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# **OVERVIEW**

There are a growing number of students that enroll in online courses, with the percentage of students with disabilities higher in online courses than on-ground courses. It is therefore imperative that online courses are designed in a way that makes content accessible to all learners. Accessibility not only ensures that the University of Central Florida (UCF) meets the legal requirements of the Americans with Disabilities Act (ADA) but it also fosters student success. One way that UCF is working to meet accessibility standards and expectations is by providing a course to all mixed mode and online instructors, Universal Design for Learning Online (UDL Online). IDL 6453 is an award-winning, non-credit course for faculty provided by UCF's Center for Distributed Learning (CDL). UDL Online models how to teach online using a combination of seminars, labs, consultations, and web-based instruction and is delivered in a mixed mode. CDL would like to provide graduates with additional instruction that focus on Universal Design for Learning (UDL).

As stated on the UDL web site, UDL "is a set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone - not a single, one-size-fits-all solution, but rather flexible approaches that can be customized and adjusted for individual needs." UDL will help address concerns of accessibility for online courses. By providing a course on UDL, instructors will be given further strategies on how to adapt their course for a diverse student body. The UDL course will allow faculty to critically analyze and revise their courses so that they are accessible to all students and aid in student success in courses.

The following Analysis Report outlines a goal analysis for a unit of Universal Design for Learning Online, or UDL Online, as a branch of the IDL6543 course, a subordinate skills analysis for the Identifying Strategies to Provide Multiple Means of Engagement instructional unit, and a learner and context analysis.

#### **GOAL ANALYSIS**

As seen below in Figure 1, the goal of IDL6543 is to educate existing UCF faculty on the basic concepts of Universal Design for Learning (UDL) which shall be applied to their mixed-mode or web-based courses. The students of this course begin with exploring the rationales and principles of UDL leading to the identification of strategies that provide means of representation, action and expression, and engagement. These strategies will be applied during curriculum development of instructional goals, methods, materials, and assessments in order to give all individuals equal opportunities to learn. Finally, students will understand and utilize the range of support services offered through UCF for creating accessible materials using the UDL principles.

The goal statement was identified by Dr. Chen and the subject matter experts (SME's) for this course, Kathleen Bastedo and Nancy Swenson of the Center for Distributed Learning. It states that:

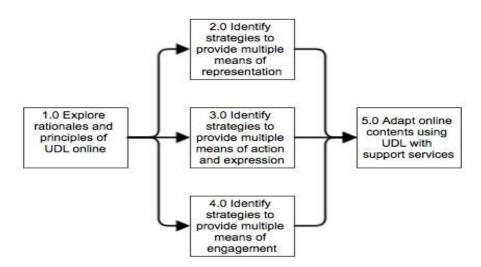
Given relevant principles and resources, IDL6543 participants and IDL6543 certified instructors will recognize the basics of universal design for learning (UDL) and apply these principles in their online course.

The statement was classified as a problem solving statement based on Gagne's taxonomy.

The goal analysis identifies five major steps needed in order for a student to successfully carry out the goal statement. The subsequent sections of this analysis report will focus on Step 4.0: Identify strategies to provide multiple means of engagement.

Figure 1. Goal Statement & Goal Analysis Diagram

Course Goal: Given relevant principles and resources, <a href="IDL6543">IDL6543</a> participants and <a href="IDL6543">IDL6543</a> certified instructors will recognize the basics of universal design for learning (UDL) and apply these principles in their online course. (Intellectual: problem solving)



#### SUBORDINATE SKILLS ANALYSIS

Figure 2 provides a visual representation of the subordinate skills associated with step 4.0 of IDL6543 as the focus for a unit of Universal Design for Learning Online, or UDL Online. As the diagram shows, there are three substeps to step 4.0. These substeps include classifying options to recruit interest, sustain effort and provide options for self-regulation. The subsets then have at least three subordinate skills assigned to each substep skill. This information has been delivered in a hierarchal arrangement with each set of subordinate skills leading to the subset skill and each subset skill leading to step 4.0.

In order for the learner to classify options for recruiting interest, they must be able to identify strategies that provide individual choices for autonomy, identify strategies to provide relevance, value, and authenticity, and then identify strategies that will minimize threats and distractions. After the learner can accomplish the subordinate skills in 4.1, they will then be able to move onto 4.2, Classifying options for sustaining effort.

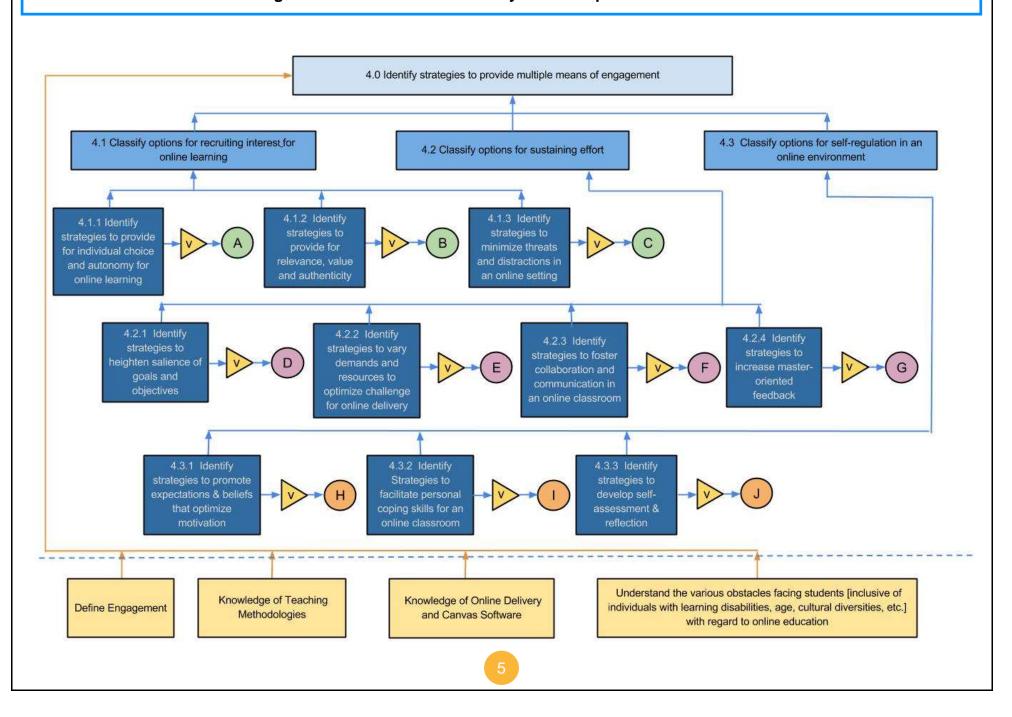
For learners to the classify options for sustaining effort, they must: identify strategies that heighten salience of goals and objectives, vary demands and resources to optimize challenge, foster collaboration and communication, and increase master-oriented feedback. Once the subordinate skills of 4.2 are acquired, the learner can then move onto Step 4.3, Classifying options for self-regulation.

To classify options for self-regulations, the learner must first identify strategies that will promote expectations and beliefs that optimize motivation, develop self-assessment and reflections, and facilitate personal coping skills. After achieving the knowledge of these subordinate skills, the learner will then have achieved the goal set forth by 4.0.

Also, it should be noted that there are verbal skills associated with the subordinate skills noted with triangles with the letter "v" and circles with letters inside. The letters are to identify the verbal skills in Figures 3, 4, and 5.

Moreover, there are some entry level skills associated with the subordinate skills within step 4.0. These entry level skills are noted on Figure 2 below the dashed line in the diagram. If a learner will be participating in the UDL Online course, they must be able to define engagement, have knowledge in teaching methodologies, online and mixed mode delivery and Canvas software, and have a basic knowledge of the students associated with the UDL principles as they correlate to 4.0 in Figure 1. The students that are the focus of UDL system include those facing obstacles with online delivery, students with learning disabilities, and students with a range of various ages and cultural backgrounds. As a result, it would a basic understanding of this concept would be necessary for the success of the goals and objectives. Furthermore, these entry level skills were connected to their subordinate skills by means of orange connector as to not confuse the reader with the connections between the subskills and subordinate skills and will be further discussed in the learner analysis.

Figure 2. Subordinate Skills Analysis for Step 4.0 of UDL Online



# Figure 3 Verbal Information for Step 4.1.1, Step 4.1.2, and Step 4.1.3



Defining strategies to provide for individual choice and autonomy for online learning

- Allow participation in design of classroom activities
- Involve learners in setting their own personal academic and behavioral goals
- → Provide learners with choices in level of perceived challenge, type of rewards, tools used for information gathering, or sequence or timing for completion of tasks

Step 4.1.1



Defining strategies to provide for relevance, value and authenticity

- → Vary activities that are personalized to learners' lives, Culturally & socially relevant, and appropriate for various ages, races, ethnicities, and genders
- Design activities with learning outcomes that are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- → Provide tasks that allow for active participation, exploration and experimentation
- Invite personal response, evaluation and self-reflection to content and activities
- → Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

Step 4.1.2



Defining strategies to minimize threats and distractions in an online setting

- focus attention on having basic needs met
- avoid negative experience
- → Create an accepting and supportive classroom climate
- → Vary the level of novelty or risk
- → Vary the level of sensory stimulation
- Involve all participants in whole class discussions
- → Vary the social demands required for learning or performance

Step 4.1.3

# Figure 4 Verbal Information for Step 4.2.1, Step 4.2.2, and Step 4.2.3, Step 4.2.4



Define strategies to heighten salience of goals and objectives

- learners must formulate and restate goals in multiple ways
- display both longterm and short-term goals
- utilize hand-held and/or computerbased scheduling devices
- Prompt or require learners to restate goals
- → Implement prompts or scaffolds for visualizing desired outcomes
- engage learner in discussion that foster relevant connections to their cultural backgrounds

Step 4.2.1



Define strategies to vary demands and resources to optimize challenge for online delivery

- → Differentiate levels of difficulty amongst activities
- → provides alternatives in scaffolds
- → vary degrees in acceptable performances
- → Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

Step 4.2.2



Define strategies to foster collaboration and communication in an online classroom

- create groups with clear goals, responsibilities, and roles
- → Provide programs with differentiated objectives and positive behavior supports
- encourage and support opportunities of peer interactions, i.
   e. peer tutoring
- → construct learner communities of individuals with similar interests
- → create expectations of groups (rubrics)

Step 4.2.3



Define strategies to increase master-oriented feedback

- Develop feedback that provides perseverance, promotes selfawareness, and gives support
- → provide feedback that emphasizes improvement and encourages a standard rather than meet the objective
- provide feedback that is timely and specific
- provide substantive and informative rather than comparative or competitive
- → provide models that identify patterns of errors and give strategies for future temperature.

# Figure 5 Verbal Information for Step 4.3.1, Step 4.3.2, and Step 4.3.3



Define strategies to promote expectations and beliefs that optimize motivation

- → Provide prompts, reminders, guides, rubrics, checklists that focus on reducing frustration and distraction while enhancing self-reflection and reinforcement
- provide mentors or coaches that aid in setting personal goals and identifying strengths and weaknesses
- → support activities that identify personal goals and aid in self-reflection

Step 4.3.1



Define strategies to provide personal coping skills and strategies for an online classroom

- → Provide models to manage frustrations
- provide scaffold enabling access to external emotional support
- provide models and/or feedback for developing internal controls and coping skills
- provide feedback appropriately addressing subject specific phobias
- utilize simulations or real life situations to demonstrate coping skills

Step 4.3.2



Define strategies to develop self-assessment and reflection

- → Offer devices, aids, or charts to assist learners in collecting, charting and displaying data on their own to monitor progress and appropriate change/modifications
- → Use activities in which learners get feedback and have access to alternative scaffolds (e.g., charts, templates, feedback displays) to understand results in a timely manner

Step 4.3.3

#### LEARNER ANALYSIS

In order to be able to effectively design and implement instruction for a group of target learners, it is extremely important to analyze various learner characteristics.

As seen below, Table 1 displays a visual layout of the seven different information categories used to describe the learner. These include: entry behaviors or skills, prior knowledge of the topic area, attitude towards the content, attitude towards the delivery system, academic motivation, educational and ability levels, general learning preferences, attitude towards the training organization, and any additional group characteristics. In order to collect this data for the analysis, the instructional design team consulted with the Subject Matter Experts (see Appendix B), Kathleen Bastedo and Nancy Swenson - instructional designers for UCF's Center for Distributed Learner, as well as a survey (Appendix A) conducted with Dr. Jeffrey Kaplan (a UCF faculty member and graduate of the IDL6543 professional development course who is interested in learning more about UDL).

Specific learner characteristics related to each information category based on the information provided from the data sources are described below. Based on these descriptions, any implications for design and/or delivery for the instructional unit are also discussed.

Table 1. Learner Analysis for Step 4.0: Identify Strategies to Provide Multiple Means of Engagement

	Information Categories	Data Sources	Learner Characteristics	Implications on the Design, Development, and/or Assessment
1	Entry skills	Interview target learners: Two graduates of the IDL6543 professional development course and current UCF faculty members (See Appendix A and B)	Based on the subordinate skills analysis, students are required to have completed the following entry skills:  - Define engagement - Knowledge of online delivery system and Canvas software - Familiarity with UDL principles and the various obstacles that students with learning or physical disabilities, age, cultural diversities, etc. face in higher education - Knowledge of teaching methodologies	Issues relative to the delivery system:  Most of the learners are very familiar and comfortable with using Canvas for instruction based on their previous experience with the learning management system.  However, an optional online orientation to Canvas and online learning will still be provided in case any new online faculty wish to take the UDL Online course.  Issues relative to the familiarity with UDL principles: The learners appear to have some basic understanding of the general theory and importance behind UDL (primarily in regards to providing multiple means of representation principle). However, the survey was based off a small sample size and the 3 UDL principles should be covered more indepth and provide examples of how to implement them in practice.
2	Prior knowledge of topic area	Interview target learners: same as above	Learners have general knowledge of engagement and UDL principles from taking IDL6543 and other professional development courses offered through the Faculty Center for	While the students that were surveyed have some familiarity with UDL principles, due to the small sample size, some students will be more advanced than others based on their previous teaching

			Teaching and Learning. There has also been some exposure to the topic from serving on various SDS and UDL committees. The learners have also already incorporated some means of representation into their online and mixed mode courses such as providing video captioning.	experiences. In order to compensate for these varying levels of experience, supplemental information regarding the purpose and need for UDL Online will be provided. Those students that have had more interaction with UDL principles and teaching students with disabilities will also be encouraged to demonstrate their knowledge through active discussion participation.
3.	Attitudes toward content	Interview target learners: same as above	The learners were surveyed about their attitudes towards the content and are enthusiastic about learning more about the multiple means of representation, action and expression, and engagement. They have a positive attitude towards the content because they find the content to be very applicable to their current career positions.	Although the students have predicted high levels of attention, confidence, and satisfaction with the content to be learned, this can only be inferred from the survey data collected from a small sample size and a follow-up survey should be conducted after the conclusion of the course.
4.	Attitudes toward potential delivery system	Interview target learners: same as above	The learners are very comfortable with the delivery system for the course (Canvas) because they have designed and taught multiple courses of their own through the same learning management system.	Of the small sample size, one student indicated a mixed-mode learning preference, although the UDL Online course will be delivered completely online. The instructional unit should incorporate a variety of learning methods to account for a diverse group of student learning preferences and be consistent with UDL Online principles. These should include narrated lectures, independent work, team based application, and peer discussions.

5.	Motivation for instruction (ARCS)	Interview target learners: same as above	The learner's motivation for instruction seems to be pretty strong. They are interested in the topic of UDL and they find the topic to be extremely relevant to their current positions as online and mixed-mode course faculty members. There is a sense of confidence among the learners that they will successfully be able to incorporate the various UDL principles into their own courses.	Though the sample size is small, the expressed motivation for instruction was strong and confident. With the interest level amongst the target learners was strong, there should be continued variations in instruction to keep motivation high. These variations should include instruction on the educational needs of diverse populations. Providing variety and diversity that can be incorporated into their own courses. will maintain motivation.
6.	Educational and ability levels	Interview target learners: same as above	The learners hold Ph.D.'s in their respective disciplines and have been teaching online and mixed mode courses at UCF for at least four years. They teach undergraduate as well as graduate courses.	Keeping in mind the surveyed target learners held Ph.D. degrees, implications may arise in the different levels of education and experience. The survey should be broadened to also see if the majority of the target learner all hold Ph.D.'s. If this is certain than the sample would likely be accurate.  Further analysis may be needed to include other degree types, educational backgrounds, and experience levels. Courses offered in UDL modalities should cater to the varied educational and ability levels.
7.	General learning preferences	Interview target learners: same as above	The learners are comfortable both working individually and working on teams, but would prefer to work on a team whenever possible. When it comes to receiving instruction the learners do enjoy routine deadlines, but would prefer to work at their own	While the target sample is small, it did recognize a preference to team style learning. Varied and balanced practices involving team efforts and individual projects should be included as not to offend the preferences of others.  In regards to pace of learning:

			pace. The learners also reported that they would prefer more of a visual learning style.	While the learners enjoy working at their own pace, they do enjoy deadlines. Efforts in instructions should include a schedule including due dates for various projects, activities, etc. Implications may arise if some target learners work at a much different pace than others in the same course. Therefore, information regarding the pace of the course and actions for early completion should also be included.
8.	Attitudes toward training organization	Interview target learners: same as above	The learners seem to have a positive attitude towards the training organization (UCF's Center for Distributed Learning). They indicated completing other professional development courses offered by UDL and seem excited to continue their growth with a course on UDL.	Maintaining positive attitudes is important to the success of the target learners. Implications may arise if there are a lack of courses representative of the learner's interests. Ensuring there is variety in design and number of applicable professional development is imperative to maintaining this positive attitude.
9.	General group characteristics a. Heterogeneity b. Size c. Overall impressions	Interview target learners: same as above	The learners are diverse in terms of gender, age, ethnicity, and the types of subjects they currently teach at UCF.	Because the size of the target learners is small but does include diversity, instructions of the course should cater to diversity. Examples, videos, and other aids should include variety in gender, ethnicities, and ages so to represent their target learners appropriately.

### **CONTEXT ANALYSIS**

The information in this portion of the analysis will identify the environmental elements in which the learners are being instructed. As the UDL Online course is an online course, one can see in Table 2 that the facilities rest in the learner hands with use of a computer. There is no physical "classroom" making the environmental aspects more unique than a traditional setting.

The physical aspect of the learner context is the same as the performance context, the primary difference is in the role that the learner will take on. There is a little bit of variation between departments regarding online supervision, with some departments having supervisors drop into courses and others don't have any oversight, which could also be perceived as a lack of support. The learner context also happens largely within a cohort and group of learners, in contrast to the performance context, in which faculty often design and instruct on their own, therefore the social aspect of the context is different.

#### **PERFORMANCE ANALYSIS**

The performance analysis was conducted with surveys (utilizing survey monkey) from graduates of previous IDL6543 courses. The survey can be seen in Appendix A. It can be noted that with online instruction, the physical and social aspects are more flexible and offer more freedom than traditional methods of instructional delivery. Also, the level of supervision required is often minimal with flexibility of learners' schedules.

In the final portion of Table 2, the learners felt the information was relevant to their current practice of instruction. They felt confident not only in Step 4, but all steps leading to ultimate goal of engagement. There was also an expressed better understanding of the UDL principles and meaning in general.

**Table 2. Performance Analysis** for Step 4.0: Identify Strategies to Provide Multiple Means of Engagement

Information Categories	Data Sources	Performance Site Characteristics	Implications on the Design, Development, and/or Assessment
Managerial/ supervisory support	Interview target learners: Two graduates of the IDL 6543 professional development course (Appendix A) and current UCF faculty members (Appendix B)	Reward system: Surveyed faculty both expressed an interest in incorporating UDL principles for their personal and professional growth. Many of the faculty also receive a stipend (a monetary award) for participating in the professional development course.  Amount (time) and nature of direct supervision: Supervision of faculty is minimal as they are typically responsible for running	Relative to Reward System: Because there was a reported stipend for the faculty, a budget for monetary compensation will have to be established for future participants.

	Organization Records: Provided by current UCF faculty (content experts)	and managing their own online or mixed mode courses.  Evidence of supervisors commitment (time, resources):	Relative to nature of Direct Supervision: With minimal supervision level, it would be advised to have an assessment tool for enrolled participants to understand if they meet the necessary entry level skill of the Canvas delivery system. If not, they should either remediate to proficiency or have tutorials to aid their experience.
2. Physical aspects of site	Interview target learners: Same as above Observations: Collected from current UCF Faculty members	Facilities: Online classes can be conducted from anywhere, most often from the faculty member's home. Full-time faculty members also have access to an office either on UCF's main campus or one of the satellite campuses. Resources: The Center for Distributed Learning offers classes and support to online instructors. Each online faculty member has an instructional designer assigned to them to help design and assess accessible curriculum. Online classes are conducted through Canvas, the Learning Management System provided by UCF.  Equipment: Equipment needed could vary by course, but as a minimum, students are expected to have access to the internet as well as the assigned course textbook(s).  Timing:Courses are scheduled by the semester (spring, summer, and fall) and the learning is asynchronous so timing varies depending on course load. All instructors are required to be available for office hours whether in person or virtual.	Relative to Facilities and Equipment: Implications with the physical aspect would include interferences with network usage on UCF's main campus, down times of the mainframe and of Canvas, and technical problems with the devices of the participants.  Relative to Resources: Implications may arise if the schedules of the target learner and the designated instructional designer are not compatible for communication.

3. Social aspects of site	Interview target learners: Same as above  Observations: Same as above	Supervision: Supervision of faculty is minimal as they are typically responsible for running and managing their own online or mixed mode courses.  Interaction: Graduates of IDL6543 will be assigned a personal instructional designer that they can collaborate with and use for assistance in evaluating their course materials for accessibility. Graduates sometimes team teach but they often instruct courses individually.  Others using skills effectively:	Relative to Supervision and Interaction:  Since the course is being administered in an online forum, extra efforts would need to accommodate interaction with the cohorts of each course. Online course work is ofte commenced by the individual user.  Other implications can with the design process can occur the personal instructional designer is unavailable at the bequest of the participant.
4. Relevance of skills to workplace	Interview target learners: Same as above Observations: Same as above  Records: Reviewed content expert's journal article describing importance of increasing accessibility online. http://onlinelearningconsor tium.org/jaln/v17n3/progra mmatic-systematic- automatic-online-course- accessibility-support- model	Meet identified needs: UDL instruction should meet the identified needs to make online courses more accessible to a diverse student population. Graduates of instruction will be able to confidently assess their courses for providing multiple means of representation, action and engagement.  Current applications: Many faculty members have a preliminary understanding of UDL that they are introduced to in IDL6543. A course dedicated to teaching the UDL principles will help faculty better assess current instructional practices and develop future curriculum that is accessible to all students.  Future applications: As the number of students who take an online course and registered students with disabilities continue to increase the importance of creating online courses that are accessible to all students is critical to student and university measures of success. Instruction in UDL will best equip faculty with how to meet the increasing demand for online instruction, in a way that best serves the students.	Faculty members need a foundational knowledge of UDL system and an entrilevel skill that includes a definition of engagement. If there is a lack of understanding the UDL principles or engagement, the participant would find it difficult to meet the goals of the course. Implications also pertain to a lack of understanding of the student diversit and disability on the faculty participant's behalf.

### **Learning Context Analysis**

Table 3 below expresses the information for the learning context analysis including the number and nature of sites, the site compatibility with instructional needs, the site compatibility with learner needs, and the feasibility for simulating workplace. The UDL Online course is delivered online which, again, provides a great deal of convenience and flexibility since a traditional classroom setting is not required. As a result, the design of instruction also allows for greater compatibility with learners as long as a variety of means are available. The university also employs support for the learners to aid in their learning process.

Finally, the feasibility of transitioning the content from the learning environment to implementation in the faculty's own practice should be an easy conversion. The mode of delivery for instruction is in Canvas as it will be for the faculty to deliver to students. Furthermore, as the faculty participates as a student in UDL Online, they will also have a built in perception of what their own audience will be experiencing.

**Table 3. Learner Context Analysis** for Step 4.0: Identify Strategies to Provide Multiple Means of Engagement

Information Categories	Data Sources	Learning Site Characteristics	Implications on Design
1. Number/ nature of sites	Interview target learners: Two graduates of the IDL6543 professional development course (Appendix A) and current UCF faculty members (Appendix B) Site visits: Learning environment is online Observations: Collected from current UCF faculty members	Facilities: The learning is delivered online. There is a building on main campus where faculty can meet with course designers and content experts at the Center for Distributed Learning.  Equipment: All participants access course materials online through Canvas. All participants as online instructors have the equipment needed to participate in the course.  Resources: The course will be offered through and supported by the Center for Distributed Learning.  Constraints:  1) Since learning is online and asynchronous content experts may not be available to answer learner questions when they arise, which can slow down or inhibit learning.	Learning is asynchronous, so the learning materials and explanation will have to be really clear to mitigate student questions outside of regular business hours. The course will include an FAQ section so that peers can help answer on another's questions and course information does not get miscommunicated. Learning content will also have to maintain a clear structure with prerequisites and assessments to verify learners are ready to progress to new content.

		4) Each college in the university varies with the support, supervision and expectations they have of their online faculty.  Other:	
2. Site is compatibility with instructional needs	Interview target learners: Same as above Site visits: Same as above Observations: Same as above	Instructional strategies: Online a variety of instructional strategies can be implemented to include self-study print materials, class discussion, group work and collaboration, video, audio, simulation.  Delivery approaches: Support is available for online instruction and multimedia.  Time: The course will be divided into 5 sections with an estimated two hours devoted to complete each section. Since learning is online the learner can move through the course at a faster or slower pace than the estimated time.  Personnel: Graduate students in EME6613 will develop the course. This team will be supported by content experts from the Center for Distributed Learning and current online faculty.  Other:	Online learning should be delivered using media that can be viewed on all devices and does not require out of class tools. If students require IT help they can contact the CDL, but it is limited to business hours, this may be difficult for students commuting from a long distance, so once again it is best to only use the learning tools provided within webcourses since school wide support is provided.
3. Site is compatibility with learner needs	Interview target learners: Same as above Site visits: Same as above Observations: Same as above	Location (distance): Learners can participate wherever there is internet connectivity.  Conveniences: Learners have greater flexibility to participate in the course even if they are on vacation for a week or at a professional conference.  Space: Canvas has collaboration and discussion tools that are available to learners throughout the course.  Equipment: There is a stipend that is given to learners to help supplement the cost of equipment computer and internet access.  Other:	The strength of online learning is that learning activities can be adapted to the learner needs, so the site is very compatible. What is important is to provide multiple modalities of learning and for the learner to know how they best learn so that they can choose learning activities that will best support their needs.
4. Is feasible for simulating workplace	Interview target learners: Same as above Site visits: Same as above Observations: Same as above	Supervisory characteristics: Physical characteristics: The physical characteristics can be simulated since learners will be teaching in the same environment, Canvas. Social characteristics: Within their role as online instructors, learners will facilitate the group discussions and collaborations that they will participate in throughout the course. Other:	The learning will take place online which is the same context they will perform in, so we can model the principles we teach through our instructional design.

### **APPENDICES**

# **Appendix A**

The following were questions from an online survey sent to Dr. Jeffrey Kaplan (a UCF faculty member and graduate of the IDL6543 professional development course who is interested in learning more about UDL).

## **UDL Background Information**

Q1: Universal Design for Learning (UDL) focuses on providing multiple means of representation, action and expression, and engagement. The following questions will ask you about your interest in UDL.

- How familiar are you with the UDL principles?
- How relevant is UDL to your current position?
- What aspects of UDL interest you the most?
- How confident are you that you can incorporate UDL principles into your course?
- How satisfied do you anticipate you will be with your instruction after learning UDL principles?
- What are your course expectations for a course on UDL?

Q2: Do you currently provide multiple means of engagement (such as recruiting interest, sustaining effort and persistence, and promoting self-regulation) in your online or mixed-mode courses?

Q3: If any, which strategies for engagement do you utilize most often?

#### Learner Preferences

Q4: How comfortable are you with online courses through Canvas:

- As an instructor?
- As a learner?

Q5: As a learner, do you prefer face-to-face, online, or mixed-mode classes?

Q6: Respond to the following questions regarding online learning:

- What are the benefits?
- What are the challenges?

Q7: In general, what are your learning preferences?

- Do you like working on teams or do you prefer to work individually?
- Do you like to work at your own pace or do you prefer routine deadlines?
- Are you more of an auditory or visual learner, or both?

# **Professional Development**

Q8: The following questions are about the courses you teach at UCF.

- How long have you taught online or mixed mode classes?
- What are some common concerns for online instruction?
- Do you teach undergraduate or graduate courses?
- What subject(s) do you teach?
- On average, how many students do you teach?

Q9: The following questions are about your professional development at UCF.

- What was the most beneficial aspect of IDL6543?
- What was the most challenging aspect of IDL6543?
- Have you participated in any other professional development courses offered through the Center for Distributed Learning?
- Is your supervisor supportive of you for taking the professional development class on Universal Design for Learning?

Q10: Can we contact you later to try out our course?

# **Appendix B**

The following questions were e-mailed to subject matter experts Ms. Kathleen Bastedo and Ms. Nancy Swenson (UCF Instructional Designers from the Center for Distributed Learning and developers of the IDL6543 professional development course) on two separate occasions.

## First set of questions:

To develop curriculum do faculty work in cohorts or individually?

Are faculty that instruct on-line or mixed mode classes provided with a laptop or do they have to provide their own?

Are there mentors that assist graduates of IDL6543 or the course we are developing implement changes into their curriculum? Or that will evaluate changes they have made? Are there any other forms of support beyond the course that will help faculty implement newly learned principles?

# Second set of questions:

Are any incentives aside from professional development given to participants in CDL courses? (ex: helps promotion or lighter class load)

Are faculty required to participate in a certain number of faculty development courses?

Are there a certain number of office hours that faculty are required to be accessible to students?

Is there any supervision of online instructors? If so how are they supervised?

Are there existing cohorts for faculty that are practicing UDL?

Do you have any courses or instructors that have been identified as successfully implementing UDL principles?