Scholarship of Teaching and Learning Proposal
Immersive Mobile Technologies for Language Teaching and Learning

Investigators:

Olga Scrivner
Spanish and Portuguese Department
Indiana University
obscrivn@indiana.edu

Julie Madewell
Spanish and Portuguese Department
Indiana University
jmadewel@indiana.edu

Nitocris Perez
UIT
Indiana University
nitperez@iu.edu

Graduate Research Member:

Cameron Buckley
Digital Art
Indiana University
cabuckle@indiana.edu

Funding Level: Phase II

Duration: 1.5 year
Scholarship of Teaching and Learning Proposal
Immersive Mobile Technologies for Language Teaching and Learning

Abstract

This project is a part of a larger research that aims at investigating the role of immersive mobile technologies in language education and measuring their effectiveness on language learners. Our recent initiative, *Augmented Reality Digital Technologies for Foreign Language Teaching and Learning*, has laid a theoretical and practical ground for the current proposal. In addition to improvement in design and evaluation methods, the present study aims to further expand the spectrum of mobile technology application. While our previous study was limited to two-dimensional space of mobile devices, the current project will evaluate three-dimensional spatial immersion and its effect on language learners. Recent advances in technology have made it possible to add these spatial dimensions to a learning environment by using 360 cameras and Google virtual cardboard viewers. In collaboration with IU Emerging Technologies and the CITL Video lab support, this project will research, develop, and evaluate the use of virtual videos in a language classroom. In addition, this methodology has the potential of becoming a useful tool for language instructors. Thus, our proposal has a two-fold purpose: i) to explore the learning potential of this technology for language classrooms and ii) to provide a technical evaluation of its usability for language teachers.
Project Description

1. Introduction

“With each new era, educators must examine the cultural and technological changes that define the times in order to reflect or incorporate them into teaching practice.” [4]

This project is a part of an ongoing investigation to explore and evaluate the use of immersive mobile technologies in language education. Our first initiative, supported by SOTL grant, focused on the design and evaluation of the mobile augmented reality application Aurasma [1]. Based on students’ feedback and evaluations, we were able to define the scope of augmented reality application (henceforth, AR) for language instruction, illustrated in Table 1:

<table>
<thead>
<tr>
<th>Language Skills</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>Very effective for visual learning and vocabulary reinforcement</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Effective in a context of learning vocabulary</td>
</tr>
<tr>
<td>Listening</td>
<td>Effective only with short dialogues (no more than 1 minute)</td>
</tr>
<tr>
<td>Communication</td>
<td>Hard to design for a group activity</td>
</tr>
<tr>
<td>Cultural Learning</td>
<td>Hard to create cultural content (e.g., historical, cultural descriptions of spanish-speaking countries)</td>
</tr>
</tbody>
</table>

Table 1: Scope of AR Application in Language Instruction

The results in Table 1 yielded both favorable and unfavorable outcomes, as it became clear that the scope of augmented reality app was limited to vocabulary learning and short dialogues for listening and comprehension. Foreign language learning, however, represents a multi-dimensional cognitive learning process, which also involves communicative skills and cultural learning. Videos have been traditionally utilized as a convenient media for teaching these skills. While these media are able to engage learners by activating visual and auditory sensors, learners usually remain passive recipients of information, i.e., learners are not fully immersed.

Recent advances in mobile technology have offered a new opportunity to the field of education, namely virtual reality applications, allowing instructors to “bridge the gap between reality and abstract knowledge” [22]. Virtual reality (VR, henceforth) has shown an impact not only on more integrated understanding of scientific concepts but also on long-term memory retention. Such immersive virtual experiences have great potential for foreign language instruction, where learners’ engagement and memory retention are the key elements for success. By shifting from a passive to an active participant in virtual scenes, the learner is compelled to explore language environments. It has also been claimed that virtual technology can help students learn more effectively and increase their retention compared to traditional two-dimensional surfaces [2]. Moreover, since visual and

1 http://citl.indiana.edu/programs/sotl/funded/2015/augmented_reality_scrivner_madewell.php
audio aids are commonly used to reinforce language learning, combining these aids with an immersive spatial environment will be particularly effective for language learners. Furthermore, VR technology allows for incorporation of cultural and communicative aspects of language learning. In contrast to traditional videos used in language classes, VR offers a 360 view of environment. As a result, learner is not confined to viewing a predefined spatial segment: the viewer is able to explore all dimensions, similar to a Google street view, where the viewer is in control of movement. Moreover, these three-dimensional videos can be used for various task-oriented activities, in contrast to open social virtual worlds (e.g. Second Life) [32, 34], which are less beneficial for classroom activities or individual work [33]. Finally, this technology will enable language instructors to share their own cultural experiences in a more vivid and immersive way.

While the digital capabilities of virtual technologies are almost limitless, to our knowledge no study has been conducted to measure VR effectiveness on actual language learners. In addition, the lack of research on design for virtual language environments and their implementation in language curricula presents considerable challenges to the widespread use of these technologies in language instruction. To address these issues, the current proposal investigates the effectiveness of three-dimensional videos for language learning. The grant will provide us with the opportunity to answer the following questions:

1.) Does this emerging technology positively affect students’ motivation and performance?

2.) How do students and instructors respond to VR interaction?

3.) How does VR change the language classroom dynamic?

4.) What VR design best supports language learning?

5.) What are the best practices for VR in language classroom settings?

6.) Is there any significant difference found between teaching with traditional technology versus teaching with emerging technology (VR) in language classes?

This project anticipates a three-fold impact: First, it will add to our understanding of the role of emerging technologies in language education, thus improving our teaching and learning experiences. Second, it will provide methodological recommendations for virtual reality design and use in language classroom settings. Finally, it will lay the theoretical framework for a larger interdisciplinary grant proposal.

2. Project Plan and Methodology

2.1 Virtual Reality in Education

VR is defined as “a computer interface that permits the user to interact in real time, in a tridimensional space generated by a computer, using their feelings, through special devices” [21]. It
has been successfully implemented in scientific simulations (e.g., aeronautics, geophysics, and surgery) as well as in education [27, 28, 25]. Such interactive simulations enable participants to enter environments that feel similar to their real world, thus creating a feeling of full immersion into the virtual setting. VR has already shown an impact on various aspects of learning. Not only does VR help "discover, explore and build knowledge" [29], but it can also improve motivation and attention [9] and provide first-person experiences, otherwise not obtainable through formal education [36].

2.2 Literature Support

The current project’s instructional design and principles are based on Constructivist Learning Design and Task-Based Language Teaching. The main tenet of the constructivist approach is to develop environments in which students can learn by doing. In contrast to other disciplines, the “doing” in foreign languages can be defined as meaningful language exploration and language production. This learning process is tied to “active mental work, not passive reception of teaching” [37]. In this view, the learner is central to the learning process, and one of the driving forces behind students’ stimulus is ‘puzzlement’ or a ‘problematic’ situation [12, 30]. It has also been shown that the environments that offer learners choice and minimize performance pressure support meaningful learning and motivation [11]. David Lebow, in his Five Principles toward a New Mindset, constructs the following five principles for constructivist design [23]:

**Principle 1** Make instruction personally relevant to the learner

**Principle 2** Provide a context for learning that supports both autonomy and relatedness

**Principle 3** Embed the reasons for learning into the learning activity itself

**Principle 4** Support self-regulated learning by promoting skills and attitudes that enable the learner to assume increasing responsibility for the developmental restructuring process

**Principle 5** Strengthen the learner’s tendency to engage in intentional learning processes, especially by encouraging the strategic exploration of errors

From these principles, it is clear that the key elements to students’ success are i) engagement, ii) responsibility, iii) autonomy, and iv) relevance. When a learning activity is delivered by a video or a textbook, it is often non-interactive: learners are usually passive recipients of information. On the other hand, when the learning activity is delivered by a mobile device (e.g. mobile flashcards and language game apps), it is usually interactive and consequently more engaging. As a result, learners actively participate in their learning process. However, these activities still remain non-immersive and are usually isolated from learners’ real lives. Recently, several studies have shown that virtual environments are able to incorporate these principles. In contrast to two-dimensional technology, where “the view is controlled at the source and identical for all observers”, this three-dimensional reality provides each viewer with active control [26]. Thus, viewers become *virtual participants*,...
controlling their own experiences and perceptions. Recent advances in mobile technologies provide necessary tools for immersing students in such authentic experiences, both enhancing their cultural exposure and encouraging independent exploration. In addition, it has been argued that VR is an ideal instrument in education, as it combines visual, auditory, and kinesthetic learning styles [10]. While such spatial feelings have the potential to enhance learners’ language experiences, many theoretical and methodological questions remain unanswered, such as how effective this technology is in classroom settings, how it enhances learners’ experiences, how to quantify and evaluate its effectiveness, and how it affects teacher-student and student-student interactions, classroom dynamics, and contextual relations.

2.3 Methodological Innovation

In recent years, we have seen a significant increase in the use of mobile devices as tools in education. The 2014 NMC Horizon Report for K12 and Higher Education has identified the use of mobile digital technology as a key trend and has predicted its large impact on teaching and learning. While mobile VR technologies (e.g. Oculus Rift, Google Cardboard) have become more accessible, their use, however, remains limited due to technological challenges related to the creation of 3D environments by means of platforms such as Maya and Unity. To address this issue, this project develops and evaluates a method that will facilitate the process of using VR in language education. The main focus is on the implementation of 3D videos recorded with 360 degree cameras. This instructional method will enable educators to i) use cultural videos filmed during their travels (e.g. travel abroad, sightseeing) and ii) record various language conversations (e.g. ordering food in a restaurant or cooking authentic recipes). These language materials will be rendered through VR technology and will provide learners with spatial authentic experiences. These experiences will be achieved by using mobile devices (e.g., IOS, Android) paired with a Google virtual cardboard viewer. Because it enables motion tracking, Google Cardboard provides learners with a feeling of being physically present in a virtual setting.

Figure 1: Technical Tools Used for 360 VR Videos

(a) 360 Kodak camera  (b) Google cardboard for viewing VR videos from a mobile device
In order to produce high quality 360 VR videos, this project will utilize state-of-the-art hardware and software: 1) a 360 camera (Figure 1a), and 2) Google cardboard (Figure 1b). In collaboration with UITS Emerging Technologies and SOTL Video Lab, videos will be recorded using a 360 camera. Recorded videos will then be uploaded to youtube and converted to 3D format and viewed via Google cardboard lenses. The SOTL grant will allow us to purchase 360 cameras, 50 VR cardboards viewers, which will be used in the language classroom, as well as to hire several native speakers to participate in video recordings. In collaboration with the Spanish & Portuguese department, these videos will be used during the Fall 2017 semester in four beginner’s-level Spanish classes.\(^2\) The VR technology will enable us to test and evaluate communicative activities, which were not effective with the AR technology. In this type of activity, the viewer will be guided by another student to explore and describe scenes as well as to provide requested information. In addition, the VR format will allow for incorporation of lengthy sightseeing tours in contrast to a short AR format (one minute). Finally, students will be able to practice writing skills expressing their experiences after being immersed into cultural experiences.

To evaluate the VR effectiveness, we plan to administer anonymous surveys using qualtrics, self-assessment questionnaires as well as quizzes to test for comprehension of materials. We will also collect technical feedback from students describing issues related to the use of technology.

### Measures of success

There are several strong indicators of the success of this research. Whether the results are favorable or not, this study will provide the evaluation of immersive technologies on language learners. Such findings will help advance our understanding of new technology and its role as a tool in education. Likewise, our assessment and methodology will also assist instructors as well as SOTL centers to make decisions about what types of technology to use in a classroom. Finally, the scope of this research can be extended to other disciplines in which videos play a role in teaching, such as history, journalism, and social studies.

In the short-term, the results will be disseminated in several conferences as well as publications. Our workshop on AR and VR technology has been already accepted to the FALCON 2016 conference (Virtual and Augmented Reality in Teaching and Learning) and we have published our research in the proceedings of Future Technologies Conference (Augmented Reality Digital Technologies (ARDT) for Foreign Language Teaching and Learning). We have also submitted a proposal to the 2017 Annual Emerging Learning Design Conference. We also plan in the future on submitting another proposal for EDUCAUSE.

To complete the project, the following activities are planned:

1. **Spring-Summer 2017**
   - Purchasing two 360 cameras

---

\(^2\)There are five basic undergraduate language levels in the Basic Language Program for Spanish at Indiana University [100, 150, 105 (combination of 100/150), 200, 250].
- Hiring two instructors from the IU Honors Language program to record 360 sightseeing videos during their summer program in Spain and Mexico\(^3\)
- Hiring two Spanish associate instructors to develop videos with a communicative content (e.g. ordering meal at a restaurant, describing a house etc)
- Uploading and converting videos to 3D format
- Testing videos and creating lesson plans
- Obtaining IRB approval (all investigators have already completed the CITI training)
- Purchasing Google cardboards viewers
- Developing surveys in qualtrics for students’ evaluation

2. **Fall 2017**
   - Using AR and VR in four Spanish classes
   - Collecting students’ feedback and assessing their performance via quizzes and self-assessment

3. **Spring-Summer 2018**
   - Analyzing results
   - Disseminating and publishing

4. **Budget Narrative**

**Project Allowance:**

1. 4 Graduate students (15/hr): video recording, uploading videos - $800
2. AR and VR preparation: Cameron Buckley and Olga Scrivner - $1000
3. Lesson plans, directing video recoding - Julie Madewell $500
4. VR and 360 video consulting - Nitocris Perez $500
5. Software - $1700
   (a) 360 cameras x 2 ($750 each) - $1500
   (b) Google Cardboard viewers x 40\(^4\) ($7.50) - $300

**Conference Allowance:** - $500 (travel expenses to present and publish results)

\(^3\)Many Associate Instructors from the Spanish & Portuguese Department are part of this summer programs.

\(^4\)10 cardboards have been already purchased to present at the FALCON conference.
References


OLGA SCRIVNER
355 North Jordan Avenue, GISB Office 2162, Bloomington, IN 47405
obscrivn@indiana.edu http://www.olgascrivner.com

OBJECTIVE

Merging Linguistics, Language Technology, Virtual Realities, Teaching Methods, Gaming, Data Analytics to advance our understanding about language learning, development, variation, and change.

EDUCATION

PhD French Linguistics and Computational Linguistics, Indiana University, 2015
Minor in Spanish Linguistics
MA French Linguistics, Indiana University, USA, 2009
MA Romance Philology, State University of Saint-Petersburg, Russia, 1998

CURRENT POSITION

Visiting Lecturer Department of Spanish and Portuguese, Indiana University 2015-present

SELECTED PUBLICATIONS AND PRESENTATIONS


Faculty Colloquium on Excellence in Teaching, Indianapolis, IN, 2015 - Social Media in Education
Faculty Colloquium on Excellence in Teaching, Indianapolis, IN, 2014 - Anatomy of the Classroom: You and Them and Class Resuscitation by Animation
Faculty Colloquium on Excellence in Teaching, Indianapolis, IN, 2012 - Class Resuscitation By Animation: Bringing Your Classroom Back To Life
Faculty Colloquium on Excellence in Teaching, Indianapolis, IN, 2011 - Lights, Camera, Action: The Next Step In Your Future Presentations

GRANTS AND AWARDS

Faculty Grant Center for Innovative Teaching and Learning, Indiana University, 2016 - $750
SOTL Grant Augmented Reality Digital Technologies (ARDT) for Foreign Language Teaching and Learning (Principal Investigator), Indiana University, 2016 - $5,000
Faculty Grant Center for Innovative Teaching and Learning, Indiana University, 2015 - $750
Leadership Grant Center of Excellence for Women in Technology, Indiana University, 2015-2016 - $500
Travel Grant Fourth Workshop on Computational Linguistics for Literature, Montclair State University, 2015 - $1,100
Conference Travel Grant Department of General Linguistics, Indiana University, 2015 - $300
HASTAC Scholar Award  Institute for Digital Arts and Humanities, Indiana University, 2014-2015 - $300

Recognized with Distinction Associate Instructor  Department of Spanish and Portuguese, Indiana University, 2014

Graduate Student Conference Travel Award  College of Art and Humanities Institute, Indiana University, 2013 - $1,000

Grace P. Young Graduate Award  Excellent Achievement in French Studies, Department of French and Italian, Indiana University, 2011 - $500

Teaching Award  Outstanding Performance as Associate Instructor in French, Department of French and Italian, Indiana University, 2010 - $200

President’s Volunteer Award  Kosair Children’s Hospital, Louisville, Ky, 2005 - Bronze Award

LEADERSHIP AND COMMITTEES

Logistic Committee  FALCON - Faculty Colloquium on Excellence in Teaching

Conference Committee  New Ways of Analyzing Variation NWAV 41 Conference, Indiana University, 2012

SKILLS

Programming  : R, Shiny, Python, Java, Unix, HTML, XML, Latex

Technology  : Audio and Video Editing, Game developing, Web Publishing, Unity, Maya

LANGUAGES

Native  - Russian; Fluent  - English, French, Spanish, Greek, Catalan; Basic  - German, Latin

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Linguistic Society of America  - Member of Women Mentoring Group

Association for Computational Linguistics

Humanities, Arts, Science, and Technology Alliance and Collaboratory

Center of Excellence for Women in Technology  - Leader in Digital Research Group

Association Internationale d’Etudes Occitanes
EDUCATION

MA Hispanic Linguistics
Indiana University, Bloomington, IN
2006 - 2008

BS Spanish (cum laude)
BS Photography (cum laude)
Middle Tennessee State University, Murfreesboro, TN
2001 – 2005

AS Basic & Applied Science (cum laude)
Chattanooga State Technical Community College, Chattanooga, TN
1999 – 2001

EMPLOYMENT

ADMINISTRATIVE ROLES AT INDIANA UNIVERSITY

Course Supervisor of S105: First Year Spanish
Fall 2013 - current
- Fall 2016: Supervise 23 instructors of 35 sections with approximately 840 undergraduate students
- Spring 2016: Supervised 7 instructors of 13 sections with approximately 310 undergraduate students
- Fall 2015: Supervised 21 instructors of 35 sections with approximately 840 undergraduate students
- Spring 2015: Supervised 9 instructors of 16 sections with approximately 380 undergraduate students
- Fall 2014: Supervised 22 instructors of 34 sections with approximately 820 undergraduate students
- Spring 2014: Supervised 10 instructors of 20 sections with approximately 480 undergraduate students
- Fall 2013: Supervised 24 instructors of 34 sections with approximately 820 undergraduate students

Course Supervisor of S250: Second Year Second Semester Spanish
Spring 2012
- Spring 2012: Supervised 26 instructors of 38 sections with approximately 990 undergraduate students

TEACHING ROLES AT INDIANA UNIVERSITY

Core Lecturer of Spanish
Fall 2011 - current
- HISP-S105 First-Year Spanish Honors (Fall 2016)
- HISP-S105 First-Year Spanish (Spring 2013 - current)
- HISP-S317 Spanish Conversation and Diction (Fall 2015)
- HISP-S315 Business Spanish (Fall 2012, Spring 2013)
- HISP-S250 Second-Year Spanish II (Spring 2012-Fall 2012)
- HISP-S200 Second-Year Spanish I (Spring 2011-Fall 2011)
- GLLC-G291 Study Abroad: Before You Go (Spring 2012)
- GLLC-G491 Study Abroad: When You Return (Fall 2011)

Visiting Lecturer of Spanish
Spring 2009 – Spring 2011
- HISP-S250 Second-Year Spanish II (Spring 2009, Spring 2010 – Spring 2011)
- HISP-S150 Elementary Spanish II (Fall 2009)

Assistant Instructor, Spanish
Fall 2006 - Fall 2008
- HISP-S105 First-Year Spanish (Fall 2006 – Spring 2007)
- HISP-S200 Second-Year Spanish I (Fall 2007 – Fall 2008)

OTHER TEACHING AND ADMINISTRATIVE POSITIONS

Middlebury Institute of International Studies at Monterey, Summer Intensive Language Program
Monterey, CA
Summer 2016

Spanish Language Instructor
- Designed course syllabus and all course materials for first year Spanish courses: Elementary 2 and Elementary 3
- Collaborated with supervisor in the preparation and implementation of additional non-class cultural activities
Indiana University Study Abroad, 7Elements Lodge
Las Canas, Dominican Republic
Fall 2015 - Summer 2016

**Program Consultant**
- Collaborated in the successful design and implementation of a new service-learning based program
- Offered support with all student and program needs before, during, and after the duration of the pilot program

**Indiana University Honors Program in Foreign Languages**
Viña del Mar, Chile
Summer 2015

**Instructor, Student Coordinator**
- Taught 7 week summer Spanish course Introduction to Hispanic Linguistics; developed course material and planned daily lessons; instructed three sections daily; monitored student progress
- Supervised afternoon activities; collaborated with other instructors and Onsite Coordinator regarding all student and program needs

Austin Peay State University
Galapagos Islands, Ecuador
Summer 2014

**Instructor, Program Co-coordinator**
- Taught 4 week summer Spanish courses: Beginner and Intermediate Language courses (4 total courses) to fifteen students
- Developed syllabus, course materials and daily lessons; instructed two sections daily
- Organized and implemented a service learning component with the Scalesia Foundation through Conservation International

**Indiana University Honors Program in Foreign Languages**
Mérida, México
Summer 2012

**Instructor, Student Coordinator**
- Taught 7 week summer Spanish course: Introduction to Hispanic Linguistics; developed course material and planned daily lessons; instructed three sections daily; monitored student progress

**Indiana University Honors Program in Foreign Languages**
Mérida, México
Summer 2011

**Instructor, Financial Coordinator & Public Relations Co-coordinator**
- Taught two 7 week summer Spanish courses: Introduction to Hispanic Linguistics & Advanced Grammar; developed course material and planned daily lessons; instructed four sections daily; monitored student progress; managed program finances

**Committee on Institutional Cooperation Summer Study Abroad Program**
Guanajuato, México
Summer 2010

**Program Assistant**
- Organized logistics of program and served as mentor and liaison for students; supervised students on excursions; organized and oversaw extracurricular activities and class trips; arranged service learning at a local eye clinic

**Indiana University Honors Program in Foreign Languages**
Oviedo, Spain
Summer 2009 & 2008

**Instructor, Logistics Coordinator**
- Taught 7 week summer Spanish course: Spanish Culture; developed course material and planned daily lessons; instructed three sections daily; monitored student progress
- Planned, directed and implemented all program logistics

Ramiro de Maeztu, Escuela Primaria, Comunidad de Madrid,
Madrid, Spain
Fall 2005 - Summer 2006

**Auxiliar de Lengua y Cultura**
- Co-instructed English courses daily for 1st and 2nd grade students and co-led school excursions, activities, and performances
- Assisted with selection of teaching materials, class preparation, and student evaluation
- Led weekly adult Conversational English groups for 12 instructors at the school

**ADDITIONAL CURRICULUM DEVELOPMENT**

**Pearson Higher Education, World Languages Division**
Spring 2016

Created activities based on cultural videos for the Club Cultura Project for the textbook *Anda Elemental, 3e*

**Indiana University, Dpt. of Spanish & Portuguese, Bloomington, IN**
Spring 2011

Designed quiz material currently used in the department online instructional project site ANCLA for $250
RECOGNITIONS, HONORS, AND AWARDS

Service-Learning Faculty Fellow
IU Center for Innovative Teaching and Learning
Fall 2016 - Spring 2017
Fellow to learn issues related to service-learning and community-based research and to develop service-learning pedagogy

Course Development Institute
IU Center for Innovative Teaching and Learning
Summer 2016
Selected as one of few IU instructors to be involved in this intensive week-long course development workshop
Developed the new HISP-S105 Honors Course now offered

Scholarship of Teaching and Learning Grant Winner
IU Center for Innovative Teaching and Learning
Spring 2016
Awarded a Scholarship of Teaching and Learning Grant from the Office of the Vice Provost for Undergraduate Education
Project title: "Augmented Reality Digital Technologies (ARDT) for Foreign Language Teaching and Learning"

IU Department of Spanish and Portuguese
Recipient of the Department’s annual NTT Teaching Award
Spring 2016
Recognized as Outstanding NTT Faculty Instructor with High Distinction
Spring 2014 – Spring 2016

IU Department of Spanish and Portuguese
Full Scholarship and Teaching Assistantship
Fall 2006-Fall 2008
National Scholars Honor Society

SERVICE AND OUTREACH EXPERIENCE

IU Language Tutor
Spanish language tutor
Fall 2014 - current

IU Spanish & Portuguese Song Festival
Judge
Spring 2016

IU Honors Program in Foreign Languages
Translator/Editor
Spring 2015
Co-translated and co-edited official documents from English to Spanish for host families

IU Honors Program in Foreign Languages
Prospective Student Evaluator and Interviewer
Spring 2009 - Spring 2015
Assisted the Director of the IUHPFL with the student selection process for summer study abroad programs
Read and evaluated student application materials (resumes, letters of recommendation, personal statements, etc.)
Conducted student interviews on-site and off-site (Spring 2009, Spring 2010, Spring 2011).

AATSP, Indiana State Spanish Academic Competition
Volunteer Judge
May 2015
Served as judge for students’ performance at the Concurso Académico

IU Office of International Development, Youth Leadership Program with Burma
Volunteer host for two foreign exchange first-year college students from Burma (Myanmar) for two weeks
April 2015

Habitat for Humanity of Monroe County, Bloomington, IN
Volunteer
2011-2014
Served as Spanish/English interpreter and provide document translation services as needed

Kelley Summer Institute, IU CIBER, Bloomington, IN
Mentor
Summer 2013
Served as a mentor, tutor, and interpreter for a Spanish speaking foreign exchange student studying global business in the Kelley summer institute (CIBER Program).
Agua Viva Children’s Home
Chimaltenango, Guatemala

Volunteer

- January 2010: Acted as interpreter (Spanish/English) for group members in a variety of settings
- March 2009: Assisted in Spanish language presentations of a variety of IU Educational Counseling & Psychology modules to Home “parents” and school instructors at Agua Viva in Chimaltenango and to instructors at a school in Chichicastenango

INDIANA UNIVERSITY COMMITTEES AND AFFILIATIONS

IU Honors Program Advisory Committee
Committee Member Representative for the Department of Spanish & Portuguese
2012 - current

IU Center for Excellence for Women in Technology
Faculty Affiliate
CEWiT Advancement Circles: Tech for Teaching
Spring 2016 - current

IU Foreign/Second Language Share Fair Committee
Organizational Committee Member; Implementation Team
Fall 2016

IU Spanish & Portuguese Song Festival
Organizational Committee Member
Spring 2016

IU Department of Spanish and Portuguese
- Spanish Education Certificate Committee Member
  Fall 2016 - Spring 2017
- Community Outreach Organizational Committee Member
  Fall 2016 - Spring 2017
- NTT Annual Review Committee Member
  Spring 2016
- NTT Merit Salary Review Committee Member
  Spring 2016
- AI Probation Policy Committee Member
  Fall 2015
- Undergraduate Scholarship Committee Member
  Spring 2015 & 2013
- NTT Co-Representative for the Departmental Faculty Meetings
  Spring 2014
- NTT Representative for the Departmental Faculty Meetings
  Fall 2013

WORKSHOPS PRESENTED

IU Center for Language Excellence
New and Continuing AI/FLTA Orientation
The skill of reading: Reading for different purposes. The integrated-skill teaching.
Fall 2016

IU Foreign/Second Language Share Fair
Help me find my way and plan my day!
(Theme: “Teaching for the Real World: Street Smarts, Authentic Activities, & Simulations”) Spring 2016

IU Center for the Enhancement of Learning and Teaching
World Language Festival
- ¿Eh vo’ ahi? ¿Querí o querés un matecito?-Learning about Argentinian and Chilean culture over tea
- Discovering the mythology of Northern Spain: duendes, gigantes y hadas
Fall 2015

IU Department of Spanish and Portuguese
AI Orientation Week Workshops for new instructors (Fall and Spring)
- Effective teaching methods of vocabulary
- Course Orientation for new/returning instructors of S105
Fall 2013-current

IU Department of Spanish and Portuguese
AI Administrative/Grading Workshops
- S105 Exams
- In-Class Writings
Fall 2013-current

IU Department of Spanish and Portuguese
AI Pedagogy Workshop
Implementation of Oral Skills in the Classroom
Spring & Fall 2012
education

2014 - 2017  Indiana University  Master of Fine Arts Digital Art

2010 - 2014  University of Tulsa  Bachelor of Arts Film Studies + African American Studies

exhibitions + screenings

2016  Why?  I-Fell Gallery  Unsolved
MFA Non-Graduating Show  Grunwald Gallery  F*R*I*E*N*D*S

2015  Digital Art Exhibition  Cyberinfrastructure Building  Payday
Virtual Environments Student Exhibition  Advanced Visualization Lab  Okla
MFA Non-Graduating Show  Grunwald Gallery  The Cave

2014  CAVE Virtual Environments  Advanced Visualization Lab  The Cave
Senior Exhibition  Alexandre Hogue Gallery  Beneath
Tulsa OK  Starved Amygdala

Senior Film Festival  Lorton Performing Arts Center  Tall Tales
Tulsa OK

46th Annual Gussman Juried Student Exhibition  Alexandre Hogue Gallery  Beneath
Juried by Seth Lower  Tulsa OK  The House I Built

University of Tulsa 6th Annual Spring Film Festival  Starved Amygdala

2013  45th Annual Gussman Juried Student Exhibition Juried by Vince Pitelka  Alexandre Hogue Gallery  Public Domain
Tulsa OK  Forget that time is all that exists

University of Tulsa 5th Annual Spring Film Festival  Lorton Performing Arts Center  Unlawful
Tulsa OK

2012  Oklahoma Dance Film Festival  Circle Cinema  Lovers’ Dance
Tulsa OK
University of Tulsa 4th Annual Spring Film Festival

Lorton Performing Arts Center
Tulsa OK
Poison of Friendship

2011 Aha! Tulsa Performing Arts Center Writer of Play

curating + installation

2016 Andy Lomas
Cellular Forms 18 0011 0003 Paper-Thin Installed and curated show

Hugo Arcier
Degeneration

2015 Rachael Archibald
Camate (in-pinking)
Paper-Thin Installed and curated show

Daniel G. Baird and Haseeb Ahmed
HWBM x 8

Hunter Jonakin
Collector’s Digital Art Piece: Platinum Artist’s Proof
Paper-Thin Installed and curated show

Alan Resnick
Ring Worm
Paper-Thin Installed and curated show

teaching + experience

2014 - Current MADlab Coordinator Makerspace Art and Design Lab at Indiana University

2014 - Current Associate instructor Digital Art Survey and Practice at Indiana University

2014 - Current Associate Instructor 3D Computer Graphics at Indiana University

2011 - Current Head Instructor Residential Filmmaking and Screenwriting Camps at University of Tulsa

grants + awards

2016 Phase II Scholarship of Teaching and Learning Grant Augmented Reality Digital Technologies for Foreign Language Teaching and Learning

2015 Friends of Art Best in Show Award The Cave

2014 46th Gussman Best in Show Award Beneath

2013 45th Gussman 1st Place Undergraduate Award Forget that Time is All That Exists
<table>
<thead>
<tr>
<th>Year</th>
<th>Conference/Event</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Future Technologies Conference</td>
<td>Augmented Reality Digital Technologies and Foreign Language Teaching and Learning</td>
</tr>
<tr>
<td>2014</td>
<td>Internet 2 Technology Exchange</td>
<td>Metaverse Working Group - Oculus Rift</td>
</tr>
<tr>
<td></td>
<td>Thesis Presentation for African American Studies</td>
<td>Self-Aware Mondo Film: Addio Zio Tom as Metacinema</td>
</tr>
<tr>
<td>2013</td>
<td>Research Presentation for African American Studies</td>
<td>Marriage in African Theater: Rotimi and Aidoo</td>
</tr>
<tr>
<td>2012</td>
<td>Oklahoma Film and Video Studies Society Conference</td>
<td>The Obscuring of Desire in Buñuel’s Cet obscure objet du désir</td>
</tr>
<tr>
<td>2011</td>
<td>University of Tulsa Student Research Colloquium</td>
<td>Family Horror: Silent Hill, Texas Chainsaw Massacre, and The Devil’s Backbone</td>
</tr>
<tr>
<td>2010</td>
<td>University of Tulsa Student Research Colloquium</td>
<td>Linear vs. Non-linear: How Structure Affects Perception in New Media</td>
</tr>
</tbody>
</table>

**publications + conferences**

**press + interviews**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Interview with Hugo Arcier</td>
<td><a href="http://www.paper-thin.org/hugo-arcier---interview.html">http://www.paper-thin.org/hugo-arcier---interview.html</a> I conducted and translated this interview</td>
</tr>
<tr>
<td></td>
<td>Interview with Andy Lomas</td>
<td><a href="http://www.paper-thin.org/andy-lomas---interview.html">http://www.paper-thin.org/andy-lomas---interview.html</a> I conducted this interview</td>
</tr>
<tr>
<td>2015</td>
<td>Visit This Virtual Gallery for an Anti-Gravity Art Experience</td>
<td><a href="http://thecreatorsproject.vice.com/blog/visit-this-virtual-art-gallery-for-an-anti-gravity-art-experience">http://thecreatorsproject.vice.com/blog/visit-this-virtual-art-gallery-for-an-anti-gravity-art-experience</a> Creator's Project (Vice)</td>
</tr>
</tbody>
</table>
## skills + interests

<table>
<thead>
<tr>
<th>Category</th>
<th>Tools and Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Fabrication</td>
<td>Rhinoceros, Fusion 360, MakerWare, FormLab, Meshmixer, CNC, 123D Make, Memento, Recap, Laser Cutting</td>
</tr>
<tr>
<td>Virtual Reality and Game Development</td>
<td>Oculus Rift, MiddleVR, CAVE, Leap Motion, Unity, Unreal, Maya, Mudbox, 3D Studio Max, Motion Builder</td>
</tr>
<tr>
<td>Interactive Multimedia</td>
<td>Arduino, Wiring, Flash, Processing, HTML, CSS, WebGL, Java, JavaScript, C#, C++, C</td>
</tr>
<tr>
<td>Film and Video Art</td>
<td>After Effects, Premiere, Photoshop, Cinema4D, Red Giant Suite, Final Cut Pro, Audition, Nuke</td>
</tr>
<tr>
<td>French</td>
<td>Great French translation skills</td>
</tr>
</tbody>
</table>
Nitocris Perez  
University Information Technology Services, Indiana University  
2709 E. Tenth Street  
Bloomington, IN 47408-2671  
(812)855-5962 nitperez@iu.edu

**PROFESSIONAL APPOINTMENTS**

Indiana University, Bloomington, IN --Emerging Technology Analyst 2014 to Present  
Indiana University, Bloomington, IN --Emerging Technology Specialist 2012 to 2014

**PUBLICATIONS AND PRESENTATIONS**

*Virtual and Augmented Reality in Teaching and Learning* (with Olga Scrivner) - FALCON conference, 2016


UITC Statewide IT Conference 2015  
CEWIT Techie Women Have More... Conference 2015  
Citrix Synergy 2014  
UITC Statewide IT Conference 2014  
CEWIT Techie Women Have More... Conference 2014  
UITC Statewide IT Conference 2013  
CEWIT Techie Women Have More... Conference 2013  
IU WESiT Executive Board Staff Co-Chair and Technical Advisor 2014 - 2015

**PROJECTS (MOST RELEVANT)**

** TECHNOLOGY SHOWCASE  2012 - 2015**

I designed an immersive environment for students, faculty and staff to interact with emerging technologies including Google Glass, Oculus Rift and telepresence robots. It required continuously researching and monitoring trends, to identify emerging technologies that have potential applications across campus.  

** TECHNOLOGY ROADSHOW  2013 - CURRENT **
I designed a traveling mobile Tech Showcase for students, faculty and staff to interact with emerging technologies including Google Glass, Oculus Rift and telepresence robots at our regional campuses. It required continuously researching and monitoring trends, to identify emerging technologies that have potential applications across campus, training staff in hardware configuration, troubleshooting and making the devices easy to transport. [https://itnews.iu.edu/events/game-on-iupui.php](https://itnews.iu.edu/events/game-on-iupui.php)

**Citrix Workspace Hub and Octoblue Automation Evaluation**

I am working in collaboration with Citrix to evaluate Workspace Hub viability in the academic IT space as a tool for simplifying access to teaching and videoconferencing tools.

The Workspace Hub is a machine which transforms any PC display or conference room TV / projector into an intelligent Workspace for individuals or teams. The hub allows users to connect to a display and share content from a mobile device via proximity using Bluetooth beacons or by scanning a QR code.


**Projects (Others)**

**Wearable Technology Collaboration with AMID**

I created a project to incorporate open hardware and wearable technology development into the IU Apparel Merchandising Fashion Design program curriculum, primarily using lights, sensors and inspiration from Adafruit. The project involved designing and implementing curriculum to teach a group of Fashion Design students about Microcontroller programming, sensors and electronics fundamentals.


**IUanyWare**

This project with the IUanyWare team involved collaborating to create documentation, marketing tools, software and hardware demonstrations and collecting feedback to improve service usability and facilitate adoption by IT professionals in university departments.

**IUanyWare** is a client virtualization (CV) service available to Indiana University students, faculty, and staff. With **IUanyWare**, you can use a web browser or mobile app to run certain IU-licensed software applications without having to install them on your computer or mobile device. [https://iuanyware.iu.edu vpn/index.html](https://iuanyware.iu.edu vpn/index.html)

**Thin Client Computing**

2013
This project involved configuring, evaluating, testing and deploying thin client hardware and operating systems and server management tools from the top 5 enterprise thin client vendors including Dell, HP and NComputing.

A thin client looks like a regular desktop computer, with a monitor, keyboard, and mouse, but has no computer operating system of its own. The thin client consists of a small unit, which communicates directly with IUanyWare over the Internet. [https://kb.iu.edu/d/bdpk](https://kb.iu.edu/d/bdpk)

**MICROSOFT CONTINUUM AND DISPLAY DOCK EVALUATION  CURRENT**

Microsoft Continuum and Display Dock allows users to connect a Lumia 950 or 950 XL to an external monitor, keyboard, and mouse. Office apps and Outlook scale up to create a big screen-optimized work environment creating a PC-like experience that’s powered by a phone. I am currently testing this as a potential option for future staff and student workspaces [http://windows.microsoft.com/en-us/windows-10/getstarted-continuum-mobile](http://windows.microsoft.com/en-us/windows-10/getstarted-continuum-mobile)

**PAPERLESS CLASS PILOT  2014 - CURRENT**

I am responsible for project management of a classroom based Surface 3 tablet pilot. In an effort to create a "paperless" classroom, participating faculty will deliver curriculum and course materials as to be accessed by the students via tablet.

75 Indiana University students enrolled in MATH-V 118 are participating in a paperless classroom pilot during the fall 2015 semester. The Herman B Wells Library is loaning out Microsoft Surface 3 tablets, styluses, and keyboard covers to participating students until the end of the semester. [https://kb.iu.edu/d/bfws](https://kb.iu.edu/d/bfws)

**SYNERGISTIC ACTIVITIES**

**TECH BYTES VIDEO SERIES  2013 - 2015**

I wrote and co produced a video series featuring reviews of emerging technnologies and their potential in the academic space along with featuring innovative ways that IU faculty use technology. [https://youtu.be/dwNMETSxAaA](https://youtu.be/dwNMETSxAaA)

**GOOGLE GLASS  2013 - 2014**

I brought the first pairs of Google Glass to Indiana University through my participation in the initial call for Glass Explorers. I did numerous conference presentations and classroom guest lectures with hands on demonstrations of the device for the academic community [https://youtu.be/5PP_dkLDMoY](https://youtu.be/5PP_dkLDMoY)