lists, and pairing down the list to produce three themes (Harding, 2015). These themes were:

1. Potential
2. Repository
3. Pedagogical Knowledge

Theme 1: Potential

“I think the resource will be amazing,” stated faculty #2 during their interview. All participants agreed that the resource could be used by CALS and would provide a substantial and singularly located collection of reference material. Faculty #4 stated that “it aligns with what I have seen before and aligns with what I have taught,” while faculty #3 informed me during the interview that, “I have not seen many things that take so many things and put them into a concise training....I have not seen many things that are kind of all-encompassing like this one is.” Providing a single source of information focused on pedagogical basics only further develops individual instructor strengths and supports individualized improvement while allowing each instructor to keep their personality reflected in the way they teach their courses. Faculty #1 stated “I think it [the resource] can be part of an arsenal that we are trying to do because we have a goal of helping our faculty.” All participants also agreed that further

refinement of the resource would only make it better but should involve faculty to help drive the changes allowing them to be engaged with the creation of a product which in part is theirs.

The faculty shared that the development of a single source resource for CALS will “benefit all faculty within the college, not just the online instructors of OMALS,” (Faculty #1). The framework developed within the resource supports and will complement what the college is already trying to do to support the departments. Incorporating faculty input as part of a future development iteration will assist in developing ownership in the creation of a CALS owned and supported information set for all instructors within the college.

Theme 2: Repository

The two administrators agreed that the resource could further be developed into a robust repository of examples for faculty. The resource would maintain its focus on the pedagogical basics as an entry point knowledge and skills leveler across CALS but would grow with faculty examples being provided. Faculty #4 liked the repository idea as it would “provide them information and then helping their brains, especially if the people are newer to teaching and newer to teaching online.” These examples would be shared with all faculty having access to the resource and more would be added. Faculty #2 illustrated the importance of having the materials available by stating “any brand-new faculty now has something to look at when they are just handed a pile and told to figure it out.” The adding of working examples would further engage faculty members in discussion as a community of practice helping each other better themselves and their skill sets. Faculty #1 illustrated this idea by stating “one aspect for us [CALS] is that they [faculty] like sharing ideas, they like hearing from others and then they like

practicing those ideas.” The development of the reference side of the resource also brought about the potential limitation in reference to the upkeep and maintenance of the resource, mentioned by both faculty #1 and faculty #2.

Theme 3: Pedagogical Knowledge

Faculty #1 summarized this theme the best by saying “when I see a professional tool like this, this is all about being successful,” because it was created around base knowledge and skills. Faculty #3 and faculty #4 felt there was a substantial amount of information being provided to them as students in the resource but also enjoyed the freedom to spend as much time as they needed within each subject area. They felt it played to an individual’s strengths while allowing for development of other areas identified through self-reflection. The learning checks were also helpful as they were focused on informational basics and not specifics to the university LMS. “Someone who’s new to the university or new to a teaching role, they are going to need this. They need to do this. This is like boot camp 101,” (faculty #3).

Through initial survey information of the participants, the researcher knew about the number of years of teaching experience but did not know where it occurred in its entirety. Both faculty #3 and faculty #4 had experience at institutions with more prevalent and established university level online programs and support structures. As the resource developer it was extremely beneficial to hear that the material provided in the resource was not only informational, but that it also was aimed at the correct level for both novice and experienced higher education faculty. When asking the faculty #3 and faculty #4 if they learned anything new or had any previous education reinforced, they both said they did. The pieces were not

necessarily new but were brought back to the forefront of their thoughts as they prepared for the next semester of courses. They also stated that some pedagogical basics were reinforced as they prepared courses from other faculty. Faculty #3 stated that “it’s going to help me go back and review the ones I have and make me want to think through more about what exactly I want my students to achieve by taking the class” when the interview discussed skills and knowledge, specifically learning objectives.

Discussion

Pedagogical knowledge is foundational to teaching (Guerriero, 2014). Personalization is key to communicating and sharing skills and knowledge during student-instructor interaction. Having a reference source and examples are important when a new instructor is just beginning or when a seasoned instructor is working in a new subject area or filling in at the last minute for a fellow instructor as noted in Theme 2: Repository. Every instructor has their own way of setting up the course they are teaching, but it is always good to have some examples to pull ideas from or a known place to reference basics when suddenly confronted with a change or a severe time crunch. Having a community of instructors to share ideas and ask questions of would provide a support system to any instructor at any time in their teaching career and supports SACSCOC guidelines (2000).

This personalization of the project resource is important, as stated by faculty #2, to keep the college faculty engaged and supportive of the resource (Shattuck, 2014). This not only keeps interest in adding to the examples available but allows for a person to talk to another about a particular example. Having it all be from the same college sets the precedent that

examples were well developed and most likely have been used in the delivery of one course.

Both administrator participants believed the resource should be a living document for the faculty to use as a repository to share works, a reference to recall information and a basis to further develop the community of practice discussions which happen throughout CALS already. Having a single place to locate information on pedagogical knowledge and examples would provide an instructor with the knowledge and skills to build and deliver a distance learning course, or any other modality.

What knowledge does the resource provide to assist faculty in maintaining a distance learning course?

The pedagogical knowledge discussed in Theme 3 is one of the first steps to ensure a distance learning course is developed properly and aligned to provide the maximum benefit to the students. Maintaining a distance learning course is important especially as an instructor updates resources and adjusts knowledge and skills as they develop over time in practice outside of the classroom. Understanding how the material is laid out and structured in the course is key to scaffolding learning from basic to complex topics. The resource would provide a place to review information on basic pedagogical knowledge, look at examples for material development and a location to focus a community of practice within the college (Baran & Correia, 2014).

The knowledge provided by the resource in its initial concept as an administrative tool could be pertinent to instructors within CALS. Faculty #3 and faculty #4 also confirmed that the knowledge provided benefited them as distance learning instructors even with their

educational and online professional development backgrounds. The administrator participants pointed out that the knowledge contained within the resource focused on the basics of pedagogy and applies to teaching in a variety of environments, not just distance learning. The LMS platform agnostic knowledge contained in the resource could assist faculty in maintaining their courses as referenced by faculty #3 and faculty #4 stating they were going to relook alignment and objectives, respectively, during the interviews.

What skills does the resource provide to assist faculty in maintaining a distance learning course?

The interviews with faculty #3 and faculty #4 focused on alignment as the primary skill that stuck with them from reviewing the resource. However, both stated that the resource was comprehensive and robust with material that was structured well and built upon itself in a logical framework. Alignment was the first topic covered in the resource, but is an umbrella type topic and incorporates all the other topics in general. Faculty #1 stated, “the resource provided basic pedagogical skills that are important for all instructors regardless of what type of classroom they deliver content in.” The resource may not provide new skills to all instructors, especially if they have educational or pedagogical training, but it could provide skills which do need refreshment or review for any instructor.

Developing a centralized location for basic pedagogical knowledge and skills is key to enhancing the student experience, summarized in both Theme 2: Repository and Theme 3: Pedagogical Knowledge. Instructors with a better developed understanding of the basic skills know how to deliver material to students in a more logical, scaffolded format. Instructors are

also better able to assess the learning of the students and challenge students to critically think. Students who learn in an environment which is aligned properly and continuously builds upon knowledge and skill sets are more likely to retain knowledge farther in the future because of the critical thinking involved in the assessments (O'Malley & McCraw, 1999).

In what ways does the resource teach faculty how to set up a distance learning course?

The resource was developed to focus on course structure in general with alignment being the first topic because it is the overarching idea to ensure an instructor expresses what they expect a student to learn, what they want a student to learn, what material they are going to use to allow the student to learn and finally what assessment then measures if a student has learned what they want them to learn. The topics following alignment go into greater detail of known pedagogical constructs used across instructional and delivery modes. There were examples provided in the resource, noted by all interview participants, which are guides to assist in the development or refinement of a course with each topic fitting into the alignment of course development. As noted by faculty #1, the resource provided a template for distance learning course development, but also contained sound pedagogical content to support other delivery methods. The resource is an example of the number one preference of faculty for professional development as stated by Baran & Correia (2014), it is an activity "they could put immediately to use on a current project." The resource was developed along the lines of a distance learning course to provide similar context to other courses (Hinson & LaPrairie, 2005).

Recommendations

Researcher

A revision to add a section to the resource containing information sources for different topics is needed. This list could include websites and documents and would best be separated by topic to make it easier to find specific topical information. This would provide enough information to allow for a soft handover of the resource from the researcher. As the resource developer, the discussions on it also being a repository led to a further recommendation on development of a definitive layout to incorporate the examples seamlessly within a topic as opposed to just a jumbled mess at the end. Also, further research could be conducted if the resource is adopted looking at what is viewed, what is used, what is not viewed, and what is not used by whom and if any correlation can be made with spot comments to assist individuals with continued growth and development or to exhibit positive influence of the resource on instructors and courses.

As a researcher and resource developer, an instructional designer would be the recommendation as to who could maintain the resource, which also addresses the concern raised by faculty #1 and faculty #2 of who would be responsible for resource upkeep. Instructional designers are knowledgeable in pedagogy and work with faculty in a support role to develop content, curriculum and provide assistance with technology. An instructional designer would be able to keep up with best practices and maintain the resource within the LMS, providing examples of the technology in use. This individual would also be able to work

with faculty as they develop course materials and authentic assessments to maintain overall alignment and increase all types of interaction.

Practitioner

Faculty #3 and faculty #4 pointed out that the material being provided would need some revision to support various learner learning styles. While attempts were made during development to accommodate as many as possible, every new viewer provided valuable insight and suggestions. Inclusion of video to support the text and chunking of the text to support conceptual comprehension would offer a solution to the recommendation. Inclusion of more examples, both good and bad, for topics such as learning objectives could be helpful to see the difference and to assist new instructors with no instructional background or training. Additionally, chunking of the information in various ways would provide more topical information in a separate location for review later if desired.

Limitations

The largest concern with the resource was brought up by the interviewed administrators: who will maintain the resource? The resource would need to be maintained by an individual whom faculty could reach out to with questions as they arise, not only with the content within the resource, but an individual who maintains the knowledge stored within the repository. This individual potentially would have the skill sets to maintain the resource with updated best practice information, pertinent pedagogical information to support faculty, an understanding of the resource to build it into a shared repository and have a knowledge base to support faculty in development of their courses.

Limitations with the resource itself include its development by one individual, a small sample size for the review group, and regular updates or lack thereof in regards to fast paced technological changes and updates during the overall project timeframe. The creativity of a small group of stakeholders in the development of the resource would have provided beneficial contributions and a sense of ownership from a few faculty. The review group was a very small size compared to the number of instructors within CALS but larger when compared to the number of individuals who work in administrator roles. Developing the resource and working on the project, the researcher was hampered in the ability to also maintain the resource with regular updates.

Faculty #3 and faculty #4 recommended that further revision iterations of the resource would enhance the delivery of the material by having the information presented in various forms, videos and text for example. Also, adding additional examples of the material being covered, both good and bad, would be helpful for other instructors completing the resource. Both of these processes require time for an individual to make the updates and revisions. Until revisions such as these are completed there could be some instructors with identified disabilities who may have some difficulty in processing the information provided.

A final limitation of the resource in its current state is that it was built with an instructor's intrinsic motivation to want to continue learning. There was no extrinsic motivation developed for completion. It could be helpful to provide extrinsic reward to help motivate an instructor fit the time required to complete the resource into their normally busy schedule. Adding an electronic badge or certificate is feasible, but also requires time.

Conclusion

The resource provides basic pedagogical content packed in a well-structured manner. In its current state, the resource could be a valuable asset to CALS to support faculty professional development both personally and for course materials. The current structure within the resource could be improved through faculty engagement with the developer/maintainer. This engagement and interaction would further promote the development of communities of practice within different instructor groups and increase the sharing of ideas. This sharing would also promote the sharing of examples which would develop the resource into a usable repository of faculty created examples. The sharing of examples among the communities of practice would further increase communication and the sharing of ideas, making courses and instruction better for all students.

The resource could be used to bridge the gap in the professional development required by accreditation bodies and the limited opportunities currently available at the university level. With the vague description outlined of what training is in SACSCOC, SCHEV and NC-SARA, the resource would provide the training needed for instructors to be prepared and supported as stated in the C-RAC Interregional Guidelines for the Evaluation of Distance Education Programs (2011). Adoption of the resource and its continued evolution with examples and best practices would support the SACSCOC Resource Manual for the Principles of Accreditation: Foundations for Quality Enhancement (2018) where it states faculty are lifelong learners who maintain currency and relevance through continued learning of best practices as they emerge. The resource can be viewed at: <https://canvas.vt.edu/courses/133138>.

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Appendix AA

Interview/guiding prompts for participants

Research Questions

Interview questions for instructors:

1. Please describe your thoughts on the content provided
 - a. Was the content pertinent
 - b. Was the content clear and concise
 - c. Was the content focused at the appropriate level
2. Please provide some thoughts on skills associated with the resource
 - a. What skills were new to you after completing the resource
 - b. What skills were reinforced from prior experience
 - c. What skills do you feel were missing from the resource
3. Please provide some thoughts on specific knowledge items associated with the resource
 - a. What knowledge was new to you after completing the resource
 - b. What knowledge was reinforced by the resource
 - c. What elements were missing from the resource
4. Did the resource inspire or inform you to make any changes to the courses you teach at a distance? If yes, what specifically.

Interview questions for administrators:

1. What opinion(s) would you like to share about the resource as a tool for online instructors?
2. What thoughts or opinions would you like to share about the overall impact the resource could have for CALS?
3. What impressions would you like to share about the possibility of CALS using the resource?

Interview questions for everyone:

1. What opinion(s) would you like to share about the resource as a professional development offering?
2. What opinion(s) would you like to share about the resource's usefulness as a reference for the future?
3. What comparisons can you make between the resource as a professional development offering and any other teaching at a distance instruction you may have received?

Appendix BB

Resource Screenshots

1. Home page

[Home](#)
[Announcements](#)
[Modules](#)
[Grades](#)
[Assignments](#)
[SCORM](#)
[VT Library Help](#)
[Chat](#)
[Google Drive](#)
[Pages](#)
[Outcomes](#)
[Quizzes](#)
[People](#)
[Discussions](#)
[Syllabus](#)
[Files](#)
[Collaborations](#)
[Rubrics](#)
[My Media \(Personal\)](#)
[Media Gallery \(Course\)](#)
[Accessibility report](#)
[UDOIT](#)
[Settings](#)

Recent Announcements

CALS Professional Development

Edit

Welcome to the CALs Faculty Professional Development Resource!

This resource is designed to provide common information about instructional design basics in preparing to teach in an online environment. It was developed to show best practices in use while also describing them providing a visual representation of the information. There are some questions built in to illustrate assessments and use of some tools within the LMS. The best practices are gathered as references for you to assist in providing students with the best experience possible.

There are templates available as part of this resource. They are for you to use as you wish and to change however you deem necessary to support your individualization of course material delivery.

Following along with this resource develops a community of learning. The more people who "speak the same language" when it comes to teaching at a distance will only improve everyone in the learning community. Helping each other is key to individual development.

If you have any questions about the course, please visit the [General Questions and Concerns forum](#), and you'll typically receive a response within one business day.

Thank you for joining us!

Please visit the [Getting Started Module](#) to begin.

QuickLinks

- [Modules](#)
- [Quality Assurance Resources](#)
- [Course Technology Information](#)

Resource Objectives:

Upon completion of this course, participants should be able to:

1. Explore the issues and challenges of teaching online in general, and in their specific discipline, through discussion and the sharing of resources and personal experience
2. Differentiate between goals and objectives, between course-level and lesson/lesson-level objectives, and between learning activities and assessments in the construction of a syllabus and planning documents for their course
3. Develop measurable course-level objectives that inform measurable lesson-level objectives
4. Construct an assessment plan that measures learning objectives which are aligned with content and learning activities, and which is manageable for their online course.
5. Compose a summary of the norms, guidelines, expectations, and communication for classroom management in their online course.
6. Identify the elements and characteristics of high-quality, media rich, student-centered and interactive online courses
7. Demonstrate proven strategies and best practices in the development of a high quality, online courses
8. Evaluate the quality of online course elements for their own and other courses using the quality assurance rubric

Instructor Contact Info

Instructor: Matthew Louvet, OMALS candidate

If the answer to your question may help your peers as well, please consider asking it publicly (if appropriate) in the General Questions & Concerns forums.

- For questions generally related to the course but not to a specific module, use the [General Questions & Concerns forum](#).
- For questions you'd rather not ask in the forum, please feel free to email or call.
- I am also happy to schedule an appointment with you in-person or via Zoom.

Email: mattl06@vt.edu

Phone: (540) 231-4772

This course site was reviewed with the Canvas Accessibility checker and found to be 95% compliant as of May 9th, 2021.

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2. Getting started overview

Getting Started Overview



Welcome...

Welcome to the CALS faculty professional development resource and by default, welcome to the CALS preparing to teach at a distance community of learning.

My name is Matt Louvet, and I'm the facilitator for this resource and an OMALS candidate. I come from a hard science and military background, in which you're always deciphering the "who, what, where, when, why, and how" of any situation. So here's that vital information.

Who:

...are you? This resource is for:

1. Any CALS faculty who are teaching at a distance.
2. Any CALS faculty who are preparing to teach at a distance.
3. Any CALS faculty who just want to learn about teaching at a distance.

What:

The resource is a single source reference designed to facilitate professional development. It is created to display and explain instructional design basics through words and examples.

Why:

With CALS being responsible for developing its own standards of verifying faculty as prepared to teach at a distance this resource provides common language and reference for all CALS faculty to be prepared.

How:

Successfully complete the first section covering [designing for distance education review](#) which is self paced and has 5 separate parts.

The second section consists of templates available for your use.

Everything is located in the [modules](#) tool. Each of the five concept review modules follow the same layout. First will be a page to review followed by a graded review. Then, depending on score, either additional information will be available followed by a second graded review or the next concept will be made available. Your second graded review may be attempted as many times as required to gain access to the next part.

When:

This resource will always be available to you.

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3. What to expect

What to Expect ▲

Following this page is an interactive video created by Instructional Designers working as part of Learning Experience Design (LED) a part of Technology-enhanced Learning and Online Strategies (TLOS). There are questions embedded within the video and must be answered to continue the video. Your completion of this interactive video is not required; however, most participants have found it to be extremely useful.

At the end of the video, there is a message to click on the Next button. For you participating in this course, that is the end of the video and if you opened it in a new window, please close it and return to the course.

If you decide you do not wish to view the interactive video and want to dive right in, you can get to the first section by using the modules tool on the left or simply enter [Objectives-Designing for Distance Education Review](#) now.

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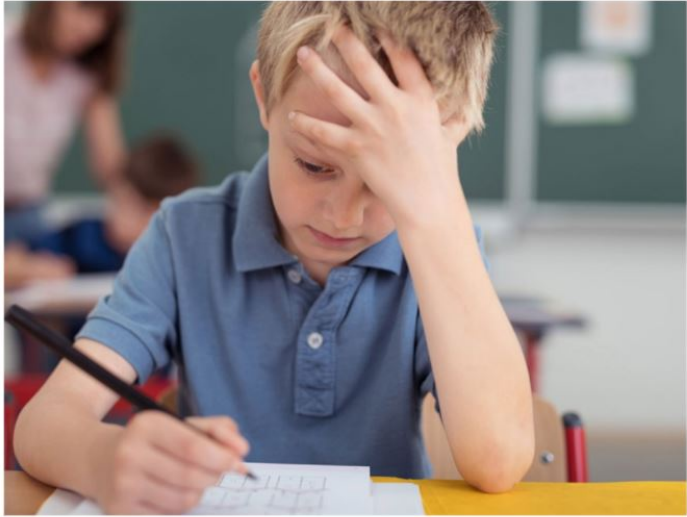
4. Alignment


LED Alignment



[Edit Assignment Settings](#)[SpeedGrader™](#)

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LED Alignment

 **Learning Experience Design (LED)**
Technology-enhanced Learning & Online Strategies - A Unit of the Division of IT



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5. Complete list of modules

▸ Getting started		✓ + ⋮
▸ Objectives - Designing for Distance Education Review		✓ + ⋮
▸ Assessments - Designing for Distance Education Review	Prerequisites: Objectives - Designing for Distance Education Review	✓ + ⋮
▸ Lesson Layout Design - Designing for Distance Education Review	Prerequisites: Assessments - Designing for Distance Education Review	✓ + ⋮
▸ Materials - Designing for Distance Education Review	Prerequisites: Lesson Layout Design - Designing for Distance Education Review	✓ + ⋮
▸ Managing the Environment - Designing for Distance Education Review	Prerequisites: Materials - Designing for Distance Education Review	✓ + ⋮
▸ General Information - Technology		✓ + ⋮
▸ Templates		⊘ + ⋮
▸ Quality Assurance Resources		✓ + ⋮
▸ Foundational evidence		⊘ + ⋮

6. Expanded content modules

...	Objectives - Designing for Distance Education Review	✓	+	...
...	Objective Writing Review Material	✓		...
...	Objective Writing 6 pts	✓		...
...	Overview of Writing Objectives	✓		...
...	Objective #2 6 pts	✓		...

...	Assessments - Designing for Distance Education Review	Prerequisites: Objectives - Designing for Distance Education Review	✓	+	...
...	Assessment Review Material		✓		...
...	Assessments 7 pts		✓		...
...	Assessments - Overview		✓		...
...	Assessments #2 7 pts		✓		...

...	Lesson Layout Design - Designing for Distance Education Review	Prerequisites: Assessments - Designing for Distance Education Review	✓	+	...
...	Lesson Layout Design Review Material		✓		...
...	Lesson Layout Design 5 pts		✓		...
...	Lesson Layout Design - Overview		✓		...
...	Lesson Layout Design #2 5 pts		✓		...

...	Materials - Designing for Distance Education Review	Prerequisites: Lesson Layout Design - Designing for Distance Education Review	✓	+	...
...	Materials Review Material		✓		...
...	Materials 6 pts		✓		...
...	Materials - Overview		✓		...
...	Materials #2 6 pts		✓		...

...	Managing the Environment - Designing for Distance Education Review	Prerequisites: Materials - Designing for Distance Education Review	✓	+	...
...	Overview Online Environment Review Material		✓		...
...	Strategies Online Environment Review Material		✓		...
...	Overview Connected Classroom Environment Review Material		✓		...
...	Content Design & Delivery Connected Classroom Environment Review Material		✓		...
...	Assessments Connected Classroom Environment Review Material		✓		...
...	Fostering Effective Communication Connected Classroom Environment Review Material		✓		...
...	Group Work Connected Classroom Environment Review Material		✓		...
...	Managing the Environment 5 pts		✓		...
...	Online Environment - Overview		✓		...
...	Online Environment - Strategies		✓		...
...	Connected Classroom Environment - Overview		✓		...
...	CC Content Design & Delivery		✓		...
...	Managing the Environment #2 5 pts		✓		...

7. Example module overview

Objective Writing Review Material ↗

Warm-up

I mean really...why do we need learning objectives, anyway? Aren't they just a formality?

Well, no. For you, they lay the foundation of what you're going to do with your students and how you're going to do it. They serve as concrete markers of how you're going to get students from their current state all the way to your pie-in-the-sky course goals. But perhaps just as importantly, learning objectives serve an important function in regards to communicating with your students. Written well, learning objectives leave little question about what you expect of your students in each lesson and in the course as a whole.

Lesson Objectives

- Differentiate between wording for goals vs. objectives
- Create measurable course-level objectives
- Begin to formulate assessments that align with stated objectives

Materials & Activities

Frameworks for Writing Objectives

It may seem like writing objectives can be difficult, there are a couple of underlying frameworks you can use to simplify the process. Two frameworks are described below. Use the one that makes the most sense to you.

If you're familiar with SMART goal-setting, you can apply the same to writing objectives. As a refresher, [SMART objectives](#) will be **Specific, Measurable, Achievable, Relevant, and Time-bound**. To simplify it even further, if you write the phrase, "By the end of this [course/module/lesson], students should be able to..." above each grouping of objectives, then you've already satisfied the Time component without even having to build it in to each objective.

Another framework that many find even easier to use is the ABCD method, which accomplishes essentially the same thing as SMART. Each objective should include **Audience, Behavior, Condition and Degree** - if you include each of these components, you're taking care of the Specific, Measurable, and Time components of "SMART" - the Achievable and Relevant parts are always up to you anyway! Again, if you include the same preceding phrase as above prior to each set of objectives, whether at the course level or the lesson level, you've already achieved the Audience and Condition parts before you even write the objectives - all you have to worry about is the Behavior you want to see and the Degree to which you expect students to perform it.

Finally, though we have to split up the different parts of alignment in order to deliver it in reasonable chunks, you should be thinking about your assessments as you write your objectives, and vice-versa. As you write each objective, think about how you're going to assess it.

Will you be using multiple-choice questions? If so, go with behaviors such as "Identify" or "Select" as your objective verb. Students can't truly "describe" or "evaluate" a topic or concept by selecting a multiple-choice answer, so to attempt to assess their ability to describe or evaluate something via a multiple-choice quiz would be an example of faulty alignment between objectives and assessments.

Course-level Objectives (CLO)

Remember, from the Alignment Module, that Goals are "states of being," and we put little to no restriction on what the goals of your course should be. Anything is fair game. If you need help thinking of some goals, my advice is to think about what 3-5 pieces of this course, or main ideas of it, that you want your students to still have with them five years down the road. Those are your goals!

Once you have figured out your goals, then the Alignment process has begun...now just think of a few things for each of those goals that students can do to indicate to you that they've achieved the goals, and these are your **objectives**. Depending upon the level of your students, it may be enough for them to just memorize enough terms to help them get by in their field of study, or they may need to be able to present advanced topics professionally, which requires both content knowledge and presentation skills. Regardless of which end of the spectrum you're on, select objectives that are **performance-based** (i.e. something students must DO) and **measurable** (which allows you to determine their level of achievement of those specific objectives).

Lesson-level Objectives (LLO)

Though we won't immediately require a submission including these (Lesson Objectives will play more heavily into your Lesson Plan a few weeks from now), we should note that objectives at the lesson level are just as important as objectives at the course level. They can also help you bridge the gap between activities and formative assessments that you have students perform in a given lesson, and the course objectives.

If you'd like to see this in action, check out this ~4 minute video, that demonstrates how to distill goals down to course objectives, and then take them down one more level to the lesson.

[Creating Lesson Objectives](#)



This may sound daunting, but fear not - this is where our friend Benjamin Bloom can help, via Bloom's Taxonomy.

Bloom's Taxonomy

If you weren't already familiar with [Bloom's Taxonomy](#), for the most part, it's simply a hierarchy of six levels of cognitive complexity. On the lower end, you have *remembering* and *comprehending*, which just means that a student "gets" the content. No more, no less. On the higher end, you have *creating* and *synthesizing*, which involves the student being able to actually create artifacts with the knowledge they've gained, or represent certain pieces of content in relation to others, with comprehension of comparative strengths/weaknesses, similarities/differences, etc. In summary, learning objectives aimed at Bloom's higher levels will require more cognitive ability from the students.

There is nothing wrong with a PhD-level course containing a few lower-level objectives, especially at the lesson level (as attainment of lower-level objectives can often feed into the ability to achieve higher-level objectives by the end of the course). Conversely, it's fine for lower-level courses to ask students to *create*, *synthesize*, or *evaluate*. But as a general rule, lower-level courses may tend to skew more toward lower-level objectives, while more advanced courses should have more advanced requirements of their students.

The above material focuses on the Cognitive learning domain, but some of you may want to incorporate some Affective objectives (i.e. that the student *appreciates* or *values* certain things appropriately) and/or Psychomotor objectives (i.e. that they can execute certain tasks appropriately). Never fear...here's a [helpful resource from Emporia State](#) about the different levels and verbiage associated with those domains.

Finally, there are some helpful resources out there that can help you line up your Objective verbiage with Bloom's various levels. Each of the verbs [in this external Bloom resource page](#) is both measurable and can be easily associated with the different levels. Note that, while it's nice if you know which level your objectives match, it's more important that your objectives are written in a clear and measurable fashion, and that they're truly being assessed by the assessments you choose. So use resources like this up front as you plan the big-picture stuff, but then focus more on the measurability and alignment pieces as you proceed!

[Submission information/link on next page]

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8. Example module learning check

Objective Writing [⚡]

The following review questions are all concentrated on the course design for distance learning topic of objectives. For this initial topic review, you will only have one opportunity to take this particular assignment. To achieve mastery you must successfully and correctly complete at least 5 of the 6 questions. There are a mix of True/False, multiple choice, and select multiple answers type questions.

If, by chance, you do not achieve at least 5 out of 6 correct, please take a minute to review your answers. Hover over the Next button before clicking it. Please make sure there is no message about refreshing before clicking. After clicking, you will be directed to a page of review material and a subsequent second review on the topic.

Quiz Type	Graded Quiz
Points	6
Assignment Group	Assignments
Shuffle Answers	Yes
Time Limit	No Time Limit
Multiple Attempts	No
View Responses	Always
Show Correct Answers	Immediately
One Question at a Time	No
Require Respondus LockDown Browser	No
Required to View Quiz Results	No
Webcam Required	No

Due	For	Available from	Until
-	Everyone	-	-

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9. Example module learning check with directions and questions

Objective Writing ^8

ⓘ This is a preview of the published version of the quiz

Started: May 11 at 1:44pm

Quiz Instructions

The following review questions are all concentrated on the course design for distance learning topic of objectives. For this initial topic review, you will only have one opportunity to take this particular assignment. To achieve mastery you must successfully and correctly complete at least 5 of the 6 questions. There are a mix of True/False, multiple choice, and select multiple answers type questions.

If, by chance, you do not achieve at least 5 out of 6 correct, please take a minute to review your answers. Hover over the Next button before clicking it. Please make sure there is no message about refreshing before clicking. After clicking, you will be directed to a page of review material and a subsequent second review on the topic.

- ☐ **Question 1** 1 pts
- What helps the educator bridge the gap between activities and the course objectives?

 - ☐ course level objectives
 - ☐ course level goals
 - ☐ lesson level objectives
 - ☐ lesson level goals
- ☐ **Question 2** 1 pts
- Choose all correct answers:

When written correctly, these detail what will be learned, help structure the course, and guide development of assessment.

 - ☐ course level objectives
 - ☐ goals
 - ☐ none of the answer choices
 - ☐ lesson level objectives
- ☐ **Question 3** 1 pts
- Objectives are written to provide learners expectations_____

 - ☐ in each lesson
 - ☐ for each lesson and for the course as a whole
 - ☐ in the course
 - ☐ in the syllabus
- ☐ **Question 4** 1 pts
- Objectives are _____ and _____.

 - ☐ pointless, extra work
 - ☐ a state of being, measurable
 - ☐ memorized, regurgitated
 - ☐ performance-based, measurable
- ☐ **Question 5** 1 pts
- When designing your course, goals and objectives are the same.

 - ☐ True
 - ☐ False
- ☐ **Question 6** 1 pts
- Objectives are meant to be stepping stones where the course level objectives are subsets of lesson level objectives.

 - ☐ True
 - ☐ False