Design Document for Spanish Nivel Básico

Prepared by:
Felipe Amaral

In collaboration with:
Don Fischer
Ariana Koers
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Introductory Pages of the Instructors

Dr. Donald Fischer

Dr. Donald Fischer is a retired US Army Colonel who served as Commandant, Defense Language Institute Foreign Language Center from 1989-1993. He then worked at the University of New Mexico from 1995 to 2005 as Executive Director, Albuquerque Teach and Learn Network and as UNM Project Manager for the Hispanic Educational Telecommunication System, the Navajo Education Technology Consortium Star Schools Project, and the installation of the Northern New Mexico Network for Education’s satellite system.

After completing his PhD in Organizational Learning and Instructional Technology at the University of New Mexico in 2004 and upon his retirement from the College of Education, UNM, he served as Provost, Defense Language Institute Foreign Language Center from 2005-2012 generating linguists in support of the Iraqi and Afghanistan conflicts, the War on Drugs in Latin America, Special Operations efforts in Africa, and national security operations around the world.

He is currently President, Defense Language Institute Foundation. He is an Adjunct Professor at California State University at Monterey Bay. He is working as Senior Consultant, Lingua Brava, an emerging language training, curriculum development, and proficiency test development small, woman-owned, disabled veteran owned business.

Felipe Amaral

Felipe Amaral is an international graduate student from Brazil. He has recently acquired a Master of Arts in Spanish and Portuguese from UNM and continues to pursue his graduate studies in the department of Organizational Learning and Instructional Technology (OLIT).

His research focuses on Computer Mediated Intercultural Communication, Foreign Language teaching and e-Learning. He is especially interested in Intercultural Foreign Language Education and the uses of computer-mediated communication to create intercultural speakers; the use of technology in Foreign Language Education; and the role of technological advances in the social framework of today’s world.

He currently works for the Office of Graduate Studies (OGS) and the Graduate Resource Center (GRC) as a multimedia assistant and webmaster, where he develops and maintains
communications; upgrades and updates the website; provides administrative support; and assists OGS and GRC in producing learning objects and web-based interactional instructional materials.

Felipe also collaborates with the Global Education Office (GEO) and several on-campus organizations, such as the Man of Color Alliance (MOCA) and the Project for New Mexico Graduates of Color (PNMGC), in their initiatives to benefit students of color and promote a more diverse student population at the University of New Mexico.

**Ariana Koers**

Ariana Koers, like Felipe, is a graduate student in the OLIT program at the University of New Mexico. Her fields of interest and expertise are in Chinese language teaching and e-Learning. She teaches Chinese, and has lived and worked in China on three occasions, each a year in duration, and participates in professional development programs in China and the USA.

Ariana is an active member the New Mexico Organization of Language Educators (NM Olé), where she served as president from 2011 to 2012 and continues to play a role in decision making as past-president and board member. She presented at the 2014 Southwest Conference on Language Teaching (SWCOLT) in Utah on cultural elements worth including in the Chinese language classroom. Her goal is to create culture-based online Chinese language courses.

Ms. Koers is a Chinese language teacher at Rio Rancho and Cleveland high schools in the Rio Rancho Public School district of New Mexico. With seven years of experience in the foreign language classroom, her awareness of the importance of effective communication and of drills for retention of information contributed to the approach she took in developing the informational videos and the practice exercises used in the Numbers module of this Spanish Nivel Básico course, upon which subsequent units were modeled.
Executive Summary

This design brief addresses the features of the e-Learning course: Spanish Nivel Básico, designed for OILS 532: e-Learning Course Design, taught at the University of New Mexico. Using learner profiles of non-traditional students with respect to their experiences and motivations, it is clear that cultivating meaningful interactions among course participants and facilitators is beneficial to students in such communities. Through such interactions, social presence, the feeling of the other, and opportunities to communicate and create meaning are created. Social presence is “the ability of participants in a community of inquiry to project themselves socially and emotionally, as ‘real’ people (i.e., their full personality), through the medium of communication being used” (Garrison, Anderson & Archer, 2000, p. 94). Gunawardena (1995) extends this definition to include participants being perceived as “being real” (Gunawardena, 1997, p. 8).

This Nivel Básico course introduces learners to the basics of Spanish along one of two paths: individually, or with a cohort. In the cohort model, peer tutoring and mentoring, along with clear goals and a mission would foster group cohesion. Cohorts would then go on to be deployed or engage in more advanced language classes together. The design project provides a structure to support individual language learning or group language learning through virtual presentation of information and instruction on various tasks in a prepared Spanish curriculum: practice in the curriculum; production of speech; virtual posting of production for instructor and cohort feedback; and virtual synchronous meetings to promote cohort bonding and sense of community, sharing of learning, and opportunity for language use.

Taking into consideration the learner profiles and the notion of social presence, this design project explores the following three questions: 1) Can adults be motivated to learn a second language using self-teaching material with suitable opportunities for presentation, practice, production, and collaboration; 2) Can the probability of course completion of non-traditional, virtually delivered learning programs be increased when the aforementioned practices are meaningful for the learners; and 3) Can establishing a medium between e-Learning design principles and recent trends in second language acquisition theory affords an interactive and memorable experience for the learners.

In a recent article in the Guardian (Razzavi, 2014), Dr. John Schumann discusses his
Interactional Theory, which states that people are born with a motivation to become part of their species and learn language to achieve that goal. In Schumann’s book, *The Neurobiology of Learning*, this process is thoroughly explained. Schumann speaks to the concepts of Integrative and Instrumental motivation to learn. That is, the learning of one’s primary language is integrative—it is vital to survival and part of the brain is functional to maintain homeostasis, where the person’s body is kept within the range of mental and physical functions that insure survival and comfort. The desire to learn a second language can be integrative in immersive conditions or when one wishes to be part of a society or perhaps when one seeks camaraderie with an individual who speaks another language and is part of another culture. Most of the time, however, motivation is instrumental. Several motivations exist for today’s learner: to satisfy an academic requirement, to get a job, to obtain a specific skillset, or even if one thinks that it would be good to do (until one finds how much work it is).

In the design, the Learner Accountability Based Training (LABT), a software package, is implemented to attempt to move people from instrumental motivation (i.e., the desire to learn a language) to integrative motivation through a process of presentation, practice, production, posting for instructor feedback and cohort visibility, and group collaboration and cognition. The Spanish Headstart program developed by the Defense Language Institute (DLI) Foreign Language Center is used as the basic curriculum, and adapted to employ a communicative approach. The curriculum will be wrapped in a software package that will guide the learner through the prepared Headstart curriculum, provide enhanced language production and cohort feedback and communication opportunities, and, coupled with virtual asynchronous and synchronous feedback and communication, create a successful experience with language learning that is very likely to motivate learners to continue their studies.

The LABT software package contains capability to create video and audio presentations, exercises and response. It tracks where learners are in the problem. It provides the means for facilitators and learners to see and hear learner responses to exercises applying the material to be learned.

Communicative Language Teaching (CLT) is conceptualized as an approach to teaching and not necessarily a method, which would entail a clearly designed set of practices. CLT is often defined as a list of general features including: 1) the introduction of authentic texts into the learning situation; 2) the provision of opportunities for learners to focus, not only on language
but also on the learning process itself; 3) an enhancement of the learner’s own personal experiences as important contributing elements to classroom learning; 4) an attempt to link classroom language learning with language activities outside the classroom (Nunan 1991). The central praxis of CLT entails an emphasis on learning to communicate through meaningful interactions in the target language. The Spanish Headstart program introduces learners to domains of language used in daily communication that would be especially necessary to a person making their first trip to a Spanish-speaking country.

In Spanish Nivel Básico, each module is designed around preparation for communicative activities. The focus is on what learners should be able to do with the language, rather than stating grammatical or vocabulary objectives. Each module starts with an overview of the communicative objectives, and then moves on to structured input and structured output (mechanical, meaningful, and communicative). In this approach, it is generally expected that learners study grammar and vocabulary before arriving to class. To respond to this, each module exhibits a similar format to the following: communicative objectives, vocabulary review, grammar review, and then moves into structured input and output, with most time being dedicated to the communicative component. Mechanical input entails filling in the blank or matching. Meaningful input activities include completing a sentence or responding to prompts such as “What would you do?”, for example. The ‘communicative act’ is what brings the ‘linguistic tools’ (grammar and vocabulary) in to context by creating an opportunity for learners to engage in interaction and inquiry through mutual collaboration.

The Spanish Headstart curriculum being used provides support for communication. It introduces the student to vocabulary and works at a fill-in-the-blanks, multiple-choice level. It does provide for handwritten results and recording one's voice. The addition of LABT with the provision for submitting speech production, the asynchronous posting of that production, and the use of virtual synchronous meetings provide opportunities to prepare for communication that the technology of the Headstart program does not permit.

This learner collaboration is fostered by having learners post short recordings and personal glossaries to a virtual space, with facilitators and fellow students providing feedback. These activities occur after the student has performed the assigned task and step. With LABT, the learner may receive supplemental learning material and be tasked to use the language in a way that supports meeting the learning objective. In the case of our trial product, the learners
will be introduced to numbers, telling time and asking and giving directions.

This asynchronous communication will promote involvement, timely posting, and production of quality work, while at the same time accommodating learners’ busy schedules and providing a venue for facilitator and cohort feedback. Additional synchronous meetings, held each week, will promote bonding and idea creation (Stahl), and provide a platform for performance and imitation (Bandura). These weekly meetings will help mitigate learners’ potential feelings of isolation or frustration, and give an opportunity for knowledge creation, cohort bonding, and inquiry and sharing with respect to language and culture. A teacher, facilitator, or colleague may conduct these meetings. The facilitator may be learning along with colleagues (peer facilitation). It is intended that the facilitator preview the material and using the LABT software, create presentations that will guide the other learners through the process. It is in this context that Spanish Nivel Básico makes an initial attempt to coalesce e-Learning design principles and trends in second language acquisition (SLA) to enhance the learning experiences of language learners in the e-Learning context.

Learning need/market opportunity

As we see with MOOCs, and even with Rosetta Stone for which people pay $300-$500, there is generally a low rate of completion in independent study programs, particularly if they are free. In the military, people look at the Headstart products and want to use them and complete them, but daily priorities take over and, like “neat” tools purchased in a hardware store, the self-study program gets put on the shelf. In military units and in civilian and private sector jobs, even if bosses want the people to do such training, there is often no release time provided—so the intention is there, but completion remains out of reach.

The market need for the approach we are investigating is to develop a virtual envelope around material to be learned that increases the probability that people will complete a self-study program once they have started.
**Instructional goals**

Our goal is to demonstrate that adults can learn a language using group cognition methods, presentation and production, and social bonding without direct teacher intervention. After completing our instruction, the participants will be able to:

- Develop a basic foundation in Spanish.
- Start to approach the level of Novice (American Council of Teaching Foreign Languages. Novice level speakers can communicate short messages on highly predictable, everyday topics that affect them directly. They do so primarily through the use of isolated words and phrases that have been encountered, memorize, and recalled. Novice level speakers may be difficult to understand even by the most sympathetic interlocutors accustomed to non-native speech.
- Be able to function in areas such as greeting, polite commands in the civilian culture, ordering from a menu, being able to use numbers and tell time, give and receive directions, and, for military, know ranks, military courtesy and be able to conduct a basic conversation.

**General Goals**

The general goals of this project are:

- Apply this approach to all 22 Headstart Programs offered by DLI, and to any discipline.
- Examine an approach to deal with the MOOC challenge of retention and accountability by making a self-study program more interactive.
- Provide a means to improve traditional classroom instruction by using computers to deliver material and the synchronous virtual face-to-face environment to motivate and create positive accountability.

**Audience**

In our limited sample, the audience consists of eight volunteers interested in learning Spanish, learning languages, and participating in an online learning project. Locations of
individuals include Albuquerque and Rio Rancho, New Mexico and Carmel and Carmel Valley, California. Three of our pilot volunteers have studied Spanish previously, but all claim very little knowledge of the language at this time in their lives. The others have studied French, ESL or German. Educational background of the eight participants ranges from Bachelor’s degrees to multiple Master’s degrees and one PhD.

Future audiences of the LAB-T Spanish Headstart program will potentially include a wide range of mostly English speaking adults, motivated by the desire to acquire some basic Spanish. There may be cohorts of armed forces personnel with the prospect of service-related contact with Spanish speaking populations in their futures; there may be civilians with travel or work plans that will take them to Spain or Latin America, or who live in close proximity to Spanish speakers and hope to jumpstart the communication and learning process with an online class. Whatever their motivations may be, our audience is likely to be computer literate, have a mix of ages and educational and training backgrounds, and to have chosen, been recommended, or required to enroll in the LAB-T Spanish Headstart program.

**Delivery environment**

There is a need to have a system to monitor students who maintain they will have trouble finding sufficient time to participate in the program. Facilitators (members of the design team for the beta test, course teachers and leaders, supervisors) will keep close contact with these individuals to ensure they are positively motivated to stay with the program and complete it. In general, our students are very motivated. We must ensure that the interfaces do not inhibit participation or enjoyment of the program.

**Platform**

The delivery platform for our training will be the Learner Accountability Based Training (LABT) system. The system consists of presentation videos, practice exercises, speech production, and virtual posting. The system is scaffolded with individual mentoring and communication through telephone, Skype and Google Hangout. Delivery will be asynchronous, supported by weekly virtual synchronous meetings. Learners are further supported through virtual synchronous meetings held using Adobe Connect.

Instructional material is delivered through a link to the LABT server. Learners practice and study independently. They can post recorded speech and text products for viewing by
mentors and the learner cohort. During synchronous meetings in a virtual environment such as Google Hangout, Skype, or if available, Collaborate or Adobe Connect, all participants can share observations about the work they have posted and communicate lessons learned, as well as practice newly acquired vocabulary and pronunciation. These sessions will be mandatory for cohorts to insure that learners are actively participating, to give an opportunity for interaction and mutual assistance, and to provide an opportunity for language use.

Design

The system includes a login page, a place for presentation videos, and entry button to practice the material, a transition to a speech production point, and the capability to post speech production to a virtual space visible to the entire cohort. Synchronous virtual meetings are held independently of the LABT system.

Development

The basic system has been developed. In our design, the basic system is enhanced with videos providing direction on how to interface with the learning activities in the Spanish Headstart program. Tasks and steps are augmented with speech production activities/practical applications to evidence that skills have been learned. The speech production is posted to a virtual environment for facilitator and cohort feedback. Finally, virtual synchronous meetings are provided to give a sense of community and knowledge of mutual effort toward completing the program. The capabilities listed above are available to course participants. Prior to complete implementation, at least one individual participant will be walked through the system to provide information for necessary modification.

Implementation

As part of implementation, we need to develop student instructions for using the system. At the same time, we need to develop our approach to instructional presentation to ensure as high a degree of quality and uniformity as possible. During the implementation, we must stay in communication with the learners and be able to respond quickly to the need for revision.
General outcomes

After completing this instruction, learners will be able to:

- pronounce familiar Spanish sounds
- identify and react to simple questions
- identify single-digit numbers in written and spoken form
- identify time and related vocabulary
- identify the vocabulary related to giving and receiving directions and city landmarks
- in general, providing skills that enable learners to interact in a Spanish language environment

Assessment strategies

Beyond the completion of activities and mini-assessments built into the Spanish Headstart modules, students will also have the opportunity to produce spoken and written artifacts to upload to the LABT platform and demonstrate attainment of the above goals to classmates and tutors, as well as to interact using newly acquired language in the synchronous meetings. The tailored assessments we envision follow the proclivities and life experiences of learners. Devising assessments that relate directly to learners’ lives is a best practice in education. In the portion of the module dealing with numbers, for example, an assessment that asks students to recite basic equations as a way of practicing numbers will challenge their command of the single digits and pique their interests regarding larger numerals. Such an assessment will be simple, while at the same time relating both to work and daily life (shopping, counting things, etc.). Simple activities that require recitation of newly learned vocabulary will encourage students to practice on their own more often. The assessments require the learner to evidence that they are able to produce memorized responses in specific situations. In the case of our trial modules, learners will use numbers, telling time, and words relating to asking and giving directions from Spanish to English and from English to Spanish. These exercises provide the basic tools to develop communicative competence on the novice level.
Content organization

The content is contained in the Defense Language Institute Spanish Headstart2 program available at www.dliflc.edu/products site. Access is open to all. The Spanish Headstart2 program consists of 10 modules. Typically, each module consists of 2 tasks, each one comprised of 5-6 steps. For the purpose of this pilot, learners will interact with modules 2 and 3. The overall objectives for these two modules include Module 2: Learner will be able to identify single digit numbers in written and spoken form and Learner will be able to identify military time and related vocabulary; and Module 3: Learner will be able to identify the vocabulary about giving and receiving directions and city landmarks. Learner will be able to identify vocabulary related to basic means of travel and transportation.

Outline/Flowchart

Content sources

The content is contained in the DLI course. We will supplement that with assessment activities that will correspond to the Novice/0+ proficiency level and the content of each module. We will generate activities that expand the student’s knowledge of the language and culture.
Other content sources include:

- Media Expert
- Spanish Headstart program at DLI website

Course Outline for Spanish Headstart2: provides an indication of the breadth of skills that will be provided in the total program.

Mod 1: Intro to Spanish; Asking questions
Mod 2: Numbers, Telling time (used for this project)
Mod 3: Asking, giving directions; Travel (partially used for this project)
Mod 4: Military, Making appointments
Mod 5: Around the house, Commands
Mod 6: Color, Family
Mod 7: Describing people, Places and Climate
Mod 8: Human body, Medical procedures
Mod 9: Geographic features, Country specific maps
Mod 10: Making a purchase, Weapons

10 Modules of military related language

Certificate

**Instructional strategies**

Each learning event will have a video orientation and explanation (2-5 minutes). The student will perform the task presented by the curriculum. There will be a speaking production exercise applying the learning gained from the Spanish HS task. This speaking sample will be posted virtually for feedback from teachers and students. There will be a weekly “best practices” and communication virtual meeting to discuss usability, lessons learned and to develop a social bond among the participants. The virtual posting is a required element to permit the facilitator to monitor student progress and provide any necessary interventions (e.g., one on one help with pronunciation, reminders that assignments are due, etc.). The virtual “best practices” meeting is mandatory to develop a sense of community and group accountability and to provide opportunity for language use.
Second Language Acquisition Principles

In Spanish Nivel Básico, each module is designed around communicative objectives. The focus is on what learners should be able to do with the language, rather than stating grammatical or vocabulary objectives. Each module starts with an overview of the communicative objectives, and then moves on to structured input and structured output (mechanical, meaningful, and communicative). In this approach, it is generally expected that learners study grammar and vocabulary before arriving to class. To respond to this, each module exhibits a similar format to the following: communicative objectives, vocabulary review, grammar review, and then moves into structured input and output, with most time being dedicated to the communicative component. Mechanical input entails filling in the blank or matching. Meaningful input activities include completing a sentence or responding to prompts such as “What would you do?”, for example. The ‘communicative act’ is what brings the ‘linguistic tools’ (grammar and vocabulary) into context by creating an opportunity for learners to engage in interaction and inquiry through mutual collaboration.

This learner collaboration is fostered by having learners post short recordings and personal glossaries to a virtual space, with facilitators and fellow students providing feedback. This asynchronous communication will promote involvement, timely posting, and production of quality work, while at the same time accommodating learners’ busy schedules and providing a venue for facilitator and cohort feedback. Additional synchronous meetings, held each week, will promote bonding and idea creation (Stahl), and provide a platform for performance and imitation (Bandura). These mandatory weekly meetings can also help mitigate learners’ potential feelings of isolation or frustration, and give an opportunity for knowledge creation, sense of community development, and inquiry and sharing with respect to language and culture. It can be expected that trust and confidence will be built over time that will encourage learners to seek help from each other as well as from the facilitator. It is in this context that Spanish Nivel Básico makes an initial attempt to coalesce e-Learning design principles and trends in SLA to enhance the learning experiences of language learners in the e-Learning context.
Design Principles

**Facts: Rehearsal-practice and elaboration**

The fact strategy will be used first in this instruction because it is used to “recall a fact, state the definition of a concept, (and) state a rule” (Morrison, 153). In the instruction, students will be given Spanish language cues, as well as accompanying examples, and be required to take these cues and correctly use the language at the novice level. This is both a recall performance, to orient the learner, and an application. The "application performance requires the learner to apply the content to a new situation or problem” (Morrison, p. 143).

**Interpersonal: model, verbal and imaginal organization, and overt practice**

Once students have learned the basics of the language and have practiced its structure they should be able to perform the language functions presented at the novice level. “Interpersonal skills deal with the development of communication skills. Performance for interpersonal skills is either recall or application, with a primary emphasis on application” (Morrison, p. 163). Our model provides the introductory skills necessary for further application and consequent reinforcement through learner-learner interaction and eventual immersion opportunities or contingencies.

**The Multimedia Principle**

Mayer (2009) wrote: “People learn better from words and pictures than from words alone” (p. 6). In foreign language learning, repeated use of vocabulary and grammatical points leads to their acquisition by the learner. The immediate feedback needed at this stage in language acquisition can be delivered most efficiently by using the dual modes of visual and auditory communication. Multimedia drills sidestep the problem of delayed or absent feedback on learners’ grammatical errors—whether they be in a classroom or in authentic communication with target language speakers—while still providing interactivity and dual-mode cognitive input for learners. Our project adds this capability to a prepared curriculum that relies on “drag and drop” and multiple-choice responses. The intent of this project is to develop a more active learning approach through increased speaking, feedback and interactive opportunities.
The Segmenting Principle

Mayer (2009) wrote: “People learn better when a multimedia message is presented in user-paced segments rather than as a continuous unit” (p. 175). This multimedia instruction leads the learner down the paths of three modules from the Spanish Headstart program, each with examples and exercises along the way. Progress through the training can be made at the learner’s own pace. Examples and exercises can be revisited for review as necessary.

The Personalization, Voice and Image Principles

Each module is presented with an introductory video. Use of the personalization, voice and image principles will encourage students to feel connected to the training. The friendly, conversational tone of the video will help to put learners at ease and encourage them to pay attention and keep trying.

The Signaling Principle

Mayer (2009) wrote: “People learn better when cues that highlight the organization of essential material are added” (p. 108). In this instruction, signaling will highlight the language concepts for learners, and provide a starting point and outline for drills and simulated communication exercises designed to promote automatization of the Spanish language cues. Visual and vocal emphases on the language cues persist throughout the training, keeping learners cognizant of the objectives.

The Coherence Principle

Mayer (2009) wrote: “People learn better when extraneous material is excluded rather than included” (p. 89). In order to focus the learner’s attention on the Spanish language cues, we will be careful to avoid any unnecessary graphics, sounds and words in this multimedia training product. There is no soundtrack other than the introductory videos, and graphics are only included during the instructional portions of the training to assist the learner in comprehending the meaning of sample sentences. Throughout the instruction, the layout of sentences is clear and unimpeded by audio or graphic intrusions. Exercises provided with each Spanish Headstart task and step require the student to use the language in connection with the domains being taught. In the case of usability testing for this project, students will work with numbers, telling time, and
asking and giving directions. Similar exercises of increasing complexity will develop the student’s usable vocabulary and the ability to participate in structured dialogs. Virtual postings of student production and weekly synchronous meetings to apply what was learned will provide a foundation for further developing communicative competence.

Learner support

This will be a Group Cognition activity as envisioned by Stahl (2006), where the teachers/tutors/mentors/facilitators are learning along with the students. By design, the LABT program enhances and supports the learning of foreign languages through the DLI’s Spanish Headstart by adding a sense of community and supplementary materials and activities. Tutors and facilitators can be military leaders, supervisors, unit members with prior language experience, or even paid teachers. LABT software provides a means for whoever is designated to get the cohort through the program to design the necessary explanatory videos and practical applications. The facilitators can be required to perform the function, or if funds are available, teachers can be hired. This type of training takes 80-100 hours and would be part of general qualifications or to meet specific mission requirements.

Each cohort’s journey through the Headstart software can be tailored to suit its members. Information about a cohort can affect facilitator decisions about assessment, selection of supplementary materials and general pacing of the course. For example, five of our eight volunteers for the pilot program are educators. With this in mind, our modules could include education-related perspectives and materials that apply to the lives of the majority of our learners. Since the Spanish Headstart was designed to support the military learner, exercises will support using military skills and participating in military conversations. The LABT construct allows facilitators to modify the application exercises to fit domains of language use the cohorts will encounter.

Internet access and a computer for downloading and operating the courseware, and completing inquiry activities using Google, Bing or other search engines, is required. Students will initially be walked through the program in a synchronous online meeting or telephone conference. This introduction will give learners the opportunity to experience a Headstart exercise with assistance/modeling before going on to complete more exercises on their own.
Ongoing learner support will be provided through asynchronous posting, and the optional Adobe Connect virtual meeting every week. This support could include dealing with the technology, providing additional cultural information, or giving feedback with respect to learner input. Students will also have the option of communicating any and/or all concerns with the facilitator/tutor/mentor group members by email or telephone throughout the program.

**Standards**

Our learner analysis has identified there are no accessibility issues and/or disabilities/special challenges among our learners. Learners are expected to be mostly military and meet the physical and mental standards required. For learners with disabilities, instruction must be modified to meet Americans with Disabilities Act (ADA) and reasonable accommodation requirements. These adjustments may have to be met with other approaches such as face-to-face instruction or the use of other types of learning materials.

**Media**

The instructional program will have a web-based delivery system. DVD delivery is also possible.

Other media types include:

- YouTube videos
- MP4 video files
- MP3 audio files
- Images

**Evaluation plan**

*Formative Evaluation*

Our formative evaluation will be conducted throughout the instruction in order to improve the learner’s performance. Testing and assessment activities are included in the Spanish Headstart2 Program. Additionally, our videos and assessment activities are intended to lead learners into the zone of proximal development, thus providing for formative assessment. For
the assessments, instructor feedback as well as peer feedback will be provided.

**Summative evaluation**

While we will not conduct a proficiency examination upon our participant’s experience with two modules, total program completion could lead to an ACTFL or DLI proficiency examination in reading, listening and speaking. The Defense Language Proficiency Test is available to test reading and listening. The DLI Oral Proficiency Interview, the ACTFL OPI, and the ACTFL Telephonic Interview are available to test levels of proficiency achieved. Summative evaluation will also include review of student input and student responses to an end of program survey. The results of student input and responses will feed back into system revision and design. The detailed evaluation plan is attached in Appendix D.

**Overall interface and navigation**

The interface will be provided through the Learner Accountability Based Training (LABT) software. The LABT structure acts as a container for the prepared curriculum and enables the expansion of learning outcomes by providing additional training and educational capability. Learners will sign in using their email address and self-generated password. Learners will enter the program upon registering. Registration will build the student profile. The page encountered on entry will have an introduction and provide for entering the program. Upon entry, each task as provided by the Spanish Headstart program will be preceded by an introductory video. The learner will then open the Headstart and complete the task and steps assigned. Upon completion of the task, there will be an assessment requiring a spoken input that will be recorded. Learners may review the input, after which they will submit the product. The product will be posted to virtual space on the LABT server where it will be visible to the facilitator and all learners in the cohort. Feedback will be provided by email, use of Google Hangout and through periodic virtual synchronous meetings. The virtual synchronous meeting space will be outside the LABT interface, on Adobe Connect or other virtual meeting spaces. Instructions to learners on interfacing with Adobe Connect and with Google Hangout will be provided. The project usability test and results are attached in Appendices A and B.
Development tools

The Spanish HS2 program contains all the learning material. This program will be encased in the Learner Accountability Based Training (LABT) software environment developed by Mr. Alexander Smith, Albuquerque. LABT achieves what Audacity and Coursera accomplish: delivery, learner interaction and production, and facilitator monitoring of student progress.

LABT is made up of two primary components, an installed application for trainees and a web-based system for administrators and instructors. Facilitators and learners with accounts can download the trainee application, install it, and login. Login credentials are verified on the admin webserver allowing trainees to work from anywhere they have an Internet connection. The application and the admin server work together to track progress so that each user can logout and later login again picking up where he or she left off.

The LABT Content Authoring Tool gives instructors an easy way to create content for training applications. It allows for the creation of lessons, exercises, and quizzes for course modules. During the process of creating content, instructors can preview what trainees will see when using the trainee application. After the content is complete, instructors export the packages through Dropbox to the LABT developer (Mr. Alexander Smith, Albuquerque) for publication.

The developer links the LABT teaching package to the prepared Spanish Headstart curricula. The learner works through the video, the prepared curricula, a production exercise, and submits products that include speech production, quizzes, and tests to the LABT server. The products will be visible to facilitators and learners for feedback, best practice sharing, and cohort bonding.

LABT is sequential. All components must be completed to advance in the LABT sequence.

Primary Functions of LABT

The primary functions of the Content Authoring Tool are as follows:

- Easily create a content package for quizzes.
- Easily create a content package for the LABT course modules.
- Easily create a content package for the LABT testing modules.
• Allow for formatting of text using a standard set of formatting tools.
• Help content authors visualize what learners see.
• Provide a method to validate that content is ready for publication.
• Allow for the creation of content in multiple languages so that learners see different content depending on their language selection.
• Give the ability to export a project in order to share it with other facilitators or with a software engineer who can publish the content.

Technologies

The LABT admin web site requires the Apache webserver with PHP and a MySQL database. The installed SSL certificate will allow login information to be encrypted when logging in from both the admin system and the trainee application.

The trainee application uses Java so that it can run on Mac OSX as well as Microsoft Windows. The integrated Headstart content requires Adobe Flash.

A Java applet on the LABT allows facilitators to assess learner audio submissions.

Delivery platform

The LABT content will be delivered to facilitator and learner computers using standard browsers including Safari, Firefox, Internet Explorer, Google Chrome or any browser. Mr. Alexander Smith will provide technical support. The Headstart content will be accessed through the LABT application, which is connected to the Personal Lexicon at http://www.personal-lexicon.com/SpanishHS/course/index.html?spanish. The LABT application, stored on the facilitator and learner computers, will install all other content, e.g., videos, quizzes, etc. Learner production will be submitted from the learner computer to the LABT server for review by facilitators and learner cohort. Standard Internet and computer configurations are all that are necessary. The detailed architecture and student site map are in Appendix E.
Usability

This pilot course provides an opportunity to test both Nivel Básico and the LABT software through which it is facilitated. As such, the pilot will be subject to several types of usability testing, to answer questions essential about ease of use of the software, relevance of primary and supplementary contents, whether the speed of delivery and all activities and features are suitable for the tasks and audience at hand.

To answer these questions, we will employ the following usability assessment tools:

- Entry questionnaire about learner demographics
- Facilitator journals to track questions, problems or ideas that relate to the LABT software
- Pre-and post-tests of learners to gauge progress toward Spanish language objectives
- Exit survey: summative questionnaire to evaluate usability and content of the program, as well as sense of community among participants
- Task completion data (compiled through the LABT software)
- Quality checklists for content, assessments and communication

Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat./Sun., April 5 or 6</td>
<td>Synchronous orientation meeting for all participants</td>
</tr>
<tr>
<td>Monday, April 7</td>
<td>Start Spanish Headstart2, Module 2, Task 3: Numbers</td>
</tr>
<tr>
<td>Wednesday, April 9</td>
<td>Conclude Numbers</td>
</tr>
<tr>
<td>Thursday, April 10</td>
<td>Start Module 2, Task 4: Telling</td>
</tr>
<tr>
<td>Saturday, April 12</td>
<td>Conclude Telling Time</td>
</tr>
<tr>
<td>Sunday, April 13</td>
<td>Start Module 3, Task 5: Directions</td>
</tr>
<tr>
<td>Tuesday, April 15</td>
<td>Conclude Directions</td>
</tr>
<tr>
<td>Wednesday, April 16</td>
<td>Synchronous Exit Interview/Debriefing Session; Exit survey</td>
</tr>
</tbody>
</table>
Sustainability

The LABT software is proprietary. The designer maintains it. During this project, the designer has responded to inputs from the members of the group as we have worked our way through the design philosophy, the learner analysis and the development of design document. The overall goal is to create a software package that can be used to deliver training and instructional material quickly and cheaply.

The LABT software acts as a container and pedagogical enhancer for existing and tailored curricula allowing expanded learning opportunity. For this project, we are using the Defense Language Institute Foreign Language Center Spanish Headstart material. There are 21 other Headstart languages posted on the DLI web site to which our model could apply. With tailoring, it could be used to meet a wide range of training needs.

In summary, as LABT is adapted to different training requirements, new capability will be added based on usability experience, lessons learned and the collection of best practices information. At this point, LABT represents an economical, efficient approach to achieving on a smaller scale what Udacity, Coursera and EdX deliver with their proprietary technologies. Our overall concept, which includes virtual synchronous meetings, adds a dimension of accountability and social interaction missing from the MOOC concept.
References


Appendix A: Usability Test Report (Revised)

Learner Based Accountability Training (LABT) – Spanish Nivel Básico

Defense Language Institute Spanish Headstart2:

http://www.dliiflc.edu/products

Executive Summary

During the period April 9 through 16, 2014, usability testing was conducted on the design project Español Nivel Básico. The research questions for this project were:

1. Could adults be motivated to learn a second language using self-teaching materials?
2. Would the probability of course completion of non-traditional, virtually delivered learning programs be increased through fostering of a sense of community and community accountability, and through inclusion of supplementary materials and requirements for language production shared with the cohort?, and
3. Could a second language be taught combining e-learning and second language acquisition theory?

The program used the Learner Based Accountability Training system to present the Defense Language institute Foreign Language Center Spanish Headstart program to eight volunteer learners. Five of eight initial participants participated and responded to our end-of-course survey.

In general, we can conclude from survey results that the approach has merit and succeeded with respect to all three research questions, with one person completing the three tasks and others participating to varying degrees. From use of the Spanish Headstart, it is clear that applications such as learners making statements using numbers, telling time or giving directions that requiring require production are necessary to meet Headstart objectives of reaching novice-low levels of proficiency. Log on, registration, instructions, and navigability need major improvement with respect to integration with the Headstart program.
Users were positive (at least four of five good or excellent ratings) concerning the following:

a. Explanation of purpose and structure
b. Statement of knowledge and skills needed to participate
c. Statement of technical skills required
d. Instructor introductions
e. Measurability of course outcomes
f. Module and unit objectives consistency with course objectives
g. Statement of learning objectives from the learner perspective
h. Clarity of instructions on meeting objectives
i. Appropriateness of objectives with respect to the supplementary course materials
j. Course resources contribution to meeting course objectives and module/unit objectives
k. Explanation of how our resources were to be used and their contribution to meeting objectives
l. Referencing and citing of course resources
m. Currency of course resources
n. Contribution of activities to meeting learning objectives
o. Contribution of activities to promoting interaction and active learning
p. Statement of methods of communicating with instructors and obtaining feedback
q. Statement of requirements for learner-learner and learner-instructor interaction
r. Instructions on how to get technical support

Areas showing a clear degree of dissatisfaction were:

a. Clarity of directions on how to start and where to find resources
b. Ability of assessments within the Headstart program to measure learning objectives
c. Capability of objectives to be met with course resources
d. Video and software support of course objectives
e. Ability of course resources to promote student engagement, motivation and guide learners to active learning
f. Navigation required being intuitive, logical and easily learned

Two major areas surfaced. Learners could enter the video and application interface, view short presentations on the task, and step to be covered in the Headstart program. However, upon
opening the Headstart program and doing the task and steps, they could stay in the program to completion without returning to the presentation and application modes. They would then find themselves “lost” in the program. The issue here was that we could not modify the Headstart program to force a return to the instructional sequence. Three learners and one instructor encountered this problem.

The second area was the content of the Headstart program. It was very passive, multiple choice, drag and drop that did not involve language production. The steps were repetitive across modules, tasks and steps. Thus, a major gap existed between the instructional applications that required speech production and the Headstart materials.

The Defense Language Institute intends to modify the Headstart program. We will provide this information to them to inform development of a more active learning approach.

We learned enough from the input of the participants to verify that enough experience was gained to learn that the approach of presenting, practicing, producing and posting asynchronously, and participating synchronously, could work well. In one instance, a learner completed all of the Headstart activities and the supplemental activities leading to speech production. Two other learners posted recordings for at least one activity. Interaction in synchronous sessions was very positive and rewarding to all—with at least one person experiencing Adobe Connect for the first time, expressing surprise that such a presence could be achieved without people being in the same room.

In summary, the programs and approach are usable. Future integration with Headstart programs will require much greater clarity of instructions, a better approach to course registration, and, if possible, a means to move easily out of the Headstart program back to the presentation, application and production modes. Good point.

**Project Goals**

The purpose of the project was to develop an approach to a self-study language program that would examine the three questions:

1. Adults can be motivated to learn a second language using self-teaching material with suitable opportunities for presentation, practice, production, posting and collaboration;
2. The probability of course completion of non-traditional, virtually delivered web-based learning programs can be increased when the aforementioned practices are utilized to clarify procedures and provide practice consistency with the intended objectives of the course for the learners;

3. Establishing a medium between e-Learning design principles and recent trends in second language acquisition theory affords an interactive and engaging experience for the learners.

In the design, the Learner Accountability Based Training (LABT) system, a software package, was used to attempt to move people from instrumental motivation (i.e., the and externally imposed requirement or a general desire to learn a language) to integrative motivation (i.e., where the learner truly wants based on their own need and inner motivation) through a process of presentation, practice, production, posting for instructor feedback, cohort visibility, and group collaboration and cognition through the conduct of synchronous meetings.

The Spanish Headstart program developed by the Defense Language Institute Foreign Language Center was used as the basic curriculum, and adapted to employ a communicative approach. The curriculum was wrapped in the LABT software package intended to guide the learner through the prepared Headstart curriculum, provide enhanced language production and cohort feedback and communication opportunities, and, coupled with virtual asynchronous and synchronous feedback and communication, create a successful experience with language learning that would be very likely to motivate learners to continue their studies.

Methodology

To test usability of the approach, we used three tasks of the Spanish Headstart:

- learning numbers
- telling time
- asking for and giving directions

These tasks were accompanied with video instruction and speaking application exercises. The audience consisted of seven volunteers, six female and one male. The participants downloaded the LABT software to their desktop and created a login and password to access the system and track their progress.
As an additional instructional strategy, we scheduled a synchronous orientation session with all the participants to address any initial concerns, to demo the download process, and to model the first activity.

After allowing the participants to complete the activities, we conducted a final synchronous meeting to debrief about the participants experiences, collect their feedback and impressions, and to start formulating strategies for future improvements. Both sessions were conducted using Adobe Connect.

Finally, we sent the participants an exit online survey that served as an assessment of issues associated with the interface and the design of the learning exercise. The survey gauged their overall satisfaction, the ease of use of the interface, and collected any additional comments that might arise.

### Learners

The two most active volunteer participants in this pilot turned out to be Alan and Lydia (names have been changed), both of whom had expressed concern about being able to dedicate or manage the time required for an online course. Their particular interests in the program, which manifested in enhanced interaction and thorough feedback, are a direct result of their personal motivations.

Lydia has extensive experience in language education, and first-hand knowledge of the difficulties of retaining foreign language students online at the university level. Her experiences and the realities of her career and background motivated her to donate precious time to piloting a language training program—in a language she could already read, if not speak, fluently. Her comments tell us that the interpersonal opportunities to use Spanish in this Nivel Básico course are insufficient. The training consists of a set of interpretive activities. We have still not succeeded in moving it beyond a simple self-study program to one with a true sense of group cohesion.

Alan’s career in computer and engineering training, and his appreciation of “discovering why something worked or did not work” motivated his meticulous review of the software in this pilot program. His testimony tells us that, while the software and the methodology are good, there remain a few issues with functionality and instructions to be resolved. The biggest problem was confusion, once learners entered Headstart, as to whether they needed to continue inside that
Headstart program itself, or continue navigating through LABT. Some other issues pointed out by Alan include the inability to change font size; a problem with Flash pop-ups; and possibly an insufficient set of directions for how to use the program at the outset. Other learners experienced similar difficulties and expressed similar thoughts about the pilot program. More thorough technical instructions for navigating the program are necessary, and more opportunities to interact with other learners would be beneficial.

Overall, it is clear that the intrinsic motivation of learners predicates their success in completing the program. In the case of an army or Peace Corps or other such cohort preparing for deployment abroad, the motivation would likely be both intrinsic and extrinsic. Learners would feel the imperative to command at least some basic vocabulary in the language of their destination. Moreover, in many cases, they would be required to complete some individual training in preparation (at least in the case of the armed forces). When Headstart is employed as a training program, the LABT-based wrap-around method developed for this pilot would improve retention rates by providing mentor assistance and oversight, and a sense of community among the cohort of learners and mentors. Judging by the feedback from this pilot, such a wrap-around approach is indeed helpful when engaging in a self-study program such as Headstart. It is our hope, as the developers of this approach, that the upcoming version of Headstart will offer better, more interactive opportunities for practicing basic Spanish. The LABT-Headstart method of advancing through self-study language software as a cohort with guidance from mentors has room for improvement, but is a solid framework for application in specific contexts, such as a military unit preparing to deploy, or with small groups preparing over a short period to travel to an area for business or recreational purposes.

**Procedure**

Each of the three units (numbers, time, and directions) consisted of five or six tasks. The facilitators developed instructional videos introducing each of these tasks and giving the learners further instructions on how to complete them. After that, the learners completed a practice exercise where they had the opportunity to record their own voices using the target language. After submitting their responses, the students had the opportunity to review their own answers as well as the answers of the other participants. On the other side, the facilitators used their instructor access to view students’ submissions, to leave comments, and to provide feedback. A
similar procedure was used in the initial synchronous orientation session, where the facilitators walked learners through the process of downloading and using LABT by using the screen-sharing feature on Adobe connect.

**Usability Evaluators’ Profiles**

Don Fischer’s background in the Armed Forces and his experience promoting face-to-face as well as distance language learning programs were the wellspring from which the idea for this pilot sprang. Don’s connection with Alexander Smith, a software developer based in Albuquerque, NM, led to the concept of a LABT wrap-around course for the Headstart language learning software. By giving Headstart a “human touch” using LABT, Don posited that the course could be made more approachable, more enjoyable, and easier to complete for learners of basic Spanish or any other language offered through the Defense Language Institute’s Headstart initiative. This hypothesis was put to the test through the pilot of Spanish Nivel Básico.

Felipe Amaral is a linguist and Multimedia Assistant at the Office of Graduate Studies at the University of New Mexico. His experience in developing online training positioned him as an invaluable resource for the technical and multimedia side of this project. He ran our synchronous meetings through Adobe Connect, and his contributions to the final unit of our training pilot were enhanced by his knowledge of Spanish.

Ariana Koers is a Chinese language teacher at the high school level. With seven years of experience in the classroom, her instructional style and skills are well developed. Ariana’s awareness of the importance of effective communication and of drills for retention of information contributed to the approach she took in developing the informational videos and the practice exercises for the first unit in the pilot (numbers). Subsequent units were modeled on her presentational style.

Michael Woods also made significant contributions at the planning stage of this project. He is an online Spanish instructor in Oregon, fully versed in the theory and practice of online learning. His expertise in the Spanish language would have been a valuable asset during usability testing, and the group was counting on him to some extent as a content matter expert. Unfortunately, he was unable to see the project through to the usability testing stage due to personal and work-related obligations.
**General Observations**

The data below was compiled through our exit survey. The URL is: [https://goo.gl/aLyFV8](https://goo.gl/aLyFV8)

Five participants provided the information used to develop the table below.

Acronyms:
HCI: Human-Computer Interaction  
LABT: Learner Accountability Based Training  
WIP: Work In Progress  
N/A: Not Applicable

<table>
<thead>
<tr>
<th>HCI Criteria</th>
<th>Yes/Work in Progress/Not Applicable</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI Roots and Shared Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface design should be based on what intended users want to do at the site</td>
<td>Yes</td>
<td>This was achieved. Usage showed that there were issues in the connection between the training software and the curriculum.</td>
</tr>
<tr>
<td>Testing with users should begin early, using mockups and prototypes if necessary</td>
<td>Yes</td>
<td>Beta testing began as soon as teaching materials were developed and provided to the software developer.</td>
</tr>
<tr>
<td>User testing of the whole site in its complexity should begin as early as possible</td>
<td>Yes</td>
<td>Beta testing began as soon as teaching materials were developed and provided to the software developer.</td>
</tr>
<tr>
<td>Ease of learning</td>
<td>WIP</td>
<td>Download procedures, connection between teaching aids and the curricula were problematic for some users. For the synchronous meetings, Safari and Chrome browsers showed audio connectivity problems.</td>
</tr>
<tr>
<td>High speed of user task performance</td>
<td>WIP</td>
<td>Course and navigation instructions need to be improved. Integration of the web-based Headstart needs to be worked on, or clearer instructions on sequence have to be given.</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Low user error rate</td>
<td>WIP</td>
<td>At least one participant completed all the tasks, steps, applications and postings without serious issues. She is a French instructor at the University of New Mexico. All others had issues of time, starting the project, life priorities and apparently, motivation to begin and complete.</td>
</tr>
<tr>
<td>Subjective user satisfaction</td>
<td>Yes</td>
<td>During the synchronous meeting, users gave very positive comments and excellent suggestions for improvement.</td>
</tr>
<tr>
<td>User retention over time</td>
<td>Yes</td>
<td>While participants were at various stages of completion, they all were still in the program or had finally started.</td>
</tr>
</tbody>
</table>

### Emerging constraints on instructional web site development

<table>
<thead>
<tr>
<th>Pressure to have instructional sites operational quickly</th>
<th>Yes</th>
<th>Time constraints and deadlines led to quick fielding that led to quick feedback. Design of the software and integration of the Headstart curriculum in a two-month period was a significant accomplishment. Feedback obtained from this effort will lead to faster implementation of the concept.</th>
</tr>
</thead>
<tbody>
<tr>
<td>De facto standards: users expect controls at any site to work consistently with</td>
<td>Yes</td>
<td>We all have high expectations, thus the need for a usability test of this type. Poor navigation features and unclear instructions</td>
</tr>
<tr>
<td>Windows and/or browser controls they already know</td>
<td>inhibit learning and degrade learner support and motivation.</td>
<td></td>
</tr>
<tr>
<td>Developers may have to work within existing course management systems (e.g., WebCT, Blackboard)</td>
<td>N/A</td>
<td>The LABT software is a learning management system that offers tracking of students. The question of integration into a larger LMS needs to be addressed.</td>
</tr>
</tbody>
</table>

### Interface Evaluation Factors Unique to Online Learning Environments

| Speed of task performance is not necessarily a concern | Yes | User feedback will serve to direct efforts in this area |
| Subjective measures of user comfort may be more important, given the need for the user to stay engaged with the site for relatively long periods of time. | Yes | User feedback will serve to direct efforts in this area |
| The user shares control with the instructional designer as to what pages are accessed in what order. | Yes | User feedback will serve to direct efforts in this area |

### Critical Standards for Instructional Web Site Interfaces

| Transparency: the user should not have to think about how to get to where s/he wants to go or how to accomplish what s/he wants to at the site | WIP | Navigation and instructions need work. |
| The interface should ideally support the kind(s) of cognitive processing critical to meeting course objectives. | WIP | It was apparent that people could work through the exercises, complete the program and learn some Spanish. However, videos and instructions must be made clearer. |
The interface should help the user stay oriented in cyberspace

<table>
<thead>
<tr>
<th>Use of checklist (heuristic) during the design process</th>
<th>Yes</th>
<th>Multiple checklists were used. However, the experience revealed what was behind the checklist items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of target participant interviews</td>
<td>Yes</td>
<td>Used two Adobe Connect meetings to get participant input</td>
</tr>
<tr>
<td>Use of participant response form</td>
<td>Yes</td>
<td>A survey was created. Input from the survey informs the usability analysis</td>
</tr>
<tr>
<td>Usability testing</td>
<td>Yes</td>
<td>A usability analysis is being conducted</td>
</tr>
</tbody>
</table>

Use of a Design Heuristic

| Based on “best practices” identified in literature     | WIP | Such a design heuristic would have been very useful in the setup process                         |
| Helps designers and evaluators develop shared expectations | WIP | Such a design heuristic would have been very useful in the setup process                         |
| Serves as design aid                                   | WIP | Such a design heuristic would have been very useful in the setup process                         |

Usability Testing

| Structured approach (vs unstructured, spontaneous reaction to site) | Yes | Participants completed designated tasks and were guided through the tasks and steps.             |
| Interactions with site and researchers and with other participants | Yes | Participants and facilitators have provided inputs on the challenges encountered                 |
| Observation: Paths chosen by participants through the site | WIP | We found that participants could deviate from the intended path. We are investigating possible actions to prevent that. |
| Observation: Which controls seemed to work smoothly and which did not perform as participants (and designers) expected | WIP | Downloading worked well. Moving from the Headstart program back to the teaching aids was a problem for some. |
| Transcription of participant comments: Likes | Yes | Participants liked the videos. They were glad they were there to support the Headstart. The exercises were fun. It seemed that participants learned some Spanish. |
| Transcription of participant comments: Complaints | Yes | Browsers generated challenges. Safari and Chrome did not work well. There were also issues with Firefox and Internet Explorer. It was possible to remain in Headstart and continue beyond the steps in the teaching/scaffolding aids. |

**Use of Interface Reaction Survey**

| Yields date for quantitative analysis | Yes | A usability survey has been created. Responses are due Monday, April 21 |
| Allows users to respond anonymously | Yes | Awaiting and analyzing input |
| Allows for examining specific site features of interest (e.g., navigability) | Yes | Awaiting and analyzing input |

**Focus Group Interview**
<table>
<thead>
<tr>
<th>“Debriefing” the usability test participants experience of working with the site</th>
<th>Yes</th>
<th>Debriefing was accomplished over Adobe Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarifying what participants like and dislike about the site</td>
<td>Yes</td>
<td>The Adobe Connect meeting provided necessary input</td>
</tr>
<tr>
<td>Estimating whether participants will or will not use parts of the site (e.g., willing to download plug-ins for specific features; issue of multiple log-ins and effect on navigation)</td>
<td>Yes</td>
<td>The combination of emails and synchronous orientation and meeting indicated strong participant support, which was achieved.</td>
</tr>
<tr>
<td>Identifying any functions users want that are not provided at the site (e.g., ease of printing)</td>
<td>Yes</td>
<td>Participant input will shape future versions.</td>
</tr>
</tbody>
</table>

**Items Covered in Design Heuristic**

<table>
<thead>
<tr>
<th>Navigability</th>
<th>WIP</th>
<th>The testing of the site by participants has validated the need for a Design Heuristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text readability</td>
<td>WIP</td>
<td>The testing of the site by participants has validated the need for a Design Heuristic</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>WIP</td>
<td>The testing of the site by participants has validated the need for a Design Heuristic</td>
</tr>
</tbody>
</table>

**Ways Interface Can Support Cognitive Processing**

<table>
<thead>
<tr>
<th>Provide outline of content as framework for learning</th>
<th>Yes</th>
<th>A syllabus of the exercise was provided. A visual progress bar shows where the participant is in the sequence of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead users through sequence of learning tasks</td>
<td>Yes</td>
<td>The teaching aids led participants through the process. Work has to be done to reduce</td>
</tr>
<tr>
<td>the likelihood that learners will become detached from the teaching program.</td>
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</tbody>
</table>
Conclusions

In general, our conclusions are, based on learner feedback that:

**Research question 1:** Adults learned novice-level language and were motivated by the combination of teaching aids and the Headstart curriculum.

**Research question 2:** Participation in the course was steady. However, issues with the interface hindered participation. Participants were positive, however, our instruction sequence and the interface between the teaching aids and the Headstart material had unexpected disconnects discovered as the volunteers used the software. These issues are correctable and this test served to uncover the difficulties before using this combination with larger numbers of people.

**Research question 3:** The use of the training aids, plus the Headstart and virtual asynchronous and synchronous opportunities provided a unique experience for the participants, especially the virtual synchronous sessions over Adobe Connect. Due to the shortness of the period of course participation, we did not develop collaboration exercises in learning and applying the concepts and engaging in culturally related activities (such as Webquests and gathering information about Columbia and other Spanish speaking countries). The collaboration element related to sharing lessons learned with respect to the LABT program and the Headstart curriculum.

The site as created was usable and resulted in learning. However, the testing showed that modification is necessary if large numbers of learners are to be supported and if there is to be a high assurance that learning goals and objectives are met.
Appendix B: Usability Testing Protocol

The URL for this survey can be found at the following link: https://goo.gl/j05fGT

<table>
<thead>
<tr>
<th>Questions</th>
<th>Unsat.</th>
<th>Poor</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Directions are clear on how to start and where to find course resources.</td>
<td></td>
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<tr>
<td>2. The purpose and structure of the course is explained.</td>
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<tr>
<td>3. Knowledge and skills needed to participate are clearly stated.</td>
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<td></td>
</tr>
<tr>
<td>4. Technical skills required are clearly explained.</td>
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<tr>
<td>5. Instructor introductions are appropriate and available to the learner.</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>6. Learners have the opportunity to introduce themselves to each other.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Course objectives and outcomes are measurable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Module and unit objectives are measurable and consistent with course objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Learning objectives are clearly stated from the learner perspective.</td>
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<td></td>
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</tr>
<tr>
<td>10. Instructions on meeting objectives are clear to the learner.</td>
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<tr>
<td>11. Learning objectives are appropriate for the course material.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Assessments measure the learning objectives and can be met with course resources.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Course resources contribute to meeting course objectives and module/unit objectives.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. How the course resources are to be used and how they contribute to meeting course objectives are clearly explained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Where necessary, course resources are appropriately referenced and cited.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Course resources are current.</td>
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<td>17. Activities contribute to meeting learning objectives.</td>
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<tr>
<td>18.</td>
<td>Activities promote interaction and active learning.</td>
<td></td>
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<tr>
<td>19.</td>
<td>The methods of communicating with the instructors and obtaining feedback are clearly stated.</td>
<td></td>
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<tr>
<td>20.</td>
<td>Requirements for learners to interact with each other and instructors are clearly stated.</td>
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<tr>
<td>21.</td>
<td>The software and videos provided support course learning objectives.</td>
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<tr>
<td>22.</td>
<td>Course resources promote student engagement, motivation and guide the learner to active learning.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>23.</td>
<td>Navigation required is intuitive, logical, and is easily learned.</td>
<td></td>
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<tr>
<td>24.</td>
<td>Course instructions inform the learner on how to get technical support.</td>
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</tr>
<tr>
<td>25.</td>
<td>Additional comments</td>
<td></td>
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</tbody>
</table>
Appendix C: Outlines of Usability Test Modules

Module 2, Task 1: Numbers

1. Instructional goal
   1.1. Identify single digit numbers in written and spoken form.

2. Objectives
   2.1. To become familiar with numbers in Spanish through transcription.
   2.2. To practice recognition of numbers in Spanish.
   2.3. To practice numbers in Spanish through partial transcription in phrases.
   2.4. To become familiar with numbers in conversation.
   2.5. To aurally identify Spanish numbers in conversations.

3. Outline
   3.1. Step 1: Transcription
      3.1.1. Introductory Video (Video Introduced Webpage)
      3.1.2. Video Lesson
      3.1.3. Sight Translation Exercise
   3.2. Step 2: Word Recognition in Short Phrases
      3.2.1. Introductory Video (Video Introduced Webpage)
      3.2.2. Video Lesson
      3.2.3. Sight Translation Exercise
   3.3. Step 3: Partial Transcription
      3.3.1. Introductory Video (Video Introduced Webpage)
      3.3.2. Audio Lesson
      3.3.3. Sight Translation Exercise
   3.4. Step 4: Phrase Sequencing
      3.4.1. Introductory Video (Video Introduced Webpage)
      3.4.2. Video Lesson
      3.4.3. Sight Translation Exercise
   3.5. Step 5: Conversation Completion I
      3.5.1. Introductory Video (Video Introduced Webpage)
      3.5.2. Video Lesson
      3.5.3. Sight Translation Exercise

4. Resources
   4.2. Learner Accountability Based Training (LABT) Software

5. Active Learning Strategies
   5.1. Scenarios
5.2. Recall
5.3. Focused listening
5.4. Active listening
5.5. Oral Production
5.6. Peer Evaluation

6. Supporting instructional materials
   6.1. Self-recorded instructions videos
   6.2. YouTube Video, “Numbers in Spanish from 1-100”:
       https://www.youtube.com/watch?v=27KsV2MUKGU
   6.3. YouTube Video, “Spanish phone number”:
       https://www.youtube.com/watch?v=WmSAj5NOyyw
   6.4. YouTube Video: “Spanish practice with phone numbers and emails”:
       https://www.youtube.com/watch?v=2Mlrl5Nj8MQ

7. Assessment of Student Learning
   7.1. Sight Translation Exercises
   7.2. Synchronous debriefing session: https://www.youtube.com/watch?v=6ktJIl92G2M

Module 2, Task 4: Telling Time
1. Instructional goal
   1.1. Learner will be able to identify military time and related vocabulary

2. Objectives
   2.1. To become familiar with time-related vocabulary through partial transcription.
   2.2. To practice recognition of time-related vocabulary in short phrases.
   2.3. To strengthen aural recognition of time-related vocabulary.
   2.4. To aurally identify time-related vocabulary
   2.5. To practice recognition of time-related vocabulary

3. Outline
   3.1. Step 1: Introduction
       3.1.1. Introduction to Transcription of Times
       3.1.2. Sight Translation Exercise (Reading Spanish Phrases)
   3.2. Step 2: Word Recognition in Short Phrases
       3.2.1. Recognition of time-related vocabulary (Video Introduced Webpage)
       3.2.2. Sight Translation Exercise (Translating the Spanish Phrase into English)
   3.3. Step 3: Listening to time-related vocabulary
       3.3.1. Discussion of Grammar Notes Related to Time (Video Introduced Webpage)
       3.3.2. Naming Hourly Time (Video Lesson)
       3.3.3. Sight Translation Exercise (Translating English/24 Hour Times to Spanish)
3.4. Step 4: Conversation Completion I
   3.4.1. Listen to and Recognize Time Related Vocabulary (Video Introduced Webpage)
   3.4.2. Sight Translation Exercise (Translating Time Questions and Responses into English)

3.5. Step 5: Word Recognition in Short Phrases II
   3.5.1. Recognition of Time Related Vocabulary (Video Introduced Webpage)
   3.5.2. Sight Translation Exercise (Translating Time-Related Phrases to English)

3.6. Step 6: Time in Hours and Minutes
   3.6.1. Adding Time + (Video lesson)
   3.6.2. Sight Translation Exercise (Hours plus minutes—English to Spanish)

3.7. Step 7: Subtracting Time—Minutes Before the Hour
   3.7.1. Video Lesson (Subtracting Time - )
   3.7.2. Sight Translation Exercise (English to Spanish Minutes Before the Hour)

3.8. Step 8: Time of Day—morning, afternoon, evening
   3.8.1. Video Lesson (Time of Day—AM, PM, etc.)
   3.8.2. Sight Translation Exercise (English to Spanish Times of Day)

3.9. Step 9: Actions (Acciones) During the Day
   3.9.1. Video Lesson (Acciones por el día)
   3.9.2. Sight Translation Exercise (English to Spanish Actions during the Day)

3.10. Step 10: Thank You for Learning to Tell Time in Spanish
    3.10.1. Reading Lesson (A Final Word)

4. Resources
   4.2. Learner Accountability Based Training (LABT) Software

5. Active Learning Strategies
   5.1. Scenarios
   5.2. Recall
   5.3. Focused listening
   5.4. Active listening
   5.5. Oral Production
   5.6. Peer Evaluation

6. Supporting instructional materials
   6.1. Self-recorded instructions videos
   6.2. YouTube Video: ¿Que Hora Es?

7. Assessment of Student Learning
7.1. Sight Translation Exercises
7.2. Audio Interpreting Exercises
7.3. Synchronous debriefing session: https://www.youtube.com/watch?v=6ktUJi192G2M

Module 3, Task 5: Asking and Giving Directions

1. Instructional goal
   1.1. Identify the vocabulary about giving and receiving directions and city landmarks.

2. Objectives
   2.1. To become familiar with terms describing direction and landmarks.
   2.2. To practice aural recognition of terms describing direction and landmarks in phrases.
   2.3. To practice recognition of terms describing direction and landmarks in exchanges.
   2.4. To practice recognition of terms describing direction and landmarks in exchanges.
   2.5. To identify terms describing landmarks and directions and to practice spelling for refined vocabulary building.
   2.6. To practice transcription of a spoken target language phrase and to practice reading handwriting commonly used in the target country.

3. Outline
   3.1. Step 1: Introduction
      3.1.1. Introductory Video (Video Introduced Webpage)
      3.1.2. Sight Translation Exercise
   3.2. Step 2: Word Recognition in Short Phrases
      3.2.1. Instructions Video (Video Introduced Webpage)
      3.2.2. Sight Translation Exercise
   3.3. Step 3: Word Identification in Phrases
3.3.1. Instructions Video (Video Introduced Webpage)
3.3.2. Video Lesson
3.3.3. Sight Translation Exercise

3.4. Step 4: Conversation Completion I
  3.4.1. Instructions Video (Video Introduced Webpage)
  3.4.2. Video Lesson
  3.4.3. Audio Interpreting Exercise

3.5. Step 5: Conversation Completion II
  3.5.1. Instructions Video (Video Introduced Webpage)
  3.5.2. Audio Interpreting Exercise

3.6. Step 6: Transcription
  3.6.1. Instructions Video (Video Introduced Webpage)
  3.6.2. Audio Interpreting Exercise

4. Resources
  4.2. Learner Accountability Based Training (LABT) Software

5. Active Learning Strategies
  5.1. Scenarios
  5.2. Recall
  5.3. Focused listening
  5.4. Active listening
  5.5. Oral Production
  5.6. Peer Evaluation

6. Supporting instructional materials
  6.1. Self-recorded instructions videos
  6.2. YouTube Video: How to Ask Directions in Spanish with Just 7 Words
      (https://www.youtube.com/watch?v=EAsQcWmGeTY)

7. Assessment of Student Learning
  7.1. Sight Translation Exercises
  7.2. Audio Interpreting Exercises
  7.3. Synchronous debriefing session: https://www.youtube.com/watch?v=6ktJIl92G2M
Appendix D: Evaluation Plan

Client & Stakeholders

1. **Who is the client for your evaluation?**
   The client is the person, group or institution that commissions, contracts, or charges the evaluator with the task of evaluating.
   The stakeholder for the evaluation would be the Commandant, Defense Language Institute Foreign Language Center. The Defense Language Institute Evaluation Section would perform the evaluation.

2. **Who are other stakeholders for the evaluation?**
   Who in addition to the client may be impacted by or interested in the evaluation or may utilize its results?
   Other stakeholders include: 1. Those who designed the Headstart program; 2. The entire Defense Foreign Language Program Community; 3. Special Operations Command; 4. Units deploying to various locations; 5. Language learning curricula and software producers; 6. The academic/university language learning community.

Focus the Evaluation

3. **What does the client want to know, and for what purpose?**
   What decisions may be made and/or what actions may be taken based on the results of your evaluation?

<table>
<thead>
<tr>
<th>What does the client want to know</th>
<th>For what purpose</th>
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<tbody>
<tr>
<td>Do participants in the Spanish Headstart program learn Spanish to the degree expected from the program?</td>
<td>Insuring efficient use of learner training time</td>
</tr>
<tr>
<td>Do the explanatory videos, the production exercises, and the asynchronous and synchronous activities lead to better learning?</td>
<td>Choosing the most effective approach to learning</td>
</tr>
<tr>
<td></td>
<td>Determining whether the extra investment in support materials leads to greater proficiency and completion rates than the basic Spanish Headstart program alone</td>
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</tbody>
</table>

4. **What are the key questions your evaluation findings should answer?**

<table>
<thead>
<tr>
<th>Key Questions</th>
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<tbody>
<tr>
<td>Did the participants achieve objectives of the program?</td>
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<tr>
<td>What were participant reactions to the different versions of the program?</td>
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<tr>
<td>What was the cost of the time investment in the “flipped” approach?</td>
</tr>
</tbody>
</table>

Models of Evaluation

5. **What model(s) of evaluation are consistent with the purpose of your evaluation?**

| Use the Kirkpatrick model: 1. Reactions of the participants (both facilitator and learner); 2. The degree of learning and behavior modification that occurred; 3. Obtaining field, learner and end unit assessment of benefits to them of having people with initial training in Spanish; 4. Final results of attendance and participation; 5. Comparison of the augmented and basic Spanish Headstart programs in terms of development costs (e.g., assessing the cost of the “flipped” approach in comparison to using the basic program without instructor and support material. |
6. **What resources are available for conducting the evaluation?**  
Evaluation can be a complex activity requiring significant investments of time and money. Be careful not to commit to activities that cannot be completed with the resources available!  
The Institute has an evaluation section that regularly conducts evaluations using the Appreciative Inquiry model.

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**Collect the information**

7. **What are the best methods for collecting the information needed to answer your evaluation questions?**

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<tbody>
<tr>
<td>x</td>
<td>Survey</td>
<td>Document review</td>
<td></td>
</tr>
<tr>
<td>x</td>
<td>Interview (learners, receiving units)</td>
<td>Testimonials</td>
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<tr>
<td></td>
<td>Observation</td>
<td>Expert panel</td>
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<tr>
<td></td>
<td>Group techniques</td>
<td>Simulated problems or situations</td>
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<tr>
<td></td>
<td>Case study</td>
<td>Journal, log, diary</td>
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<tr>
<td>x</td>
<td>Tests</td>
<td>Unobtrusive measures</td>
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<tr>
<td>x</td>
<td>Photos, videos (learners applying Spanish as resident learners and in the field)</td>
<td>Other (list)</td>
<td></td>
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</tbody>
</table>

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**What settings and events need to be observed?**

Completion of module, task and step can be recorded. End of program test results can be collected.

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**What documents and other materials need to be reviewed?**

None

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**Who has information needed to answer your questions?**

Evaluation section, testing section.

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**How will you obtain that information?**

Procedures will be coordinated with the two activities. The evaluation plan will contain all steps. All will be coordinated with the representatives of the Commandant, Defense Language Institute Foreign Language Center.
Analyze the Data

8. **How will you analyze the data you collect?**
   Design of your analysis scheme must proceed hand-in-hand with design of your data collection instruments. Do not collect data until you know what you are going to do with it.

   **Data analysis methods:** At the end of the program, students would receive an Oral Proficiency Interview, Computerized provided by the American Council of Teachers of Foreign Languages (ACTFL). Success would be achieved if 80% achieved the equivalent of a 0+ rating.

9. **How will you ensure your evaluation activities meet appropriate professional and ethical standards?**
   The evaluation and research section would insure that Department of Defense policies would be followed in the collection of information. All research done using Defense Language Institute students must pass a set of appropriate IRB procedures.

   **How will you ensure confidentiality?**
   Individual data would be consolidated into collective numbers. No data that would be attributable to an individual would be passed on to supervisors. Processes will be fully coordinated with supervisors and the chain of command.

   **What other precautions may be needed to ensure that participants do not suffer negative consequences of providing information?**
   All surveys, interviews would be kept anonymous. Videos and audio recordings would be made only with the consent of those participating. Test results would not be anonymous. However, participation in a research study is voluntary and there must not be negative consequences related to participating in an experiment.

   **How will you ensure your findings present an accurate picture of the object you are evaluating?**
   Evaluation reports will be shared with participants, supervisors and the chain of command to insure that an accurate picture has been prepared.

   **What sampling method(s) will you use?**
   Two groups of 10 each will work with the program. Results will be recorded and compared.

   **How will you ensure validity of your instruments?**
   Surveys and interview content will be coordinated with the Evaluation and Operations section to insure that items give a complete picture of the skills required.
How will you ensure reliability of instruments and procedures?

Need to check on these procedures.

Present the Information

10. How will you present the results of your evaluation in order to maximize use of the information you provide?

<table>
<thead>
<tr>
<th>To whom</th>
<th>When/where/how to present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Commandant, Defense Language Institute</td>
<td>DLI headquarters/briefing/formal written report</td>
</tr>
</tbody>
</table>

Will interim reports be formal or informal?

Informal

What information will interim reports contain?

If participation is continuing.

Who will receive your final report?

Commandant, Defense Language Institute. Normally, the officer responsible for receiving such a report is the Assistant Commandant and the Director, Research and Evaluation.

What will your final report contain?

Listing of test scores, survey results, comments from individuals and focus groups.

What consequences of your report can be anticipated?

If there is no difference in the two groups, then the “flipped” approach will not likely be adopted. If there is a difference in percent of people meeting the objectives of the program, it can be anticipated that support materials will be developed for each of the 22 Headstart programs.

What follow-up (if any) will you do to determine how your evaluation, and the dissemination of its results, have affected the object of the evaluation?

Generally, the Evaluation office would be charged with follow-up. Corrective actions would be listed in the Annual Command Plan to insure that corrective steps would be taken and implemented.
Appendix E: Architecture and Student Site Map

LABT is comprised of two technologies, an installed application for students and a web-based system for administrators and instructors. Organizations who wish to use LABT designate an account manager to be in charge of creating user accounts and who has the ability to track user progress. Students who have accounts can download the LABT application, install it, and login. The application contacts the LABT server when a student attempts to login to verify the student’s login credentials. The application and the server work together to track progress, which is stored on the server. This means students can login and work from any desktop computer with an Internet connection and they need not use the same computer.

The following diagram shows the relationship between users of the LABT application (i.e. students) and the account manager. It also shows a high-level view of the LABT server. In addition to storing the user data, the server contains three subsystems that are accessible via a web browser. The Account Manager System contains webpages for the account manager to add or remove students as well as pages to examine student progress. The Instructor System contains webpages for instructors to view student progress in detail as well as grade student assignments and tests. Lastly, the Administration System contains webpages for a system admin to manage accounts of instructors and account managers.
Account Registration

The LABT architecture supports a multi-tier user account model. *Standard user accounts* (a.k.a. *student accounts*) are created for those who will use the student application. *Account manager accounts* (a.k.a. *master accounts*) are created upon request and are used for administering student accounts. Each student account is owned and managed by exactly one master account. In addition, no student can log into the student application before being registered by an account manager.

For someone to acquire a master account, a registration request must be submitted via the LABT registration webpage. If approved, the account manager can begin a two-step process to register students. This first step is for the account manager to simply enter email addresses of students. This triggers a welcome email to be sent to each student who then performs the second step in the user registration process, which is to install the application and enter personal details like name and password to be attached to the account. It shows the process for master account registration followed by a student registration.
This signup model works really well for situations where there is an organization or company that wants a group of people to take a course. The system admin does not have to get involved in individual signups. It is up to the third-party organization to manage individual account. Moreover, the biggest benefit with this structure is that the account manager can monitor how students are progressing. For example, if finishing the course is tied to an employee’s compensation or job performance then the account manager can easily gauge not only the student’s progress, but also his or her performance in the course. Account managers have access to this information by viewing a few simple webpages.

In some cases, there might not be an organization between the student and the LABT. For example, in the case of Don’s e-Learning Design course there were simply individual students. In this situation, I created my own master account and signup the students myself. I did not use the account for monitoring the progress of students because instructors also have this ability.

User Slots

Each master account has a certain number of user slots that can be doled out. This is how we control the number of students an account manager can sign-up. With each student email that the account manager enters into the LABT, one user slot is used. Once a slot is assigned, it is still possible for the account manager to unassign the slot as long as the student has not yet logged in. However, if the student has logged in then this slot is no longer available for reassignment. It is permanently attached to that particular user. If the account manager runs out of user slots then there is a mechanism within the Account Manager System to request more.

Instructor Accounts

Instructor accounts are created and managed by the system admin. These accounts are used to monitor student progress, listen to student audio submissions, and grade tests. Instructors cannot create or remove student accounts. Instructor accounts are global, meaning that they are not assigned to a particular organization or group of students. However, the home page for instructors lists students by organization and language so they can easily find the set of students that are assigned to them.
**Content Structure**

Content is divided into two types, course content and test content. The *Content Authoring Tool* (or CAT) is used to create both types. LABT was originally architected so that one student is assigned one course and takes one test. In other words, LABT cannot currently track the progress of a single user through multiple courses or tests. However, LABT does allow different users to participate in different courses and take different tests. A student progresses through course content linearly with each activity building on what was learning in previous activities.

Course content is packaged with the LABT application itself so no downloading of large amounts of data containing video is necessary. On the other hand, test content is downloaded at the time the student takes the test. No video is allowed within test content. The developer does the packaging or deployment of content after the content author is finished with the course or test. Sharing of content is easily accomplished using the export/import features found within the CAT. These features also allow multiple content authors to work on different parts of a course or test, combining content into a final package when the time is right.
Student Site Map

1. Student
2. Login
3. Intro Page-Enter
4. Explanatory Video
5. Spanish Headstart Task/Step
6. Speech Production
7. Asynchronous Online Posting/Facilitator and Cohort Feedback
8. Synchronous Online Meeting/Language Use Opportunity/Sharing of Ideas/Cultural Study
Appendix F: Summary of Online Meetings

1. Synchronous orientation meeting: Two participants were able to attend the orientation meeting on Adobe Connect, along with three facilitators. Felipe modeled how to download and log into LABT, and showed participants how to navigate the program. Felipe also held a private face-to-face orientation meeting with one participant on the main UNM campus.

2. Synchronous debriefing interview: All five participants were present for this meeting, as well as the three facilitators and the software developer, Mr. Smith. A summary of the feedback given in this synchronous debriefing follows:

**Participant 1**: Software and approach very good. A few issues in the beginning with functionality—took a couple of days to work out. Which browser to use, clearing cache, installing software... I had some problems with functionality of software. In general, it was unclear whether I needed to be in Headstart or in LABT, moving through with the big blue arrows. If you do not do it in the correct sequence, everything is reset: NO-GO (means Headstart is not tracking learners’ progress when accessed through LABT). Some other issues were: I cannot resize the Headstart window to make it bigger. A bunch of irritating Flash pop-ups appeared. The videos were good, but I got off to a bad start. Maybe Ariana's first video wasn't sufficient explanation?

**Participant 2**: I had the same issues.

**Participant 3**: I was mostly in Headstart. I watched the first few videos, but then felt I did not need them after a while. When we got to the point of recording our voices, it was a huge leap between Headstart and actually saying things, especially in the directions module. Maybe seeing a map and speaking the directions would be better than translating. I am not a fan of translation in language learning.

**Participant 4**: I just finished “Numbers.” Not sure if it was right. Not sure the introductory videos match with the activities. I started without the videos and had no difficulty, but then the videos helped when tasks were more complicated.

**Participant 3** responded, “I had the same issue when I first started the course, but it was because I was following arrows rather than doing the accompanying activity in Headstart. Maneuvering in LABT is difficult.”
**Participant 5:** I have completed Module 1 Task 1, and Module 2 Task 2 and task 4. I have gone directly to Headstart after the video, I was trying to follow the course syllabus. I complete the standards...get 100% when I submit. Then I log out and log back in, and it doesn't save my progress. I enjoy the lessons and feel comfortable with what I am learning, repetition is great for me. I was trying to get it to track my progress.

**Alexander Smith, Software Developer:** Did anyone experience problems with recording your voices?

**Everyone responded:** No.
Appendix G: Course Syllabus

Spanish Nivel Básico
An Online Language Learning Project
April 9-April 16, 2014

Course Syllabus

Facilitators
Felipe Amaral
felipe@unm.edu
505-715-7568

Don Fischer
dfischer@swcp.com
505-681-8650

Ariana Koers
arianakoers@hotmail.com
505-217-6348

Weekly Web Conference: 6:30 pm PST/7:30 pm MST

Course Description

This short project will provide an introduction and refresher experience with basic Spanish. It will use the Spanish Headstart program developed by the Defense language Institute. Learners will be provided software and the Headstart materials for use on their personal computers. The program will consist of three modules where we will study the vocabulary associated with numbers, telling time and travel.

Learning Outcomes

Learners will be familiar with the vocabulary associated with numbers, telling time, and travel.

References:

Weekly meetings will be held using Adobe Connect where issues will be discussed. Course content and delivery will be contained in downloaded software available to the student at http://www.personal-lexicon.com/. (Passwords and link will be distributed with email instructions and covered in the first weekly meeting.)

Schedule
April 9- Introduction and orientation, all participants
April 10- Start Unit 1: Numbers
April 13- Conclude Unit 1, Start Unit 2: Telling time
April 15- Conclude Unit 2, Start Unit 3: Asking and giving directions
April 16- Weekly discussion of issues, community of practice (as needed)
April 19- Conclude Unit 3; Complete Usability Survey

**Learner Support:**

Learning, software use and technical issues will be referred to the assigned facilitator.

**Don Fischer**
June
Asham
Julia

**Ariana Koers**
Kristen
Beth
Tanya

**Felipe Amaral**
Bill
Marina

**Assessment**

There will be no grades assigned. There are assessment exercises in the Headstart program. Learners will be provided a Usability Survey to provide input on quality, usability, and there overall assessment of the methodology used.

**Feedback/Communication**

Individual feedback and communication will be conducted through email and telephone. Group feedback will take place during online conferences.
Appendix H: Results of Final Presentation Peer Evaluation Survey

The Project

The project successfully established the instructional problem.

- Strongly Agree: 2 (50%)
- Agree: 2 (50%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)

The overall aim of the project was clear.

- Strongly Agree: 2 (50%)
- Agree: 2 (50%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)
The need for the project was clear.

- Strongly Agree: 4 (100%)
- Agree: 0 (0%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)

The content was appropriate for the project.

- Strongly Agree: 2 (50%)
- Agree: 2 (50%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)

The target audience was appropriate for the project.

- Strongly Agree: 3 (75%)
- Agree: 1 (25%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)
What did you find most valuable about the project?

- Virtual Meetings in Adobe Collaborate
- Flipped classroom idea
- Harrell's 7 characteristics
- Direct quotes from students very helpful
- Improvement on existing Headstart
- It was clear
- The fact that you took an existing program and improved it to facilitate learning, adding the interaction and production piece.
- I think you did an excellent job adding this in the new software LABT. Made comments during presentation.

What did you find least valuable about the project?

- Logon, registration, instruction, navigation, needs major improvements
- Clarity of directions
- How to promote student engagement?
- I was not sure of your definition of community of practice and it needs to be made clear.
What improvements do you suggest for the project?

Chat feature
Measurable learning objectives
Social learning through cohorts so students can interact.
Clearly define that your design addresses the needed learner support in two ways.
One more in an individual learner-content interaction manner and the other a cohort group learning exercise.
Since it was presented as a COP, I was looking for that and did not find it.
Clearly define what you mean by COP. Made comments during presentation.

The Presenters

The Presenters were knowledgeable about the topic.

Strongly Agree 2 50%
Agree 2 50%
Neither agree nor disagree 0 0%
Disagree 0 0%
Strongly disagree 0 0%

The Presenters gave a clear and informative presentation.

Strongly Agree 2 50%
Agree 2 50%
Neither agree nor disagree 0 0%
Disagree 0 0%
Strongly agree 0 0%
The Presenters answered questions well.

- Strongly Agree: 3 (75%)
- Agree: 1 (25%)
- Neither agree nor Disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly Disagree: 0 (0%)

The Presenters used the time effectively.

- Strongly Agree: 1 (25%)
- Agree: 3 (75%)
- Neither agree nor Disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly Disagree: 0 (0%)

The Presenters used the Web conferencing format efficiently.

- Strongly Agree: 2 (50%)
- Agree: 2 (50%)
- Neither agree nor Disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly Disagree: 0 (0%)
• What did you find most valuable about the presenter's performance?

I liked seeing the modules and actual lessons
Good presentation
Your ability to show LABT and what you had designed.
The presentation was well organized and clear.
Well organized and clear.

• What did you find least valuable about the presenter's performance?

Not sure.
Cannot think of anything.
None.
NA

• What improvements do you suggest for the presenter's performance?

Increased one-on-one discussion with your students similar to what Felipe did with the student he spoke about.
More user control.
I think you shared the presentation well.
N/A
The Modules

We realize this presentation only provided a short demo of the two modules. Please provide your answers based on your impressions of the short demo.

The look and feel of the modules were appropriate for the project.

- Strongly Agree: 1 (25%)
- Agree: 3 (75%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)

The modules have a clear interface and were easy to navigate.

- Strongly Agree: 0 (0%)
- Agree: 4 (100%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)

The modules were engaging for their intended audience.

- Strongly Agree: 1 (25%)
- Agree: 3 (75%)
- Neither agree nor disagree: 0 (0%)
- Disagree: 0 (0%)
- Strongly disagree: 0 (0%)
What did you find most valuable about the modules?

- Simplicity
- Spanish artistic influence
- Easy to follow

Since we did not spend a great deal of time on them, it is difficult to answer. They seemed to be well designed to generate learner to content interaction. Made comments during presentation.

What did you find least valuable about the modules?

I don't have enough information to make a decision on this. Difficult to determine. Made comments during presentation.

What improvements do you suggest for the modules?

I cannot say until I actually navigate the module to better understand the flow. Difficult to determine from short presentation. Made comments during presentation.
## Appendix I: Checklist for Learner Support

<table>
<thead>
<tr>
<th>Learner Support Method</th>
<th>Keep/Delete</th>
<th>Rationale/Reasons for Keeping/Deleting/Adding. Also, location this support will be available within course, or how learners will know the support is available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructors/Tutors/ Facilitators:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Facilitation</td>
<td>Keep</td>
<td>After the initial synchronous online orientation session, each design group member will have 2-3 learners to keep in contact with by telephone, email or mutually developed means. The initial session will cover how to download, install, and login to the software, as well as a short demo of the activities. After that, the design group members will individually address additional questions. Eventually we would like to move to peer facilitation by people who have previous language learning or who have already taken the course with this approach.</td>
</tr>
<tr>
<td>Communication support</td>
<td>Keep</td>
<td>The necessary software to participate will be downloaded to the participant computer. There will be a link to the Spanish Headstart program. Our programmer will provide technical support. Learners will contact their respective facilitator for assistance, as described in the course syllabus. This information will also be covered in the initial synchronous online orientation session.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Keep</td>
<td>Learner/Group feedback to be provided through email and through group sessions on Adobe Connect.</td>
</tr>
<tr>
<td>Links to resources</td>
<td>Keep</td>
<td>Links to resources initially contained in email instruction and eventually incorporated into the LABT software.</td>
</tr>
<tr>
<td>Orientation to distance learning</td>
<td>Keep</td>
<td>Orientation over Adobe Connect to be held Wednesday, 9 April, 7:30 pm MSDT. Learners will participate in Adobe Connect. Learners will receive an e-mail with instructions on how to use Adobe Connect and the session will be recorded for those who cannot attend.</td>
</tr>
<tr>
<td><strong>Mentors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructors/Tutors/ Facilitators</td>
<td>Keep</td>
<td>Each design group member will have 2-3 learners to keep in contact with by telephone,</td>
</tr>
</tbody>
</table>
email or mutually developed means. They will act as Instructors/Tutors/Facilitators, provide advice, and facilitate participation in the project.

<table>
<thead>
<tr>
<th>Peers</th>
<th>Keep</th>
<th>After submitting their assignment, students will have the opportunity to view submissions from other students so they can learn from each other as well as from the facilitators.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Experts</td>
<td>Delete</td>
<td>There are no community experts for this project. Participants will refer to the design team members for advice and facilitation.</td>
</tr>
<tr>
<td>e-Mentors</td>
<td>Keep</td>
<td>Each design group member will have 2-3 learners to keep in contact. Most of the communication will be done online. Design group members will answer general questions about the course, about navigation, about the activities for their corresponding modules, and about the course schedule. Our programmer will provide technical support.</td>
</tr>
</tbody>
</table>

### Technical Support

<table>
<thead>
<tr>
<th>Technical support persons</th>
<th>Keep</th>
<th>Each design group member will have 2-3 learners to keep in contact with by telephone, email or mutually developed means. They will act as technical support persons.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 hour help lines</td>
<td>Delete</td>
<td>Each design group member will support the learners for all their needs regarding the course. Such support will be provided as needed (within a 24-48 hour response time) but not on a 24-hour basis.</td>
</tr>
<tr>
<td>FAQs (Frequently Asked Questions)</td>
<td>Delete</td>
<td>Each design team member will help a small group of participants with their questions. Team members will keep in touch to make sure that repeated questions or questions that apply to the entire group are shared with all participants through email. These emails with important questions will be stored and used to generate future orientation materials.</td>
</tr>
<tr>
<td>Help wanted Help Given Forum within course</td>
<td>Delete</td>
<td>All questions will be answered directly by team members.</td>
</tr>
<tr>
<td>Orientation to technical system</td>
<td>Keep</td>
<td>We will conduct an initial synchronous online orientation on Adobe Connect prior to starting the activities. The session will be recorded for those who cannot attend.</td>
</tr>
</tbody>
</table>

### Advisors/Counselors
<table>
<thead>
<tr>
<th>Academic Advisement</th>
<th>Keep</th>
<th>Each design teaming facilitator (Ariana, Felipe, Don) will have 2-3 learners for which they provide advice and facilitate participation in the project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling on non-academic problems</td>
<td>Keep</td>
<td>Facilitators will provide necessary advice and assistance.</td>
</tr>
<tr>
<td>Libraries and Data Bases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Links to a library</td>
<td>Delete</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Library resources within course</td>
<td>Keep</td>
<td>Within Headstart, there is a glossary of Spanish terms. There is also a database of cultural facts.</td>
</tr>
<tr>
<td>Compilation of resources</td>
<td>Keep</td>
<td>Headstart itself is a compilation of resources, linguistic and cultural.</td>
</tr>
<tr>
<td>Links to databases</td>
<td>Keep</td>
<td>Headstart is a database, part of the DLI Foreign Language Center, which includes cultural and linguistic databases such as “Legends &amp; Folktales,” “Global Language Online Support System,” “Countries in Perspective,” etc.</td>
</tr>
<tr>
<td>Links to resources relevant to course. Give examples</td>
<td>Delete</td>
<td>Our course is self-contained—the only resources we suggest to students are the optional supplementary materials on the DLI Foreign Language Center website. There are plans to implement either a chat or a discussion board within the software to allow students to share other resources with each other.</td>
</tr>
<tr>
<td>Institutional Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration/Enrollment</td>
<td>Keep</td>
<td>Students were enrolled through email and formally listed as students after completing a student questionnaire. This enrollment happens in the LABT software, where the course content is delivered. In order to be enrolled, students just need to provide an email address to our programmer.</td>
</tr>
<tr>
<td>Access to resources on campus</td>
<td>Keep</td>
<td>Students will have access to Adobe Connect for synchronous meetings.</td>
</tr>
<tr>
<td>Access to resources off campus</td>
<td>Delete</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Academic policies</td>
<td>Delete</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Opportunities to be part of an institutional community</td>
<td>Delete</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Regional Centers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix J: Answers to Faculty Questions and Comments

1) How will cohorts be identified in the future?

Cohorts are identified as the need arises, either through the prospect of deployment or through requirements for individuals to be able to function in a country because of the unit mission.

2) How will you handle cohort members who do not keep up with the majority, or drop out?

Cohort members who cannot keep up may receive one-on-one instruction if the requirement for their qualification relates to mission performance. Military units can pay for outside instruction if necessary. Commanders will decide on individuals. Actions may include restarting or even transfer of the individual.

3) How will you encourage participation?

Participation generally will be required. The key to voluntary participation is modeling the use of the language to show what it can bring. Videos, movies, contact with native speakers can provide motivation to learn. Again, military and government people know that mission is the top priority and as professionals, they learn to use the tools that facilitate mission accomplishment. The whole range of training, counseling and disciplinary tools are available to encourage participation and meaningful involvement.

4) How will you handle learners who are too shy/embarrassed to record themselves speaking a foreign language, especially since it is recorded and available for all their classmates and
teacher/s to hear?

Trust will have to be built up. Initially, one on one over the telephone, Skype or some means may be necessary to help the individual get over the first step. Military members are trained to communicate commands and to respond verbally to questions. In the case of a second language, we often encounter shyness. The trick is to stay with the learner, give the learners tasks they can do (Krashen’s Comprehensible Input) to build confidence, and gently increase the complexity. Cohort members with people at different zones of proximal development can help each other. In the end, the standard has to be held. In almost all cases, leadership and example will bring learners to the level needed.

5) How will you balance this program that is both self-paced and a cohort?

The program is balanced between individual effort, online posting of production and weekly or more synchronous meetings (frequency based on need). The program is designed to increase the probability that an individual in a self-study program will meet or exceed standards and complete the program through the introduction of explanatory videos, speech production, online posting of production with facilitator monitoring and feedback, and synchronous online meetings to provide opportunity for language use and to develop a sense of community and accountability.