Making Learning Authentic: A graduate research methods course redesign and implementation case

Summary of Original Proposal

Krista Glazewski, Jiyoon Jung, Janet Liao (Instructional Systems Technology)

Situating learners in an authentic context poses challenges to instructors, as it requires designing a learning activity that is both authentic and manageable in class and supporting it in a different way. In this regard, we examine a course redesign case where disciplinary research methods are taught through authentic learning activity (i.e., practice research) that targets an undergraduate course as its research site.

We examine instructional changes and learning outcomes from this redesigned course. The instructional changes include:

(1) Authentic practice research that continues throughout the semester, is focused on a single research topic, and involves using a number of research techniques.
(2) Role distribution and weekly curriculum discussion meetings between the instructor and TAs.
(3) End-of-the-semester reflection on the overall learning experience
(4) Post-semester sharing of the practice research findings.

Using the case study method (Yin, 2013), primary data will be collected from graded student coursework and two additional activities: graduate student reflection about learning, and instructor-TA reflection about teaching.

The outcomes of this project will include a description of the authentic practice research activity, summaries on the role of the instructional changes and the kinds of learning, and materials from the reflection activities. The study findings and project outcomes can be used to inform practitioners and researchers who are interested in using authentic learning activities for complex learning goals. It also has implications to those who want to promote collaboration between their graduate research methods course and undergraduate course.
# Cover Sheet

2013 Fall SoTL Grant Proposal

**Making Learning Authentic**: A graduate research methods course redesign and implementation case

Due 10/18/13

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Making Learning Authentic: A graduate research methods course redesign and implementation case.</th>
</tr>
</thead>
</table>
| Investigators                 | Dr. Krista Glazewski (Instructional Systems Technology))  
                                  | Jiyoon Jung (Instructional Systems Technology)  
                                  | Janet Liao (Instructional Systems Technology) |
| Contact Email                 | Dr. Krista Glazewski (glaze@indiana.edu)  
                                  | Jiyoon Jung (jung33@indiana.edu) |
| Funding Level                 | Phase II - $5000 |
| Funding Duration              | December 1, 2014 – May 31, 2015 |
Abstract

Situating learners in an authentic context poses challenges to instructors, as it requires designing a learning activity that is both authentic and manageable in class and supporting it in a different way. In this regard, we examine a course redesign case where disciplinary research methods are taught through authentic learning activity (i.e., practice research) that targets an undergraduate course as its research site.

The process and rationale for redesigning the course provided, we examine instructional changes and learning outcomes from this redesigned course. The instructional changes include: (1) authentic practice research that continues throughout the semester, is focused on a single research topic, and involves using a number of research techniques; (2) role distribution and weekly curriculum discussion meetings between the instructor and TAs; (3) end-of-the-semester reflection on the overall learning experience; and (4) post-semester sharing of the practice research findings.

Using the case study method (Yin, 2013), primary data will be collected from graded student coursework and two additional activities: graduate student reflection about learning and instructor-TA reflection about teaching.

The outcomes of this project will include a description of the authentic practice research activity, summaries on the role of the instructional changes and the kinds of learning, and materials from the reflection activities. The study findings and project outcomes can be used to inform practitioners and researchers who are interested in using authentic learning activities for complex learning goals. It also has implications to those who want to promote collaboration between their graduate research methods course and undergraduate course.
Project Description

Purpose

Situating learners in an authentic context poses challenges to instructors, as it requires designing a learning activity that is both authentic and manageable in class and supporting it in a different way. In this regard, we examine a course redesign case where disciplinary research methods are taught through authentic learning activity (i.e., practice research) that targets an undergraduate course as its research site.

Previously, the redesign process, including the theoretical considerations and judgments made about the instructional changes, has been described (see Appendix). As a next step, the following questions will be asked regarding the implementation of this redesigned course:

• What roles did the instructor assume about the instructional changes?
• What roles did the students perceive about the instructional changes?
• What do learning outcomes look like?
• Where do students attribute their learning?

Significance of the Study

This study emphasizes the role of instructor in consciously designing an authentic activity for a course with novice learners and complex learning goals. The study also focuses on the openness of the learning outcomes and how learners construct knowledge. Attempts to tie the learning outcomes observed back to the instructional changes will also be made. In general, the findings could inform practitioners who attempt to design and implement such learning activities, as well as researchers who investigate instructional design for authentic learning activities.

Moreover, this trial serves as precedent in describing how graduate learning could be tied to undergraduate learning in a potentially enhancing manner. The unique design of the authentic learning activity allows the learning outcomes of R690 students to feed back to the learning experiences of W200 students, through W200 instructors. In other words, W200 provides a venue for authentic research experience in R690; and the outcomes of this authentic research activity can be used to improve future teaching and learning in W200. Specifically, sharing of the R690 outcomes will be carried out at a post-semester presentation with the W200 instructors in 2014 Spring.

Project Outcomes

• A written report describing the final budget and student learning
• Proposal submissions to conferences (e.g., AECT, AERA; see Budget Narrative)
• A project website to disseminate the outcomes
• Artifacts from the project outcomes to promote real-world usage, such as:
From the study findings

<table>
<thead>
<tr>
<th>Description</th>
<th>Contribution (Usage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summaries on the role of the instructional changes and the kinds of learning</td>
<td>Instructors can use it a <em>just-in-time guide</em> in designing authentic activities.</td>
</tr>
</tbody>
</table>

From the process

<table>
<thead>
<tr>
<th>Description</th>
<th>Contribution (Usage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the authentic learning activity used with annotations on the design judgments made to balance between authentic activity vs. classroom activity</td>
<td>Researchers can use it as an <em>example</em> of an authentic activity on learning how to social sciences research. (For a draft, see Appendix)</td>
</tr>
<tr>
<td>Two sets of prompting questions for the reflection activities to guide the reflective thinking about the teaching and learning experiences</td>
<td>These questions can be used as <em>templates</em> for other practitioners who attempt to have a similar kind of reflection activity.</td>
</tr>
</tbody>
</table>

Research Method

To address the research questions, Yin's (2013) guideline to the case study methods was adopted. The case is the redesign course (e.g., R690) and the unit of analysis is the shared experience of each participant role within the redesigned course.

Context.

A *redesigned course*. R690 (Application to Research Methods to IST Issues) is a required course in the Instructional Systems Technology Ph.D program at IU. To teach a variety of disciplinary research methods, the course had adopted instructional design suggestions from situated learning proponents. As a result, the following instructional changes were made: (1) authentic practice research that continues throughout the semester, is focused on a single research topic, and involves using a number of research techniques; (2) role distribution and weekly curriculum discussion meetings between the instructor and TAs; (3) end-of-the-semester reflection on the overall learning experience; and (4) post-semester sharing of the practice research findings (optional for R690 students). The design considerations and judgments are described in the Appendix. In this regard, the course is currently structured around one authentic learning activity that involve graduate students investigating the concept of case-based reasoning from an IU undergraduate course, W200 (Technology Integrate in K-12 Education), as it uses cases to teach reasoning of how to appropriately integrate technology to curriculum.

Classroom, participants, and roles. The classroom allows for a flexible positioning of the tables and chairs to afford various teaching approaches, such as mini-lectures, small group or full class discussions, and access to an instructor computer, a projector, and the wireless Internet. Total of 11 people are participating in the study. Eight of them are 1st year doctoral students who have not had graduate-level research methods courses before. Three of them are investigators in this project and are also the instructor and TAs of the course. The two voluntary TAs are advanced doctoral students who have had taken the course and are at different stages in the doctoral program (4th year and 2nd year). The instructor and TAs have weekly meetings during the semester to reflect
on the previous class and discuss strategies for the next one. The instructor and TAs will also have a retrospective reflection on the course redesign and learning outcomes observed after the semester with the course materials and student samples. TAs are as involved in the classroom conversations and activities as the instructor, while the instructor takes the leading role. In other words, the different social roles typically played by a single instructor are now distributed amongst these three.

**Authentic learning activity.** Based on the instructional changes adopted (see Appendix), R690 is designed around an authentic learning activity (i.e., practice research) that continues throughout the semester, is focused on a single research topic (i.e., case-based reasoning), and involves using a number of research techniques, both qualitative and quantitative. The activity embedded in the course will broadly follow the sequence of preparation, learning of qualitative data collection and analysis (Phase I), learning of quantitative data collection and analysis (Phase II), and reflection (Table 1).

| Preparation | • Literature review  
|             | • Collaboratively finalizing research questions and interview questions (IRB approval) |
| Phase I     | • Individually conducting and transcribing interviews (by R690 students with W200 students)  
| (Qualitative)| • Collaboratively analyzing transcripts for themes and designing a survey instrument |
| Phase II    | • Administer the survey to a larger W200 sample  
| (Quantitative) | • Analyze patterns using SPSS |
| Reflection  | • Reflect on the applied research methods and considerations made during the process |

**Data sources.**
Data will be collected from graded student coursework from R690 and two additional activities: graduate student reflection about learning and instructor-TA reflection about teaching. Details are described below.

**Graded student coursework.** Four graded items on the syllabus that takes up 70% of the R690 course grade are pertinent to addressing the research questions: (1) Thematic analysis of the interview data (15% of the course grade); (2) Pattern analysis of the survey data (25%); (3) critique on a research study (10%); (4) mini-proposal (20%). Among them, the first three show how well learners can apply the knowledge and skills. The mini-proposal has the characteristics of the culminating activity that show evidence of integration of the knowledge and skills learned from the authentic activity. Based on these, a narrative for each student’s learning trajectory and the kinds of learning will be crafted in a narrative format.
**Reflection activities.** Graduate students will engage in a semi-structured reflection activity near the end of the semester. The prompting questions will be used to guide students to think about their learning and the teaching methods used by the instructor and TAs. After the semester, the instructor and TAs will engage in a reflective discussion about their overall teaching experience, as well as how they perceived students were learning from their approach. Both activities will be audio-recorded and transcribed for further analysis.

**Data Analysis.**
Graduate student raw data (from coursework and reflection) will be crafted into individual narratives using a researcher-developed analytic framework (Figure 1) to make explicit the kinds of learning outcomes and the learning trajectory, based on the taxonomy from learning and instruction theories (Martin & Reigeluth, 1999; Reigeluth & Moore, 1999).

![Figure 1. Sample analytic framework for student data](image)

The instructor and TA data from the reflection activity will be thematically analyzed (Richards, 2005) through the observed instructor’s action, particularly around the teaching methods they used, to support learning, such as modeling, coaching, and scaffolding (See Appendix for detailed descriptions). We also recognize these conceptions are inter-related (Collins, Brown, & Holum, 1991; Hatton & Smith, 1995); therefore, the themes can overlap.

Trustworthiness of the researcher interpretation will be addressed by investigators collaboratively discuss the interpretations and use member checking (Fraenkel & Wallen, 2005).
Success Criteria for the Project

The success of the project can be assessed based on:

- Was the project carried out as planned?
- Do the investigators agree that the instructional changes served its intended goals?
- Would the instructor maintain the instructional changes?
- The quality of graduate student data (coursework & reflection)
  - Does it show the complexity of their learning?
  - Does it show the trajectory of their learning?
- The quality of presentation. Did the real audience (W200 instructors):
  - perceive the findings meaningful?
  - made any instructional changes based on the findings?

Dissemination

Upon the completion of the data analysis, the project will seek for appropriate venues for dissemination.

- Within the IU communities, the findings of the practice research will be presented to the W200 instructors.
- Beyond IU, the findings can be submitted to professional conferences, such as 2014 Association for Educational Communication and Technology (AECT) conference in Jacksonville, FL (Fall, exact time not determined) and 2015 American Educational Research Association (AERA) conference in Chicago, IL (April 16-20).
- It will also be publicly available through a project website.

Reflective Teaching Practices

The redesign was initiated based on the instructor’s reflection on teaching of the same course in the past. Attempts were made to best accommodate the suggestions from the instructional design theory within the natural setting of the higher education (i.e., limited resource and time). Advanced graduates volunteered for TA positions, as they too need the experience of curriculum designing and teaching for the future. The IST topic, case-based reasoning, is chosen as context because it currently receives interest of many scholars in the field, as well as the interest of the instructor-TA. This makes it worthwhile to learn in addition to the primary course goal, learning how to research. Whether the outcomes are as intended or not remains further observation and reflection.
References


Budget Narrative

Data Collection and Analysis

- **Reward for Interviewees ($5 * 4 gift cards)**: Using a real research context has a disadvantage of going off-road, as investigators cannot control the setting. However, we needed each and every graduate student researcher in R690 to have an interview. To satisfactorily recruit interviewee for the practice research, we offered a chance to win $5 worth gift card as the reward for participation (which is also commonly done in the real world research). Total of four gift cards will be purchased.

- **NVivo License ($70 * 2 accounts + $125)**: NVivo is a powerful qualitative data analysis tool. IU provides NVivo for students license for $70 per account, per year. For faculty, it is $125 per year. (see [http://rt.uits.iu.edu/visualization/analytics/iu-only/software-prices.php](http://rt.uits.iu.edu/visualization/analytics/iu-only/software-prices.php))

- **Project Assistants ($12 * 40 hours * 2 people)**: After the semester, two project assistants will be hired for project data analysis. The assistants will be receiving $12 per hour.

Community Sharing –Presentation of the Practice Research Findings

The presentation will be in an informal workshop format. To prepare, $50 will be used for printing, snack & beverage for audience. The presentation audience will be around 10 associate instructors and the supervisors. Total of 21~25 people will participate in the presentation, including the presenters (R690 graduate students, instructor, and TAs).

Conference Presentations

2014 Association for Educational Communication and Technology (AECT) conference in Jacksonville, FL (Fall, exact time not determined) and/or 2015 American Educational Research Association (AERA) conference in Chicago, IL (April 16-20) are targeted for study dissemination. The funding will be used for the investigators and presenters among the graduate student researchers to support their conference related expenses including conference registration, travel and lodging.

*AECT & AERA 2013 Convention Early Registration Rates:

AECT: [http://aectorg.yourwebhosting.com/events/registration/default.asp#login](http://aectorg.yourwebhosting.com/events/registration/default.asp#login)


$400 – AECT Conference (Regular)
$195 – AECT Conference (Student)
$195 – AERA Conference (Regular)
$ 80 – AERA Conference (Student)
Travel and Lodging: $250 per conference per person

Total expected expenses are shown in Table 2 on the next page.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Unit</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Collection and Analysis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reward for interviewees</td>
<td>$5 * 4 cards</td>
<td>$20</td>
</tr>
<tr>
<td>NVivo license (IU student)</td>
<td>$70 * 2 students</td>
<td>$140</td>
</tr>
<tr>
<td>NVivo license (IU faculty)</td>
<td>$125 * 1 faculty member</td>
<td>$125</td>
</tr>
<tr>
<td>Project Assistants (Hourly)</td>
<td>$12 * 40 hours * 2 people</td>
<td>$960</td>
</tr>
<tr>
<td><strong>Subtotal:</strong></td>
<td></td>
<td><strong>$1245</strong></td>
</tr>
<tr>
<td><strong>Community Sharing</strong></td>
<td><strong>$50</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Conference Presentation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AECT Regular</td>
<td>$400 * 1 person</td>
<td>$400</td>
</tr>
<tr>
<td>AECT Student</td>
<td>$195 * 4 people</td>
<td>$780</td>
</tr>
<tr>
<td>AERA Regular</td>
<td>$195 * 1 person</td>
<td>$195</td>
</tr>
<tr>
<td>AERA Student</td>
<td>$80 * 4 people</td>
<td>$320</td>
</tr>
<tr>
<td>Travel and Lodging</td>
<td>$250 * 8 people</td>
<td>$2000</td>
</tr>
<tr>
<td><strong>Subtotal:</strong></td>
<td></td>
<td><strong>$3695</strong></td>
</tr>
<tr>
<td><strong>Total Expected Expenses:</strong></td>
<td></td>
<td><strong>$4990</strong></td>
</tr>
</tbody>
</table>
## Research Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>September, 2013</td>
<td>R690 Coursework - Preparation (Lit review, study design, IRB, etc.) - Interview, transcribe, and thematic analysis - Develop and administer a survey &amp; SPSS analysis - Graduate learning &amp; teaching reflections</td>
</tr>
<tr>
<td>October, 2013</td>
<td>Data collection &amp; analysis (NVivo) - Graded student coursework and two additional activities: graduate student reflection about learning and instructor-TA reflection about teaching</td>
</tr>
<tr>
<td>November, 2013</td>
<td>January, 2014 - Presentation - Sharing with W200 instructors</td>
</tr>
<tr>
<td>March, 2014</td>
<td></td>
</tr>
<tr>
<td>April, 2014</td>
<td></td>
</tr>
</tbody>
</table>

## Investigator CVs & Nominating Letter

* See the attached documents after the Appendix.
Appendix

Definitions: Instructional Changes, Instruction, and Learning

- **Instructional changes** is used broadly to capture any strategic decisions the instructor had made prior to and during the instruction to promote positive changes in student learning experience towards the learning goals of the course.
- **Instruction** is operationally used to refer to any actions the instructor takes or decisions made in attempts to invoke targeted learning experience.
- **Learning** is understood as construction rather than a predetermined set of outcomes of instruction. In other words, we assume (and value) that learning outcomes could vary although the instructor implemented an intentional, unified set of instructional approaches.

Redesign Process: Theoretical Considerations and Design Judgments

To show how the instructional changes were made, the original course, theoretical considerations, and design judgments towards the instructional changes adopted in R690 are described.

**Original Course**

New doctoral students in the Instructional Systems Technology (IST) program are required to take R690: Application to Research Methods to IST Issues to learn how to conduct discipline-specific research. However, as a relatively starter course in the program (i.e., it should be taken two years before the qualifying exam), the following instructional challenges had surfaced in the past: Most learners, while some of them are experienced educators, (1) are novices as researchers and (2) lack knowledge on topics and issues that are typically investigated in the IST field. Moreover, they (3) have not yet developed their taste in the kind of research they want to do (4) nor deepened their knowledge on the area of their research interest. These are problematic, as acquiring both breadth and depth in their expertise in the field is considered crucial in the program. Moreover, R690 is the first and the only methods-learning course in the IST research seminar sequence. After R690, students are expected to conduct research on their own. In this regard, a program-level need for instructional changes that could mitigate the aforementioned problems was raised.

**Theoretical Considerations**

Major preconditions of the course are that the learners are generally novices in the disciplinary inquiry and the course content is fairly complex, requiring integration of skills and knowledge. These make adopting instructional approaches from the situated learning theory (Brown, Collins, & Duguid, 1989; Collins, Brown, & Holm, 1991) an appropriate choice. Among the core components of a situated learning environment is designing **authentic learning activities** (Brown et al., 1989; Herrington, & Oliver, 2000; Reeves, Herrington, & Oliver, 2002). Reeves and his colleagues (2002) summarized ten characteristics of authentic learning, which could be used as guidelines in designing an authentic learning activity. According to the authors, authentic activities (p. 565):

1. Have real-world relevance
2. Are ill-defined, requiring students to define the tasks and sub-tasks needed to complete the activity
3. Comprise complex tasks to be investigated by students over a sustained period of time
4. Provide the opportunity for students to examine the task from different perspectives, using a variety of resources
5. Provide the opportunity to collaborate
6. Provide the opportunity to reflect and involve students' beliefs and values
7. Can be integrated and applied across different subject areas and lead beyond domain-specific outcomes
8. Are seamlessly integrated with assessment
9. Create polished products valuable in their own right rather than as preparation for something else
10. Allow competing solutions and diversity of outcome

Design Judgments
These guidelines are selectively adopted to design the authentic learning activity based on its relevancy to the learning context. Particularly, #1 and #5 was emphasized in that the designed activity requires learners to collaboratively research a disciplinary issue (e.g., case-based reasoning) throughout a semester, in which the sub-tasks involve applying qualitative and quantitative data collection and analysis skills and knowledge. #7 will be embedded in the context as a stand-alone activity that involves the instructor using prefabricated prompting questions to support student reflection on their overall learning experience. #8 is incorporated into the curriculum as a culminating activity where each student needs to submit a mini research proposal to demonstrate his or her knowledge about disciplinary research methods. A rubric will be designed and used for assessment.

Due to the unique nature of the educational research, the disciplinary issues for inquiry can be observed in the IU undergraduate courses. For example, case-based reasoning is one of the learning outcomes W200 instructors assume their students to acquire through the course. This condition met, we were able to connect the graduate learning with the undergraduate learning. (We understand this is a unique situation. But, we believe this part of the redesign is worth mentioning as it suggest potential for more cohesive learning community building within the institution.) Moreover, an attempt was made so that both investigators and graduate learners could have a post-semester group presentation of the research findings on case-based reasoning with the W200 instructors.

Instructional Changes Adopted
Based on the conceptual guidelines from the authentic learning approach, the following instructional changes have been made to accommodate the diverse features of the approach:

A. An authentic whole task (= practice research) that
   a. continues throughout the semester,
   b. is focused on a single research topic, and
   c. involves using a number of research techniques;
B. The instructor and two TAs with
   a. distributed roles and
   b. weekly discussion on the curriculum;
C. Student opportunities for
   a. reflection on the overall process and
   b. post-semester group presentation to real audience.
Instructor Roles

Compared to didactic classrooms, a different kind of instructor roles is assumed in the situated learning environment where authentic learning activity is implemented (Brown et al., 1989). These instructor roles can be inferred from the teaching methods instructors use:

- **Modeling** is seen as a instructor-driven teaching method that typically consumes a fixed amount of time in class with an intention of guiding learner's thinking process for a specific learning task.
- **Coaching**, compared to modeling, assumes more informal interaction between instructor and learner but still with the intention of guiding learner’s thinking process for a specific learning task.
- **Scaffolding**, compared to coaching, involves more conscious designing of the curriculum and activities from the instructor. Some researchers define scaffolding includes what instructors had planned in advance or what they perform just-in-time (Saye & Brush, 2002), but the latter overlaps with coaching in that they both capture what instructors do to support learning during its process. Therefore, in this paper, scaffolding is seen as involving only what has been planned in advance.

Theoretical Grounds

Essentially in situated learning environments, instructors has to be more conscious about designing the learning activity and its environment and use teaching strategies that gives students opportunities “to observe, engage in, and invest or discover expert strategies in context” (p. 13, Collins et al., 1991). Collins and his colleagues (1991) suggested using modeling, coaching, and scaffolding as the core teaching methods, use articulation and reflection to raise consciousness about what is being learned, and use exploration to encourage learner autonomy. The former three is associated with what instructors do, whereas the latter three relates to what instructors need to observe from learners as evidence of learning.

References


KRISTA D. GLAZEWSKI, PH.D.
ASSOCIATE PROFESSOR, INSTRUCTIONAL SYSTEMS TECHNOLOGY
INDIANA UNIVERSITY
EMAIL: GLAZE@INDIANA.EDU

1130 W 6TH STREET
BLOOMINGTON, IN 47404
(M) 765-409-2641
(O) 812-856-8457

1998
M.A.
Secondary Education
University of New Mexico, Albuquerque, New Mexico

1995
B.A.
Endorsement in Teaching English as a Second Language
University of New Mexico, Albuquerque, New Mexico

2003
Ph.D.
Dissertation: The Impact of Scaffolding and Student Ability in a Hypermedia,
Problem-Based Learning Unit
Arizona State University, Phoenix, Arizona
Advisor: James Klein

2002
2001
2000
1998
1997
1996
1995

EDUCATION

CERTIFICATIONS AND AWARDS

2009
Rising Star Award
Office of the Vice Provost for Research, New Mexico State University

2008
Dean’s Award for Excellence in Teaching Award
College of Education, New Mexico State University

2007
Leadership Award
American Educational Research Association SIG – Instructional Technology for service to
the SIG from 2004-2006.

2006
Curriculum & Instruction Excellence in Teaching Award Nominee
Purdue University

2005
Service Learning Fellowship
Purdue University

2004
National Science Foundation Junior Faculty Fellow
International Conference of the Learning Sciences

2004
Instructional Technology Young Researcher Award
American Educational Research Association, SIG-Instructional Technology

2003-04
Award for Research Excellence (in recognition of dissertation research)
Arizona State University, Division of Psychology in Education, College of Education

2002-03
P.E.O. National Scholar Award: Arizona State Nominee

2002-03
Preparing Future Faculty Fellow, Arizona State University

1996-99
New Mexico State Teaching Certification (inactive)
Teaching English as a Second Language, Language Arts, and Social Studies
Shortened CV

**ACADEMIC APPOINTMENTS**

**Associate Professor of Instructional Systems Technology**  
Indiana University, Department of Instructional Systems Technology  
Fall 2011 – present

**Associate Professor of Learning Technologies**  
New Mexico State University, Department of Curriculum and Instruction  
Fall 2009 – Spring 2011

**Assistant Professor of Learning Technologies**  
New Mexico State University, Department of Curriculum and Instruction  
Fall 2006 – Spring 2009

**Assistant Professor of Educational Technology**  
Purdue University, Department of Curriculum and Instruction  
Fall 2003 – Spring 2006

**Project Coordinator, PT3@ASU**  
Arizona State University, Preparing Tomorrow’s Teachers to Use Technology (PT3) Department of Education Grant Project  
Fall 2002 – Spring 2003

Managed research and evaluation of field-based technology integration grant project for preservice teacher preparation program. Trained and evaluated teaching assistants. Assisted in coordinating university / school partnerships and field-based courses.

**Teacher**  
Albuquerque Public School District  
Grade 6: Language Arts, Literature, Social Studies  
Grades 6-8: English as a Second Language  
1996 - 1999

**REFEREED PUBLICATIONS**


Belland, B., Glazewski, K. D., & Richardson, J. (2008). A scaffolding framework to support the construction of evidence-based arguments among middle school students. *Educational Technology Research and Development, 56*, 401-422. (NOTE: the first author was awarded the 2007 Educational Technology Research & Development Young Scholar Award for this article).


Shortened CV


**BOOKS**


**BOOK CHAPTERS**


**RESEARCH PROJECTS IN PROGRESS**

Planning and Implementation of PBL: Voices from the Field.
Fostering Technology-Enhanced, Socioscientific Inquiry in Graduate Teacher Preparation.
Expressions of Emerging Agency, Identity, and Participation among Latino Children in an Afterschool Film Program.

**EXTERNAL GRANTS, FUNDED**


INTERNAL GRANTS, FUNDED


Simons¹, K. D. (2004). International Travel Grant. Purdue Research Foundation International Travel Grant Competition, $1,000. Purdue Research Foundation.

Glazewski, K. (2003). Evaluating the Impact of Videocase Modeling on Preservice Teachers’ Self-Efficacy Toward Technology Integration, $1,000. P3T3 Mini-Grant Competition, Purdue University.

EXTERNAL GRANTS, SUBMITTED


EXTERNAL GRANTS, NOT FUNDED


Curriculum Vitae
April, 2013

Jiyoon Jung
1603 E. 3rd Street #218
Bloomington, IN 47401
Phone: (812) 340-9534
E-mail: jung33@indiana.edu

EDUCATION

INDIANA UNIVERSITY
School of Education
2010-Present
- 3rd year doctoral student, Instructional Systems Technology
- Associate Instructor & Research Assistant

EWHA WOMANS UNIVERSITY
School of Education
2007-2009
- Master of Arts in Educational Technology
- Research Assistant & Graduate Assistant

School of Education
2003-2007
- Bachelor of Arts in English Education as a Foreign Language
  (double major in Multimedia)

WORK EXPERIENCE

INDIANA UNIVERSITY
Associate Instructor
Fall 2010, Spring 2011, Fall 2011, Fall 2012, Spring 2013
- W200: Taught pre-service teachers how to integrate technology in class
- TeachTechLab Staff: Assisted college students with technology-related learning needs

Editorial Assistant
Spring 2013
- Interdisciplinary Journal of Problem-Based Learning
- Dr. Michael Grant (Editor, University of Memphis),
  Dr. Krista Glazewski (Co-Editor, Indiana University)

Research Assistant
Spring 2012
- Assisting Dr. Leftwich with teacher education related studies (TPACK)

Design & Development
Summer 2011, Summer 2012
- IDCL Research Group: online doctoral reading course redesign
- PBL-Tech Research Group
  - Help page and User Manual construction
  - PIHNet Workshop at Auburn University, assisted teachers with tools

KOREA EDUCATION & RESEARCH SERVICES (KERIS)
Researcher
2009-2010
- Managed developing online contents for English Language Learners
- Researched and drafted reports on educational use of Web 2.0 technology
- Co-authored a book on educational technology trends in Korea

Korea Education and Research Initiatives (KERI)
Trainee
Fall 2008
- Managed developing online contents for English Language Learners
• Researched and drafted reports on educational use of Web 2.0 technology

EWHA WOMANS UNIVERSITY
Seoul, South Korea

BrainKorea 21 Graduate Researcher
2008

• Designed and tested Learning Presence scale for college students
• Contributed to designing, implementing, validating New Millennium Learner & Performances survey (Korea-OECD Collaboration) and draft writing of the results

EWHA MULTIMEDIA LEARNING CENTER
Seoul, South Korea

Graduate Assistant
2007

• Managed developing online contents for English Language Learners
• Researched and drafted reports on educational use of Web 2.0 technology
• Participated in the Cyber Engineering Education (CEEP) project, sponsored by Korea Research Council for Industrial Science and Technology

TEACHING EXPERIENCE

W200: Computer & Education
Fall 2010, Spring 2011, Fall 2011, Fall 2012

R521*: Instructional Design and Development I
Fall 2012

*Courses are delivered online

KOREAN PUBLICATION


PROCEEDINGS PUBLICATION


PRESENTATION

AECT Conference, Anaheim, California.


D&D PROJECTS

PBL-Tech: Collaborative curriculum development via the SSINet project Spring, 2013
- Biology curriculum development on genetic sequencing and information use

Business Ethics University Online Course Development Summer, 2012
- Storyboarding

University Introduction to Micro-Biology Lab Guide Summer, 2012
- Cover design

Introduction to Micro-Biology University Online Course Development Winter, 2011
- Instructional image illustrations

Samsung Electronics OSHA Course Development Fall, 2010
- Storyboarding
TEACHER WORKSHOP

July 16-19, 2012 Auburn, Alabama
- PBL-Tech: PIHNet Workshop with participating in-service teachers

May 4, 2012 Indianapolis, Indiana
- Christel House Teacher Professional Development Workshop on using PBL-Tech Construction Tools to create curriculum

March 2, 2012 Bloomington, Indiana
- 2012 IST Conference Workshop on The PBL-Tech Project: Using Technology to Support Problem-Based Learning in Teacher Education.

March 2, 2012 Bloomington, Indiana
- PBL-Tech: SSINet Workshop with Q405 students (Instructor: Dr. Park-Rogers)

SERVICE EXPERIENCE

F500 Bloomington, Indiana
Mentoring new W200 Associate Instructors Fall 2012-Spring 2013

Graduate Student Learning Community Bloomington, Indiana
Member, sharing and investigating teacher strategies of interest Fall 2012-Spring 2013

IST CONFERENCE Bloomington, Indiana
Chair of the Selection Committee Spring 2012
- Planning and managing proposal review processes for 2012 IST Conference (Mar. 2)

Manager of Registration Services Spring 2011
- Managed registration services for 2011 IST Conference (Feb. 25)

AECT Bloomington, Indiana
Volunteer for 2011 AECT International Convention (Jacksonville, FL) November 2011
- Assisted with room arrangement & technological needs

KIST (Korean IST community) Bloomington, Indiana
Co-Chair Fall 2012-Spring 2013
- Assisted in community social activities
Yin-Chan (Janet) Liao
Indiana University • 201 North Rose Avenue • Bloomington, IN 47405 • yincliao@indiana.edu

EDUCATION

Ph.D. 2017 (expected)
Department of Instructional Systems Technology
School of Education
Indiana University-Bloomington, Bloomington, Indiana

M.S.Ed. Dec. 2011
Learning Science and Technologies
Graduate School of Education
University of Pennsylvania, Philadelphia, Pennsylvania

Thesis: “The Importance of Teacher Beliefs and Teacher Competency in Technology Integration: Lessons Learned From the U.S. Experience”

B.Ed. June 2008
Elementary Education
National Taipei University of Education, Taipei, Taiwan

ACADEMIC RESEARCH

Research Volunteer, Indiana University, Bloomington, Indiana Feb. 2013 – Present
“Examining Preservice Teachers’ Reasoning Process in Analyzing Technology Integration Cases“
• Review literature on case-based learning and case-based reasoning
• Interview all participants for data collection
• Transcribe and analyze research data

Research Volunteer, Indiana University, Bloomington, Indiana Feb. 2013 – Present
“Investigating Tech-savvy Pre-service Teachers’ Technology Integration Knowledge, Beliefs and Intentions”
• Participate in interviews with participants in this research study
• Transcribe and analyze interview data

“Conditions for Using Digital Games in Schools: A Case Study”
• Reviewed literature on gaming in K-12 classrooms
• Analyzed qualitative and quantitative data
• Drafted results from research study data for AERA 2012 research proposal

“ITEST-Nano” research project
• Organize research surveys, sort and categorize data in different periods of research
• Assist the workshop for teacher professional development in implementing technology into science classes

Research Assistant, Project of National Science Council, Taipei, Taiwan May 2011 – Aug. 2012
“Supervision Mechanism in Graduate School: Lessons Learned from U.K., U.S., and Taiwan”
• Developed research framework with project director
• Reviewed literature on supervision and qualitative research
• Collected data for both background information and the primary data set through pilot research, interviewing, and designing questionnaires
• Transcribed and analyzed data for follow-up interviews and data coding
Independent Study, University of Pennsylvania, Philadelphia, Pennsylvania  
“Mobile Technologies in Second Language Learning”, supervised by Dr. Yasmin Kafai  
• Initiated the study by gathering information on current educational issues for shaping research topic  
• Created the timeline to finish the study in one semester and worked independently  
• Broadened knowledge through reading books and articles related to research topic  

Research Assistant, National Taipei University of Education, Taipei, Taiwan  
2009 – 2010  
“Teacher’s Image in Different Countries”  
• Assisted with data collection, mainly by recording and interviewing  
• Transcribed interview conversations for analysis and organized project meetings  

TEACHING EXPERIENCE

Associate Instructor  
Department of Instructional Systems Technology, Indiana University, Bloomington, Indiana  
Aug. 2013 - Present  
• Develop curriculum and weekly lesson plans for preservice teachers  
• Teach preservice teachers the topic of Technology Integration in K-12 setting  

Graduate Assistant  
Teaching Technology Lab (TTL), School of Education, Indiana University, Bloomington, Indiana  
Aug. 2012 – May 2013  
• Served as TTL lab manager to coordinate teaching and learning service  
• Provided 1:1 instruction to undergraduate students  
• Designed and developed teaching materials  
• Technology demonstration, such as iMovie, SmartBoard activities, and Prezi, etc.  

Tutor  
Penn Alexander Elementary School, Philadelphia, PA  
Sept. 2010 – Dec. 2010  
• Tutored a 3rd grade student with learning difficulties in mathematics and reading  

Practice Teacher  
Huai-Sheng Elementary School, Taipei, Taiwan  
• Instructed Chinese, Mathematics and English courses to 6th graders and received the feedback from co-operate teacher for teaching skill improvement  
• Developed lesson plans, designed activities, and made teaching materials such as PowerPoint slides and posters  
• Supported classroom management by dealing with daily student affairs  

Practice Teacher  
St. Stephen’s CEVA Primary School, Bath, UK  
Feb. 2008  
Winsley Primary School, Bath, UK  
Fitzmaurice Primary School, Bath, UK  
• Constructed a one-month teaching curriculum for Chinese language and Chinese Culture learning  
• Developed lesson plans, taught Chinese language and culture lessons, and organized extra-curricular activities  
• Created video clips, PowerPoint presentations, posters to facilitate teaching in multicultural classroom  
• Observed and videotaped in British teachers’ classroom  

Practice Teacher  
National Taipei University of Education, Taipei, Taiwan  
Assistant to the Chair, Department of Elementary Education  
2006 – 2008  
• Assisted with undergraduate student affairs in the office three times a week  
• Built and maintained the chair’s official website  

Teaching Assistant of “Action Research” course  
2007 – 2008  
• Prepared teaching materials and facilitated students’ learning in class  
• Arranged visiting speakers to give talks in classes and prepared handouts
Teaching Assistant of “Grounded Theory” course 2006 – 2007
- Prepared teaching materials and reviewed articles related to grounded theory and general qualitative research
- Participated and recorded in the class study group

PUBLICATIONS

LEADERSHIP EXPERIENCE

Vice President of Social & Professional Event Aug. 2013 - Present
Graduates of Instructional Systems Technology (GIST), Indiana University, Bloomington, Indiana
- Organize professional development events, such as invite guest speakers to present on topics related to Instructional Systems Technology field
- Organize workshops on profession growth for graduate students in Department of Instructional Systems Technology and Adult Education program
- Organize social events for faculty members and graduate students in IST to build better connection and relationship with colleagues and scholars

Instructional Systems Technology Annual Conference, Indiana University, Bloomington, Indiana
- Organized roundtable discussion sessions
- Established connection among IST faculty members, students, and scholars from other institutions
- Organized reception catering

Vice President Dec. 2010 – Dec. 2011
UPenn Taiwanese Graduate and Professional Student Association (TGPSA)
- Organized social events such as Chinese New Year Banquet and Cherry Blossom Tour
- Established connection between students from other associations, both academically and socially
- Acquired sponsorship from Citibank and fundraised from local communities

Overseas Project “Trans-national Chinese Practice Teaching” in Ministry of Education, Taiwan
- Participated in the overseas teaching project and the proposal writing
- Facilitated group discussions
- Located schools in England to participate in this project

AWARDS
- Nova Southeastern Award for Outstanding Practice by a Graduate Student in Instructional Design: Engaging Preservice Teachers in Personal Learning Networks, Association for Educational Communications and Technology International Convention, Anaheim, CA, 2013

SERVICE EXPERIENCE

Facilitator Oct. 2013
Association for Educational Communications and Technology International Convention, Anaheim, CA
- “Strategies for Preservice Teacher Technology Integration”, Teacher Education Division

Facilitator Oct. 2012
Association for Educational Communications and Technology International Convention, Louisville, KY
- “Problem-Based Learning and Teacher Education”, Teacher Education Division
October 16, 2013

To Whom It May Concern:

As chair of the Department of Instructional Systems Technology (IST), I fully support the SoTL grant application entitled "Making Learning Authentic: A graduate research methods course redesign and implementation case" led by Dr. Krista Glazewski with the support of Jiyoon Jung, a doctoral student in our department, and nominate their proposal to the review committee. I believe this research has the potential to greatly enhance our doctoral-level research courses and experiences, and that the information garnered from this study can both assist the IST program as well as other programs on campus in providing more meaningful and authentic experiences in introductory research classes. If you have any questions, please do not hesitate to contact me.

Sincerely,

Thomas Brush
Barbara B. Jacobs Chair in Education and Technology
Department Chair, Instructional Systems Technology