Research-Informed Online Language Course Design and Development for Least Commonly Taught LTCLs: The case of Introductory Dari, Pashto, and Uyghur

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Abstract

Online language teaching is continuing to grow in importance both in the academic world and the public sector as language learners desire to increase their language skills within the framework of an increasingly digital landscape both in academia and the corporate world. While the current landscape of the online language learning community is still highly saturated with more commonly taught languages like Spanish, French, Chinese, etc., members of the less commonly taught languages (LCTL) community are looking to take advantage of the same benefits of providing online courses, such as increasing marketability to a larger learner audience, supporting self-paced learning, increasing learner autonomy, and increasing individual interactivity, as well as additional LCTL-specific benefits, such as helping sustain LCTLS with low enrollment. In this paper, we seek to describe one program's experience designing and developing three introductory online courses in Dari, Pashto, and Uyghur, detailing our process from research and inception to the prototype development phase.

Keywords: online language learning, LCTLs, pedagogy-driven design, instructional design, course development

1. Background and Introduction

According to a recent report published by the U.S. Department of Education (2014) it is estimated that as of Fall 2012, of the 21,147,055 undergraduate and graduate students enrolled in educational institutions nationwide, approximately 12.5% of those (2,642,158) were enrolled exclusively in online courses and 13.3% (2,809,942) were enrolled in a combination of traditional and online courses, accounting for a total of 25% of the students in U.S. institutions of higher education. For the purpose of the study, the Integrated Postsecondary Education Data System (IPEDS) defined distance courses as "education that uses one or more technologies to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously" (p. 1). Considering these statistics, it should not come as a surprise that traditional universities that once rejected the online learning trend as second rate education during its initial boom in the 1980s under the University of Phoenix are now fully embracing this learning medium (BrainMass, 2012).

However, even during the online learning boom in the 1990s and early 2000s, and continuing to the present, there remained some fields of study more hesitant to join the online movement than others, and traditionally language education fell into this category (Wood, 2005; Blake, Wilson, Cetto, & Pardo-Ballester, 2008; Taylor & McQuiggan, 2008). As a group, language teachers were more reticent to adapt language learning technology practices (also known as computer assisted language learning, or CALL) into their curriculum and course designs. These language teachers viewed the idea of online language learning as impossible because they believed it limited the learners' exposure to authentic speech and did not allow for interactivity between classmates and instructors (Blake, 2009; Lamy, 2013). However, the introduction of successful online language programs has proved that language teaching can be successfully taught online, in a cost- and time-effective way, leading numerous other language programs to follow suit (see e.g. White,

2003; Stickler & Hauck, 2006; various articles in Hampel & Stickler, 2015).

Today, the online language learning landscape is vast and encompasses learners studying languages for a multitude of reasons, both academically motivated (such as fulfilling a degree requirement, as an elective, or as a major or minor) and non-academically motivated (such as heritage learning, for business purposes, or for general learning appreciation). Learners are taking these courses as part of their education through a variety of sources, including 4-year academic institutions, 2-year community colleges, and dedicated language learning programs, both accredited and non-accredited (Friedman, 2015). Yet, the majority of contemporary online language learning programs remain focused on the majorly taught languages of the United States: ENL (English as a New Language), Spanish, French, German, Italian, etc., as well as the principal LCTLs such as Chinese, Arabic, and Russian, with considerably fewer offerings in the way of the least commonly/rarely taught LCTLs. For that reason, educators in the LCTL realm are increasingly dedicating efforts to develop their own online language programs in order to capitalize on the benefits of online learning, such as wider geographical access to students (which helps sustain these languages, as opposed to terminating a language program because of low enrollments, a major concern shared by *all* LCTLs), along with other, more general benefits, that are common to all languages, such as providing self-paced learning opportunities and encouraging learner autonomy, and a wealth of digital media resources for providing students with a greater variety of authentic language input.

As a Department of Education (Title VI) funded national Language Resource Center (LRC) committed to promoting the learning and teaching of the less commonly taught languages (LCTLs) of our region, the Center for Languages of the Central Asian Region (CeLCAR) at Indiana University in Bloomington, Indiana pledged as part of our 2014-2017 grant cycle to prioritize the design and development of stand-alone online LCTL courses in several Central Asian languages over a four year period. This paper is

a descriptive account of our research-informed collaborative design and development process as we work to create the first three courses in the series: Introductory Dari, Introductory Pashto, and Introductory Uyghur. Although efforts are focused primarily on Central Asian languages, most of the ideas presented herein, as well as the challenges we have come across are applicable to other LCTLs as well.

2. Planning

2.1. Conception

The idea to create online courses for our languages was a culmination of two main influences. First, the College of Arts and Sciences at Indiana University, where our center is housed, recently prioritized the development of online language courses as part of a commitment to deliver quality education to a wider audience of learners. Second, and perhaps more importantly, part of our initiative as an LRC is to increase the population of language learners for the languages spoken in Central Asia. In the past, CeLCAR focused on increasing language offerings at universities by developing quality peer-reviewed textbooks published through independent university presses based on curriculum developed for the traditional university environment, as textbooks on these languages were virtually non-existent. However, we recognize that while some of the potential learners of Central Asian languages are traditional students seeking to learn the target language as part of their studies in linguistics, area studies, etc., we are also aware that there is an equally large potential audience of non-traditional students currently being underserved, including active duty military personnel, reservists, non-governmental officials (NGOs), heritage learners, humanitarians, and other professionals with business interests in the region who do not have the means of traveling to the handful of universities in the United States that offer these languages as part of their regular curriculum. In fact, for many of these languages, Indiana University stands as the only institution regularly offering them. Even with the availability of textbooks, therefore, as many institutions cannot afford to offer

courses with extremely low enrollment, these learners are left with no institution to study the target language. In addition, these leaners typically work full time and are precluded by factors such as time and location that prohibit them from enrolling in a typical course at one of the select universities in the country which actually offer these LCTL courses. Offering online courses would allow these learners to access the language courses they need from anywhere in the world and around their own schedules.

For reasons like these, for the first time in a university environment, we have systematically embarked on a process of developing online courses for Central Asian languages. The languages that are initially under focus are Dari, Pashto, Uyghur, Uzbek, Mongolian, and Tibetan, with a special emphasis on the first three in the first phase, the development process of which will be the subject of the remainder of this paper. As no guidelines or principles currently exist for the development of online LCTL language courses, we hope the current project to serve as a research-based informational resource for similar endeavors in other LCTLs.

2.2. Establishing an Online Course Development Team

CeLCAR's first step in developing quality online courses was establishing a collaborative development team by the center Director wherein each team member serves an important role in the instructional development process.

Administrator. The head of the development team is the center's assistant director. Conferring with the center director, the administrator schedules the meetings, sets the agenda, records the minutes, negotiates team member tasks, and follows up on the progress of assigned tasks. Additionally, the administrator arranges and facilitates meetings with other departments and units on campus regarding administrative guidelines and available resources. The administrator is also responsible for updating the center Director on team progress and helping implement new pedagogical and administrative guidelines as directed.

Instructional Designer. The team's instructional designer oversees the pedagogical design of the courses. Together with the center Director, the instructional designer researches the relevant teaching and learning methodologies related to developing an online course and is responsible for working one on one with the developers in ensuring that these concepts are integrated effectively into each course design. She works directly with the language experts as they define their learning objectives and collaborates with them on the content of the course, including content of the instruction, practice activities, and assessments.

Multimedia Expert. The multimedia expert serves as the technology expert and multimedia developer. He researches technological options and presents them to the team as inspiration, works one on one with the developers to develop interactive applications to integrate into their modules, and assists the developers with technological problems they encounter during the module development process.

Language Experts. The team's language experts are experienced instructors and language materials developers with experience in peer-reviewed textbook development. They bring their years of experience, both in the classroom and as textbook developers, to the table as they are ultimately the ones responsible for the content of the language courses. They help determine what the students should be learning, the order in which it should be taught, and what the students should be able to do by the completion of the course.

2.3. Needs Analysis and Research

Once the team was established, the next step was to conduct a thorough needs analysis to determine both the needs and desires of the prospective learner audience and the institutional expectations and constraints to inform decisions about the course design moving forward.

Learner Analysis. To begin the learner analysis, the team members hypothesized the perceived needs of the potential online learners based on direct feedback from potential learners (including people who have asked about online learning options in the past) and profiling language learners. Using this information, a survey was distributed electronically to potential learning groups. The type of information gathered through this survey is summarized in Table 1 below.

Summary of Information Gathered in Needs Analysis Survey

- General information about participants (age, profession, location, education level, previous language learning experience)
- Willingness to take an online class
- Technology comfort level
- Access to the internet
- Access to technological devices (desktop, laptop, tablets, smart phones, etc.)
- General interest in learning a CA language, and if they are interested:
  - Which languages they are interested in studying?
  - Delivery manner in which they would be most interested in studying (traditional classroom, online instructor led, self-study, etc.)
  - What constraints most influenced their answers (time, finances, location, etc.)?
  - What proficiency levels they would hope to attain at the end of the course?
  - What credentials they would want/need to earn at the completion of the course (credits, certificate, oral proficiency score, etc.)?

Table 1. Summary of Information Gathered in Needs Analysis Survey

The survey was distributed to two specific groups: (i) contacts from the departmental address book that had previously purchased or expressed interest in our materials and (ii) people identified as

potential learners based on their profession or association with businesses with interest in the Central Asian region. The survey was also posted on CeLCAR's social media accounts (Facebook and Twitter) and followers were encouraged to take the survey and/or share the link with their peers in the language learning and linguistic communities.

Because the survey was partially distributed via social media, it is impossible to determine exactly how many people had access to it, skewing an accurate response rate. However, we know that the link was emailed directly to approximately 4,000 contacts, and that 322 anonymous survey responses were received.

Out of the 322 responses, 91.3% respondents indicated they had a general interest in learning a Central Asian language. Of the 19 languages listed (Azerbaijani, Balochi, Bashkir, Buryat, Chuvash, Dari, Kazakh, Kurmanji, Kyrgyz, Mongolian, Pashto, Sakha/Yakut, Sorani, Tatar, Tibetan, Tajiki, Turkmen, Uyghur, and Uzbek), the four languages with the highest self-reported interest were Uzbek (99 reported *Very Interested*), Dari (98 reported *Very Interested*), Uyghur (88 reported *Very Interested*), and Pashto (84 reported *Very Interested*). When asked *How interested would you be in studying one of the above languages in the following ways*, respondents indicated their highest preference, with 155 reporting *Very Interested*, was for a *Self-study online course (no instructor; self-paced; learning through texts, videos and activities; self-assessments*). The second choice, with 121 reporting *Very Interested, was Instructor led online course (instructor led; no required class meeting time; primarily recorded interactions; instructor feedback*). The third choice, with 93 reported *Very Interested)* was a *Distance education program (instructor led; scheduled online class meetings; real-time interactions; instructor feedback*). And finally, 81 reported *Very Interested* in studying one of the languages in a *Traditional classroom at a college/university*.

The following table summarizes the respondents' self-reported constraints directly influencing their language course preference:

Time:		
This is not a constraint to me.	47	16%
I need a self-paced course where I determine how quickly or slowly I complete the course based on my own schedule and needs.	165	56.1%
I need to be able to determine the number of hours I spend studying a week.	129	43.9%
I can study a language following a typical university/college semester (16 weeks).	82	27.9%
I would prefer not to be confined to a typical university/college calendar.	130	44.2%
Other	15	5.1%
Financial		
This is not a constraint to me.	32	10.9%
I need a course that is as inexpensive as possible.	205	69.7%
I would be willing to pay more if it meant receiving college credit for the course.	49	16.7%
I would be willing to pay more if it meant receiving a certification at the completion of the course.	96	32.7%
I would be willing to pay more if it meant having a live instructor able to provide feedback and give assistance.	126	42.9%
Other	9	3.1%
Location		
This is not a constraint to me.	12	4.1%
I can take a semester long course at Indiana University in Bloomington, Indiana.	29	9.9%
I can travel to Bloomington, Indiana for the 8 week long summer intensive workshop.	50	17%

I cannot travel to take a course, I need to be able to complete it from my home/office in the United States.	137	46.6%
I cannot travel to take a course, I need to be able to complete it from my home/office outside the United States.	128	43.5%
Other	19	6.5%

Table 2. Summary of Constraints Influencing Respondents' Language Course Preferences

Interestingly, 88% (259) listed a *personal interest* in studying Central Asian languages and 74% (216) listed a *professional interest* (they were not restricted to one or the other), demonstrating that for a majority of respondents there was a clear overlap between their personal and professional motivations. The majority of respondents, 53%, desired a proficiency level of *Intermediate High (I would be comfortable expressing my everyday needs and able to sustain a conversation based on interpersonal matters. For example: discussing a family tree or telling someone about my vacation.)* upon completion of an online course, with 30% desiring an *Intermediate Mid (A step beyond canned phrases. I could put together simple requests, such as asking for directions. I could understand native speakers if they spoke slowly and used simple structure and vocabulary. For example: asking directions to a museum, asking for vegetarian options at a restaurant).*

Finally, Figure 1 summarizes the survey respondents' self-reported comfort level with technology and access to internet.

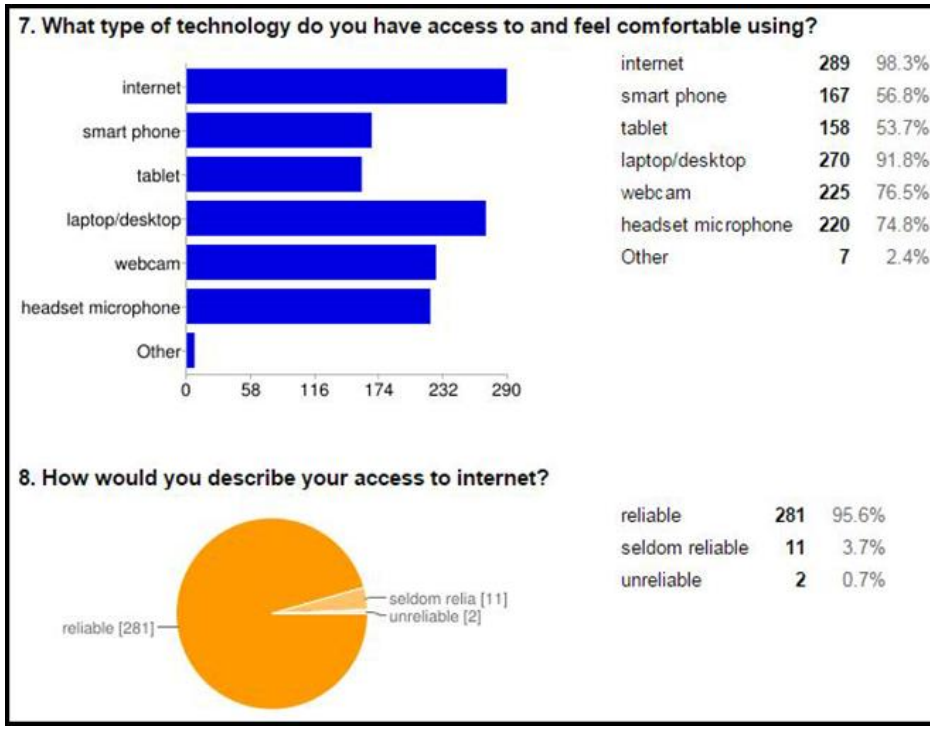


Figure 1. Summary of Respondents' comfort with technology and access to internet

Institutional Support. To conduct a thorough analysis of institutional support, several meetings were scheduled with departments and units across campus. First, the center director met with key university officials to determine specifics for creating an online course, including specifications for facilitated contact hours and the processes of awarding credit and collaborating with other academic institutions. The development team also met with staff from the Office and Online Instructional Development (OOID) in University Information Technology Services (UITS) and the Center

for Innovative Teaching and Learning (CITL), two entities on campus which had previously been tasked by university officials to help language departments develop online courses. These two departments were instrumental in providing general online learning advice, such as providing standards for online teaching (Quality Matters), making recommendations for adopting a content management system (Canvas), providing examples of similar online courses, and facilitating meetings with language instructors in the greater Indiana University community who had previously developed successful online classes.

Research. In preparation for beginning development, all team members participated in the Online Course Basics workshop series hosted by CITL. The series consisted of five parts: Introduction to Online Course Design, Assessing Learning in Online Courses, Designing Online Learning Activities, Designing Online Course Materials, and Teaching an Online Course. During the workshop series, the team members, who were already familiar with language teaching methodology, were, in addition, familiarized with current research and methodology in online teaching and were given opportunities to evaluate sample courses.

3. Content Design and Development

3.1 Backward Curriculum Design

Because CeLCAR's online courses are objectives-driven, the team adopted Wiggins and McTighe's (2005) backward course design (BCD) model for defining and organizing course content. Backwards course design is an instructional model that begins by defining the expected learning outcomes of the course and then aligning the other elements of the curriculum towards reaching these predefined goals. Specifically, using a BCD form, the instructional designer and developers defined five major tenets for each module, as illustrated in Table 3 below.

The first tenet was the characterization of 'Learning Outcomes', which was done by asking the question, W*hat specifically do our learners need to be able to do at the completion of each lesson*? 'Assessment' was defined by answering the question *How will we know the learner is able to successfully do what we need them to do*? To define the 'Discovery/Practice Method', the instructional designer, developers, and multimedia specialist collaborated on the types of exercises, activities, and tasks that would allow the learners to sufficiently engage with the language to be able to attain the language skills defined in the learning outcomes. Next, the 'Content Delivery Method', or how the new information is presented to the learners, was defined by thinking of interesting and engaging ways to present the content so that the learners would be able to absorb the material and be able to apply it in the discovery and practice section. Finally, the team also kept track of what additional grammar notes, cultural notes, resources, etc. they would need in order to successfully complete all of the steps of the module. This is illustrated with an example in Table 3 below, where the goal was to teach the writing system of Dari, which is written with a version of the Perso-Arabic script, where letters can take different forms based on whether they are in isolated, initial, medial, or final position within a word.

Lesson 3: Writing your name in Dari				
Learning Outcomes	Assessment	Discovery/Practice Method	Content Delivery Method	Grammar Notes and Other Resources
Identify and label the two form letters of Dari and their forms.	Click on the two form letters. When prompted, label the isolated and final forms of the letters.	Match letter shapes to their different forms. When given a word with connected letters, correctly identify the isolated letter of each letter.	Watch a video recording demonstrating the writing of various forms of two-form letters.	Will need the textbook/workbook for practicing writing these forms.

Identify and label the four form letters of Dari and their forms.	Click on the two form letters. When prompted, label the isolated, initial, medial, and final forms of the letters.	When given isolated letters of common words (with pics), be able to correctly match to the appropriate forms.	Watch a video recording demonstrating the writing of various forms of four-form letters.	
Identify and write Dari ligatures	Correctly match together letter forms with their printed literature.	Match letter combinations to their different ligatures. When given a word with ligatures, correctly identify the isolated forms of each letter.		Will need the textbook/workbook for practicing writing these ligatures.
Write your name in Dari	Correctly write your name using the proper Dari letters, forms, and ligatures.			

Table 3. Backward Curriculum Design Template

3.2. Content Development

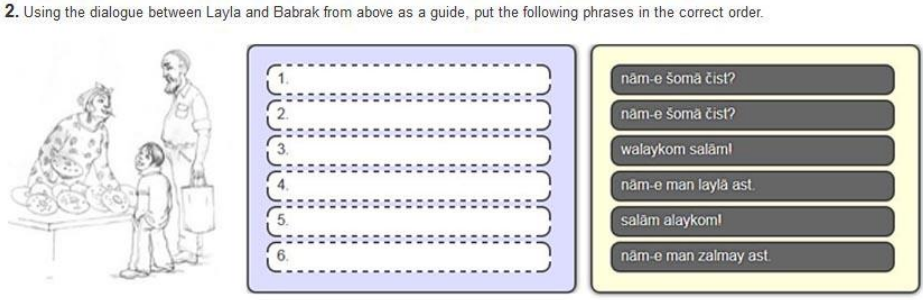
For developing course content, the team uses basic pedagogical principles while incorporating elements from several second language teaching strategies and instructional design models, as explained and justified in detail below.

3.2.1 General Pedagogical Principles

The overall structure of the course uses a theme to create unity and clear transitions between the lessons and modules. The

language structures themselves are introduced following the order of acquisition defined by proficiency guidelines established for each language as part of CeLCAR's Proficiency Testing Project (PTP). Furthermore, after each new instructional element is introduced, practice activities are arranged in a purposeful manner to encourage instructional scaffolding, by presenting the least productive activity (also known as *receptive task*, such as checklists and matching exercises) first, followed by a semi-productive activity (such as fill in the blank with the correctly conjugated verb and answer comprehension questions), and finally the most productive tasks (such as write a short biography about yourself and introduce your classmate, stating their name, age, and where they are from).

We will illustrate this sequence below with actual example tasks from our materials. To begin, examine Figure 2, which exemplifies a receptive activity, asking students to place certain phrases in their correct order based on a dialogue that takes place between two interlocutors. Notice that the advantages of technology are fully exploited here. First of all, the learner can engage with the material to an extent that is not possible in traditional textbooks (by actually clicking and dragging phrases and placing them in their correct slots) and at his/her own pace. Second, immediate corrective feedback is provided to the learners, and is done in ways that are not as stressful as classroom feedback is for many students, thereby having a positive effect on the affective filter (Dulay & Burt, 1977; Krashen, 1981, 1982, 2003).



Next, examine Figure 3, which exemplifies a semi-productive activity, asking students to read in the target language and then answer comprehension questions about the content.

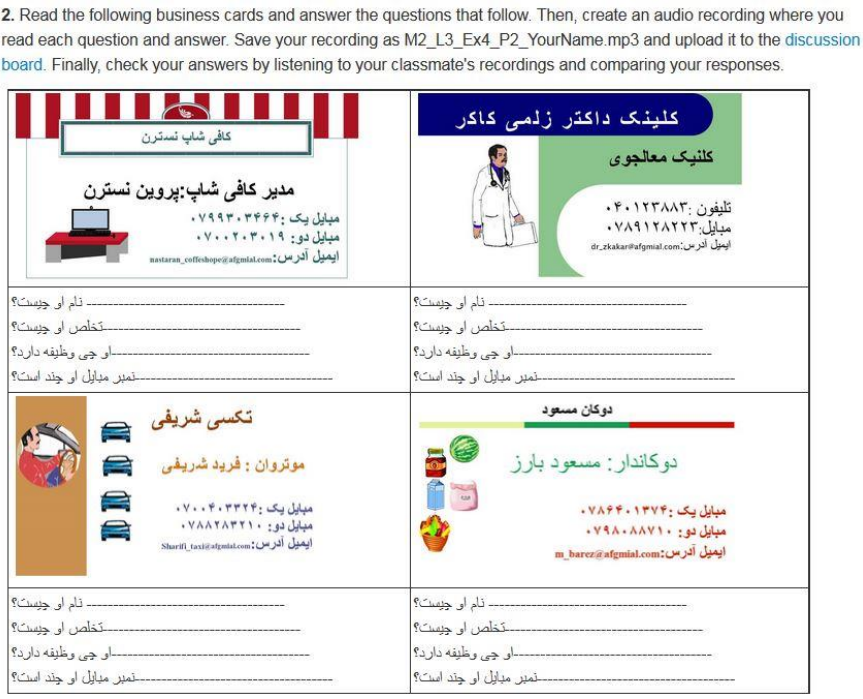


Figure 3. Example of a Semi-productive activity – Reading comprehension questions

Here, the learners have to go beyond just filling in a blank or matching answers, by writing their own sentences in response to the questions posed. Next, they have to actually speak. However, the speech is written down for them (partially pre-written and partially their own language), and they can practice their oral skills as much as necessary before recording. Finally, the learners are asked to self-evaluate by comparing their responses and recordings with their classmates. Furthermore, the activity also includes a component of peer-evaluation because the link to the discussion board asks each student to respond to at least two classmates' recordings. (This

response is about feedback on the language use itself, so it may be done in English.)

As was mentioned above, after receptive and semi-productive tasks, more productive tasks are introduced, as is shown in Figure 4 below:

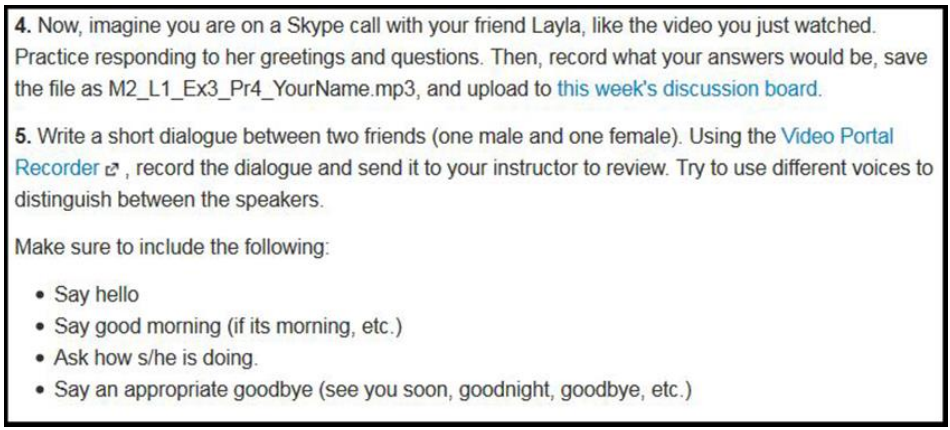


Figure 4. Example of Productive activities – Responding to video prompts and writing original dialogues

In Practice 4, the learner will produce their own spoken language in response to a pre-recorded video, demonstrating both active listening ability and speaking ability by responding appropriately within a pre-defined context. The learner is not asked to write down his/her responses before recording, because they should practice responding orally to the fictional interlocutor, as they would in real-life. The learner is not able to receive immediate feedback from an interlocutor, but will receive feedback from classmates as part of the discussion board component of the activity.

In Practice 5, the learner is given the opportunity to write their own dialogue using all of the major components introduced in the lesson (greetings, farewells, etc.). They are provided loose guidelines of a context, but then allowed to be as creative as they desire. Then, the learner is asked to record a video of him/herself

acting out the dialogue, which gives them the chance to demonstrate both language skills and cultural knowledge (body language, order of man greeting woman, etc.). These more productive tasks are generally assessed by the instructor.

For each step of the process, the team consults the updated Bloom's Taxonomy chart for categorizing cognitive understanding (Anderson, 2000) to determine whether the activity provides learners with the highest level of intellectual challenge appropriate according to their linguistic ability and the learning outcome desired. As the language faculty is different from other skills that make use of cognitive abilities (see e.g. Chomsky 1959, 1965, 1968; Pinker, 1984, 1991 for first languages; White, 1989, 2003 for second languages), this approach is used in combination with other pedagogical methodologies specific to language teaching, such as Krashen's (1985) input+1 approach, which is specifically developed for second/foreign language teaching. This is especially important in an online teaching platform; as Hampel & Stickler (2005) emphasize, since the subject of a language course is 'communication', online language courses require different skills and pedagogies than teaching other courses online. The combined use of these different pedagogies and the unique application in the online platform can be seen in our online course on Elementary Dari, Module 1 of Lesson 3, which begins with a video of a friend introducing another friend to others. In Exercise 1, Practice 1, learners only have to recognize and *remember* the new vocabulary words from the video. In the next activity, Practice 2, they have to go a bit deeper to *apply* their linguistic knowledge, completing sentences with the correct form of the missing words and phrases. In each

Figure 5. Bloom's Taxonomy (1956) updated by Anderson/Krathwohl (2001)

subsequent step of the lesson, learners are introduced to new manageable chunks of linguistic knowledge (Ellis, 2003) with practice; until culminating in tasks that require the learners to combine elements from all the practice activities within the lesson to *create* something original using the knowledge they have gained.

3.2.2. Instructional Design Models

Studies on online learning have found that there are differences between traditional classroom learning and online learning that instructors need to consider when developing online instruction (Sun, 2011). One major difference is the need to shift from a *teacher-centered* approach in the classroom to a *student-centered* approach, which would include more forms of learning modalities and incorporating a higher emphasis on motivation. For this reason, the online team adopted the ARCS Model of Motivational Design (Keller, 2010) to ensure that the instruction grabs the learners' *attention*, models *relevance*, builds *confidence*, and ensures *satisfaction* of learning. We describe below how we satisfy these criteria in our materials preparation process.

Attention. At the beginning of each lesson, the team aims to attract the learners' attention through either *perceptual arousal*, using a novel or surprising element to engage the senses, or *inquiry arousal*, stimulating curiosity or engaging discussion, in order to engage them in the subject material (Keller, 2010). For example, lessons often begin with an animated video, a cultural image, or a discussion question; see example in Figure 6. The goals of these elements are usually to first grab the learners' attention and then transition into authentic language practice or a stimulating discussion, often comparing and/or contrasting cultural elements, which also engages one of the 5Cs of language learning, as presented in ACTFL's *Standards for Foreign Language Learning in the 21st Century* (1999/2006).

Figure 6. Example of animated video used to gain attention through visual stimulation

Relevance. When dealing with adult language learners, it is especially important to establish relevance to the material, making clear connections between what the learner is learning and the value of what is being learned (Lightbrown & Spada, 1998; Tarone & Yule, 1998; Tarone & Swierzbin, 2009) to increase motivation. The main way the team establishes relevance is by incorporating plenty of activities that allow learners to practice realistic language use. For example, instead of asking students to read and respond to a dialogue question out of context, we provide the question as a part of a text message conversation, as illustrated in Figure 7 below.

Figure 7. Example of a relevant language activity

Texting is a realistic mode of communication where the learner would be expected to read and write a conversation in real-life as opposed to just listening and speaking, as is expected for most realistic conversations outside a language classroom. Likewise, regarding listening and speaking, we incorporate Skype videos (see Figure 4), magazine articles and newspaper clippings, as well as business cards (see Figure 3); because these are all types of communication we would realistically expect a learner to encounter and need to be able to navigate in the target language.

Confidence. There are several ways the team builds learner confidence, increasing their likelihood of success, such as defining clear learning objectives (Mager, 1997), following Krashen's (1985)

Input Hypothesis, building learner autonomy, and providing immediate feedback as often as possible. First, each Module and Lesson begins with a clear outline of the goals and expected learning outcomes for that section, as illustrated by the excerpt in Figure 8 below from the beginning of a lesson in our Uyghur materials. Uyghur, as with Dari, is written with a version of the Arabic alphabet.

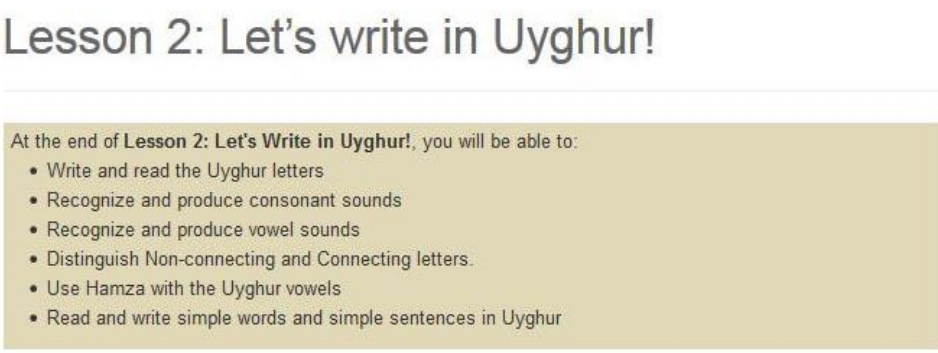


Figure 8. Example of a clearly defined list of lesson goals

The purpose of providing these goals upfront is to make the learner aware of what is expected of them and what they will be able to do upon the completion of the section, making it more likely that they will actually achieve these goals (Mager, 1997). Additionally, when establishing the learning outcomes and writing the goals, team members follow the Input Hypothesis (Krashen, 1985), stating that language learning is most effective when learners are exposed to comprehensible language just above their mastered understanding, also known as *input+1* (or *i+1*). By considering what the learners will know and monitoring what they will be capable of is an important part of the course design, as it helps create the optimum learning environment.

As was mentioned above, an advantage of online learning over the traditional classroom is that learners can control the pace at which they move within the lessons. In order to maximally take advantage of this benefit, the activity directions in the modules often remind learners to repeat the language activities until they feel comfortable. An example of such a self-paced activity is provided

below in Figure 9, where the goal is to teach the Dari alphabet, using the Dari script, pictures, and IPA transcriptions, as well as audio recordings of sound and sequences of sounds represented by individual letters and words:

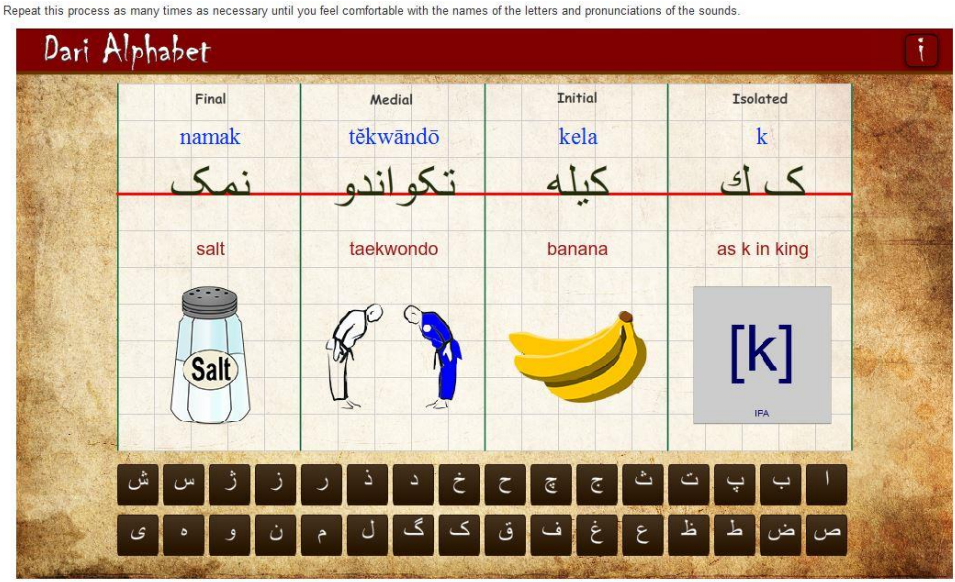


Figure 9. Example of a self-paced learning activity

This kind of personalized instructional pace is not realistic in a classroom setting where the pace of the instruction has to be determined by the needs of the entire class, not just one student. On the contrary, a limitation of online learning is often the inability to provide immediate feedback to the learner, which is important not only for increasing confidence, but also for learners to self-correct ala the Output Hypothesis (Swain & Lapkin, 1995). As we continue to develop the courses, therefore, we continue to search for ideas for providing immediate feedback or more timely feedback. One way we do this is via our interactive apps, such as our matching activities (see Figure 2), fill in the blanks, true or false, etc., as well as computer-generated corrective feedback, such as telling the learner how similar their writing of a given grapheme to that of the target language. An example of this is provided in Figures 10 and 11 below, which

illustrate our Pashto Writing Script Tutorial, a free tablet application available for download on iOS, Android, or Blackberry devices (and will soon be made available for Windows touch screen laptops). (See http://iub.edu/~celcar/language_apps.php)

The Script Writing tutorial (which is available in all of Dari, Pashto, and Uyghur) is organized into three parts: Alphabet, Script, and Practice. The 'Alphabet' section introduces the letters themselves, and provides examples of the letters in context of words (giving pictures and audio for each word). The 'Script' section uses video to show each letter being written, demonstrating the appropriate direction for writing. And finally, the 'Practice' section allows the learner to practice their writing skills in five different ways. First, the 'Letters' section uses a scaffolding strategy of three steps towards independent letter writing: (i) learners trace pre-written letters (shown in isolated, initial, medial, and final forms, as applicable); (ii) learners are given only dots representing the turning points; (iii) learners must write letters on a blank canvas. At any point during these three parts the learner can click 'Feedback' to receive immediate feedback via an accuracy score.

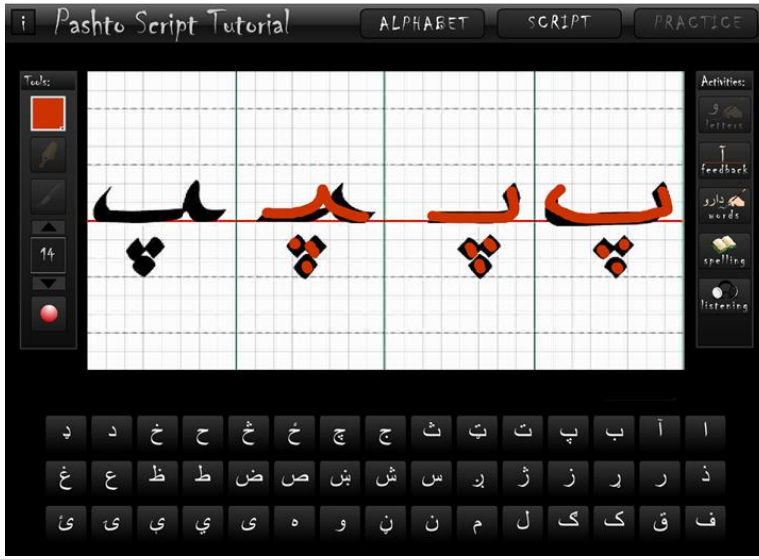


Figure 10. Pashto Script Tutorial: Practice tracing 4-form letters

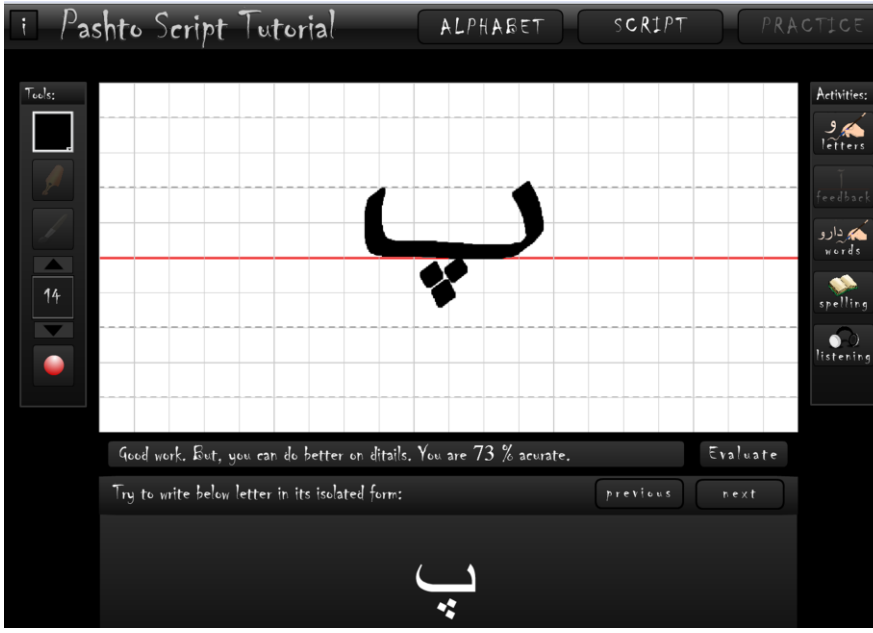


Figure 11. Pashto Script Tutorial: Practice writing letters in isolation.

The other two sections cover reading and writing the letters in context of words: (iv) the 'Words' section provides words that the learner must write in the same style as the letter practice, and applies the same scaffolding method for practicing writing these letters in context. And finally, (v) the 'Spelling' section provides learners with a word, and they must match the written letters to the isolated form. And as with the 'Letters' sections, learners can click 'Feedback' anytime for immediate feedback on their practice.

Satisfaction. Good course design provides learner satisfaction through both *intrinsic reinforcement* (pride in accomplishments through measured and authentic praise and encouragement) and *extrinsic rewards* (grades, credits, certification, etc.) (Keller, 2010). We address the intrinsic needs of our students through clearly designed courses with well-defined learning expectations and frequent formative assessments (see Figure 8) coupled with

immediate or timely feedback from instructors (see Figures 3 and 4). Furthermore, we addressed the extrinsic needs of learners during the planning phase when we performed our initial needs analysis, establishing the extrinsic rewards/gains desired and then ensuring alignment of our course deliverables through our subsequent meetings with university officials.

3.2.3. Second Language Acquisition and Teaching Theories

Currently the data and research on second language acquisition (SLA) theories as they apply directly to online learning is still very limited. And most published articles examining how the existing language teaching methods and strategies work, or more accurately do not work, within the online learning framework are descriptive or inquisitive in nature, rather than prescriptive (see e.g. Echavez-Solano, 2003, Chenoveth, Ushida & Murday, 2006; Murday, Ushida & Chenoveth, 2008; Blake et al., 2008, White, 2006, 2008, 2014). So those of us who are delving into this territory are still negotiating exactly how to proceed by incorporating existing SLA theories, strategies, and methods into our design and development and assessing how effective they are.

While we are incorporating several previously mentioned SLA frameworks and language teaching strategies that stem from these approaches into our design and development process, such as employing learner-centered instruction, scaffolding, chunking, sequence of acquisitions, input+1, focus on learner output, and incorporating the 5cs of language learning; our main approach to language teaching is a modified version of the Communicative Language Teaching (CLT) approach that we have successfully applied in all of our other language learning materials.

The main tenets of CLT include emphasis on communication through interaction, using authentic texts, inviting the learner to focus on the learning process itself, incorporating the learners' own personal experiences, and linking classroom learning with realistic

language use. The incorporation of authentic texts and realistic language in our online language materials with the purpose of building confidence has already been explained in Section 3.2.2 above. Accordingly, we make a conscious effort to encourage communication through interaction as much as possible; however, admittedly, options are limited in an online platform, especially with respect to oral communication (see e.g. Blake, 2009; White, 1999, 2003, 2006; though see Wang, 2004; Wang & Sun, 2001). In order to optimize opportunities for oral communication, however, we ask learners to record themselves and either send the product to the instructor for feedback or post it on the discussion board to elicit peer feedback (see Figures 3 and 4).

We have found that the online setting actually provides a potentially greater opportunity for incorporating the learners' own experiences and reflecting on their learning process and meta-linguistic knowledge through the use of delayed production and the discussion board, especially at the introductory levels. In a traditional classroom, learners' fluency at the introductory level can be a barrier to sharing personal information and discussing high level concepts about the language; in the online environment, on the other hand, we are able to provide learners with the ample think-time and practice to access the words and structures they need for accomplishing these goals. In fact, in the online environment, we have had to incorporate a greater emphasis on self-evaluation (listening to their own audio and comparing it to a sample audio) and peer-evaluation (posting their audios and recordings in the discussion boards and asking students to evaluate or respond) out of necessity, but the by-product we are anticipating is a heightened sense of the meta-linguistic and meta-cognitive learning process. Of course, things are different at advanced levels; in order to reach ACTFL's Superior Level of proficiency in the target language (ILR 3+), a learner would need ample interaction with native speakers, and preferably to spend some time in the country where the target language is spoken. A year-long program abroad may be a necessity for these learners (Davidson, 2007). In other words, not only an online setting, but a traditional classroom setting remains insufficient to reach such levels of

proficiency. It is, however, possible to receive the same benefits at introductory and intermediate levels from online language courses as traditional language classes (see e.g. Echavez-Solano, 2003, Chenoveth, Ushida & Murday, 2006; Murday, Ushida & Chenoveth, 2008; Blake et al., 2008 for research that compared online vs. face-to-face language classes). [1] And we have illustrated here a potential way of doing so for LCTLs, for which online courses may be even more crucial than more commonly taught languages.

Ultimately though, the greatest advantages we are counting on for developing online language courses versus traditional courses is the effect of intrinsic motivation, which we believe to be much higher in our target population for two reasons. One, our perspective learners have self-selected as highly motivated and genuinely interested in learning the language. Unlike someone who might be studying a more commonly taught language for a language requirement, learners of LCTLs are usually more motivated to actually learn the language because they will most likely be studying it for a specific purpose, as was demonstrated by our survey results (see Section 2.3). In addition, the online language classes tend to self-select for learners who have the linguistic skills for and positive attitudes towards working independently, as well as being autonomous enough to have the ability to manage their own learning, as has been emphasized in much recent research (Ushida, 2005; Blake et al., 2008; Murphy, 2008; Murphy & Hurd, 2011; White, 2011; Fuchs, Hauck & Muller-Hurtmann 2012; Furnborough, 2012).

3.3. Module Design

All the content of the modules and lessons are initially created in Microsoft Word. Once the instructional designer and developers are satisfied with the content, they transfer non-interactive

[1] In fact, through the integration of such methodology as "telecollaborative language learning" (Belz, 2002, 2003; Warschauer, 1996; O'Dowd, 2005), online language courses can arguably do a better job in integrating intercultural communicative competence (Byram, 1997) than traditional face-to-face classes where the language is taught in a country with few or no native speakers.

content directly into the course management system (Canvas), using a course shell template previously developed by the instructional designer. This template follows the four main principles of visual design: repetition, contrast, alignment, and proximity (Williams, 2014).

First, *Repetition* in design is used to create a consistent and cohesive product (consistent heading styles, limited font styles, repeating background colors based on table contents, etc.). *Contrast* in color use and font styles is employed sparingly to bring attention and make clear the most important elements (new terms are bolded, important notes are larger and italicized, color is used to differentiate between words and terms in examples, etc.). *Alignment* is used to make the information on the page flow smoothly, and not pull attention unnecessarily or confuse the learner about the order of the learning process. Finally, *Proximity* is used to create a cohesive and organized look, so that learners do not have to guess what text accompanies what image or multimedia.

Once a lesson is entered completely into the online form and the basic design is set, the instructional designer steps back and allows the developers and multimedia specialist to review and tweak the design and add the more complicated multimedia elements such as audio and videos.

3.4. Course Evaluation

In the six months since beginning this project, in addition to planning-related activities, such as performing a needs analysis and creating templates for language experts to use, the development team has completed 4 modules (3 lessons each) in Introductory Dari and Pashto, and 3 modules (3 lessons each) in Introductory Uyghur. At an estimated 4 hours per lesson, that is a total development of 48 hours of online language learning for Dari and Pashto and 36 hours for Uyghur. The team's goal is to develop 10 modules of three lessons each, for a total of 120 hours of language learning per course. Concurrent with module development, CeLCAR has also developed

a three-fold assessment plan for performing both formative and summative evaluations of our materials, which is composed of (i) self-evaluation, (ii) inter-evaluation and (iii) external evaluation.

First, regarding (i) *self-evaluations*, the team created an evaluation checklist based on our own criteria of pedagogical principles and methodology (see sections 3.1 and 3.2) and the 5 Cs defined in the National Foreign Language Standards. These include: *Does the module provide opportunities for learners to communicate with each other and the instructor in the target language, both written and oral? Is cultural learning embedded in the module? Do the module activities allow learners to express and share prior knowledge and personal experiences? Are learners encouraged to compare their own language with the target language? Are learners given opportunities to extend their learning experiences about the target language and culture through interactions with native speaking peers? (email exchanges, social media, etc.)* Each question is rated on a scale of 0 (Almost never) to 3 (Always/Almost Always), and the evaluations are then examined to identify potential weak areas.

During the research phase, the team conferred with CITL and OOID, two units at IU that specialize in online course development and instructional design, to seek advice and gather resources. As part of our collaborative agreement, CITL and OOID have agreed to conduct on-going (ii) *inter-evaluations* on our materials using the Quality Matters program, which is a "collegial review process in which reviewers provide feedback on course design in two ways: (1) awarding of points for specific review standards, and (2) providing substantial, constructive, and specific comments and suggestions with regard to both course strengths and areas for improvement" (Quality Matters, 2011). The Quality Matters program is based on eight standards: (i) *Course Overview and Introduction*, (ii) *Learning Objectives (Competencies)*, (iii) *Assessment and Measurement*, (iv) Instructional Materials, (v) *Learner Interaction and Engagement*, (vi) *Course Technology*, (vii) *Learner Support*, and (viii) *Accessibility*. The following are examples to each of these standards: *1.1 Instructions make clear how to get started and where to find various course components. 2.1 The course learning objectives describe outcomes that are measurable. 3.2 The course grading policy is*

stated clearly. 4.4 The instructional materials are current. 5.1 The learning activities promote the achievement of the stated learning objectives. 6.1 The tools and media support the course learning objectives. 7.1 The course instructions articulate or link to a clear description of the technical support offered and how to access it. 8.3 The course design facilitates readability and minimizes distractions.

And finally the team is conducting (iii) *external evaluations* by distributing a modified version of the (i) internal evaluation form to learners and asking for feedback on their opinion and experiences, as well as rating how well the material has met their expectations. Additionally, during the prototyping stage, the team plans to compare the performance assessments of traditional classroom learners with the performance assessments of their online counterparts to compare and contrast the effectiveness of achieving proficiency levels in each course, which will help us identify weak spots in the course design. We also have plans to ask a couple of external evaluators (a general language pedagogist and a specialist in the target language) to review our materials.

4. Conclusion

The past few months spent developing the online courses in Introductory Dari, Pashto, and Uyghur has been challenging and enlightening work. Members of the online development team have pushed themselves to ensure that the course curriculum and materials being developed are linguistically, pedagogically, and technically strong by incorporating relevant current research and methodology of the respective fields into the overall course design, in addition to designing a solid three part evaluation plan.

The first two modules in the languages were the most difficult and time-consuming to develop, since team members were still negotiating the landscape of the online platform in addition to considering the actual content of the course. Throughout the entire process, the team has invested a lot of time figuring out how to make the course truly interactive, and not just a digital version of a

textbook. Additionally, we have challenged ourselves that, once we develop a solid lesson or activity, to not simply repeat the same design over and over again throughout the other modules, because this kind of repetition quickly leads to learner boredom. We sought, and continue to seek, ways to develop activities that engage the learners both in content and skill variability. Furthermore, the team continues to seek alternative methods of learner assessment, especially the productive skills of speaking and writing, but improving assessment of the receptive skills as well.

The second two modules have come together faster, and the team projects the rest of the process to move along faster still. The goal is to complete three modules during Fall 2015 and three more modules during Spring 2016 (including conducting the ongoing formative assessments), so that all 10 completed modules can be fully tested with students during Summer 2016. Because the materials are all online, the team hopes to integrate feedback as it is received so that the entire course is ready for enrollment by Fall 2016. This means that each course is intended to take 2 academic years (i.e. four semesters) to complete.

In addition to the team's private development goals, a goal from the beginning of the project has been to document the ongoing development process in an effort to provide a solid framework on which other centers and departments of LCTLs can build their own online programs, allowing them to benefit from the advantages of online courses previously mentioned: such as increasing the number of language offerings, increasing enrollment in LCTL courses, lowered operational costs, greater geographical access to students, etc. By publishing the accounts of the team's journey along with an explanation of the research and methodology that guided our decisions, the team will not only make it easier to develop our own subsequent online courses in Uzbek, Mongolian, and Tibetan (slated for Fall 2017), but will also inspire other LCTL professionals to establish similar developmental teams and use similar methods and principles in preparing their own online LCTL courses. In order to achieve this goal, the team will continue documenting the rest of the

developmental progress, including the course evaluations and prototyping process, as well as the comparative statistical analysis of learners' summative performance assessments between the traditional classrooms and online courses, all to be published and made available through our department website: http://www.indiana.edu~celcar.

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