Design of Formative Evaluation of Experiential Learning Activities in an Online Masters Course

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Agenda

- **Background**
  - What is experiential learning?
  - Experiential learning at Nova Southeastern University (NSU)
- **Research Problem and Goal**
- **Experiential Learning in an Master's Online Project Management Course**
  - Context
  - The Civic-minded IT Professional
  - Project Management Plan Assignment
- **Formative Evaluation**
  - NSEE's Eight Principles of Good Practice for All Experiential Learning Activities
  - What worked, what didn't, and what improvements can be made?
- **References**

Background

What is experiential learning?

"In its simplest form, experiential learning means learning from experience or learning by doing. Experiential education first immerses learners in an experience and then encourages reflection about the experience to develop new skills, new attitudes, or new ways of thinking" (Lewis & Williams, 1994, p. 5).

Experiential learning serves as a foundation for lifelong learning and the development of the whole self as a citizen, family member and human being (Kolb, 2015).

NSU and ExEL

- In Fall 2017, Nova Southeastern University (NSU) launched its experiential education and learning program (ExEL) for its undergraduate students.

- Students earn ExEL credits through curricular and co-curricular experiences including:
  - internships,
  - study abroad,
  - community service,
  - faculty-led research,
  - ExEL-designated courses (i.e., first year seminar, capstones, and discipline-specific courses)

ExEL for Graduate Students?

- Experiential learning is lifelong learning that aims to prepare students for the ill-defined and complex problems that they will experience in the workplace.

- Experiential learning opportunities need to be designed to meet the needs of various learner populations and experience levels.

- For graduate students who might already have professional careers, it prepares them for what is to come next.

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Research Problem & Goal

Research Problem

- Efforts to develop experiences to **prepare students for professional careers** are not new and experiences such as internships, co-ops, study abroad, service learning, and project-based courses are common among traditional undergraduate education to help students gain real-world experiences in their profession (Jacoby, 2015; Monroe, et al., 2006; Pollard, 2012).
- In addition, a desire to develop students who are **more civic-minded and socially aware** has led to research studies focusing on how to educate the student of the 21st Century (Koritz, Schadewald, & Hubert (2016).
- However, most of the research has focused on how to design and deliver experiential learning for **undergraduates in a face-to-face environment.**
- Fewer studies have offered guidance on how to implement **experiential learning with graduate students in online and networked learning environments** (Campbell, 2016; Strait & Sauer, 2004).

Goals

- **Today's Goal:** To describe how experiential learning was implemented in an online graduate course in information systems project management and discuss what worked, what didn't work, and what improvements can be made.
- **Research Goal:** To develop an instructional design (ID) theory that can be used to guide the design and development of authentic experiential learning activities in online graduate courses with the intention of developing civic-minded professionals.

Experiential Learning in an Online Graduate IS/IT Project Management Course

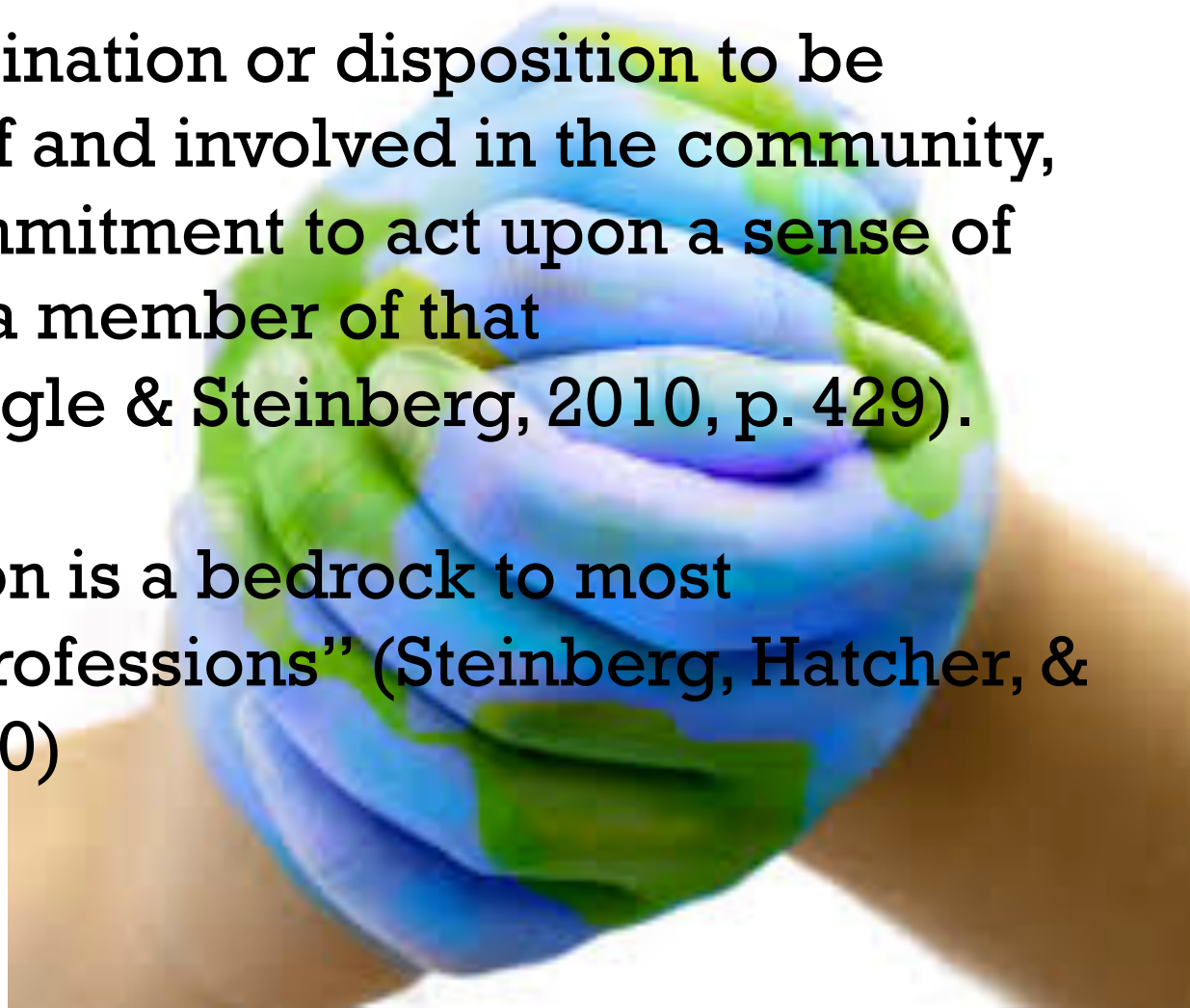
Context

- Fully online master's project management course for students in information technology, information systems, and cybersecurity.
- 16-week course delivered asynchronously through Blackboard.
- Socio-technical approach to managing IT/IS projects including planning, scheduling, organizing, implementing, and closing projects.
- 5 quizzes (50%); monthly online discussion (20%); project management plan (30%).

Civic-minded IT/IS Professional

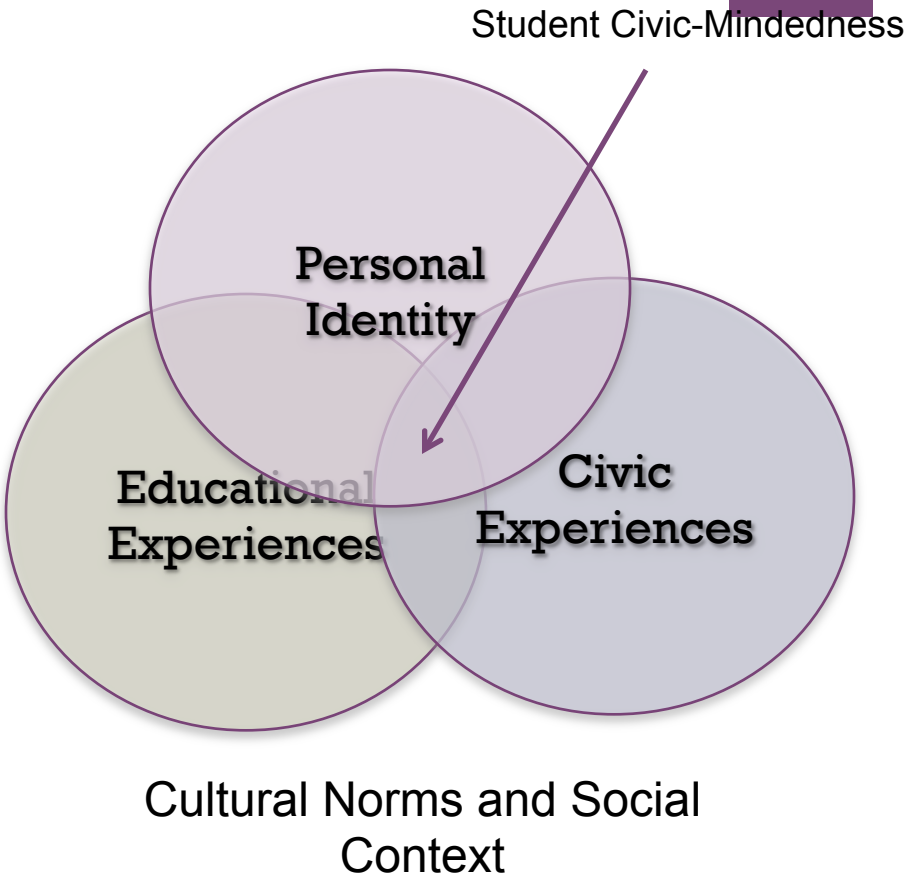
"…a person's inclination or disposition to be knowledgeable of and involved in the community, and to have a commitment to act upon a sense of responsibility as a member of that community" (Bringle & Steinberg, 2010, p. 429).

"…civic orientation is a bedrock to most disciplines and professions" (Steinberg, Hatcher, & Bringle, 2011. p. 20)



Civic-mindedness

- **Personal Identity** – A person's self-awareness, self-understanding and self-concept
- **Educational Experiences** – A person's academic knowledge, competencies gained through academic experiences
- **Civic Experiences** – A person's involvement in volunteer work, community service, political engagement



Steinberg, et al. (2011)

Project Management Plan Assignment

- Work individually or in small groups of 2-3
- Develop a project plan using PM tools and techniques (11 sections delivered throughout the 16 weeks)
- Can be a product, service, or result of their choice that advances public good (i.e., has a social, economic, environmental, or pedagogical impact).
- Project should be one that demonstrates unique skill sets as civic-minded IS or IT professionals.
- Examples: developing a website, mobile app, or digital game designed to educate people about digital literacy, childhood obesity, cybersecurity, privacy, hunger, poverty, mental health, elderly services, etc.; developing an information system that supports the need of a non-profit organization; planning a community event such as a walk, workshop, or conference.

#	Deliverable	PMBOK Knowledge Areas	Week Due
1	Project Charter	Project Integration Management	4
2	Requirements Traceability Matrix, Scope Statement, Work Breakdown Structure	Project Scope Management	7
3	Project Network, Cost Model, Quality Standards/ Measurements	Project Time Management, Project Cost Management, and Project Quality Management	9
4	RACI Chart, Communication Plan	Project Human Resource Management, Project Communication Management, Project Risk Management	12
5	Risk Register, Change Request, Statement of Work, Keys to Success	Project Procurement Management, Project Stakeholder Management	14
6	Reflection and Self/Peer Evaluation Form (for groups only)	N/A	15

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Formative Evaluation

NSEE's Eight Principles

1. **Intention:** All stakeholders have a clear understanding of why the chosen experience is being used.
2. **Preparedness and Planning:** Students must have sufficient foundation to engage in the experience.
3. **Authenticity:** Experience has real-world context.
4. **Reflection:** Ample time throughout the experience to internalize learning.
5. **Orientation and Training:** All stakeholders need relevant background information about the experience.
6. **Monitoring and Continuous Improvement:** Feedback loop – opportunities for formative evaluation.
7. **Assessment and Evaluation:** Alignment with learning goals – summative evaluation.
8. **Acknowledgement:** All stakeholders involved in recognition and celebration of learning.

National Society for Experiential Education (NSEE) Eight Principles of Good Practice for all Experiential Learning Activities - https://nsee.memberclicks.net/8-principles

What Worked?

- Flexibility of project selection
- Flexibility in working alone or with a small group
- Flow of assignment deliverables

Project Examples

- Community Hospital Management System
- Information Security Awareness Website
- Alzheimer's Mobile App
- Veterans Reintegration Website
- App Development for Tracking of Life Saving Measures in Rural Environments
- Dungeons and Dragons: Teaching Socialization Skills to Adolescents on the Autism Spectrum
- Community LED Lighting Upgrade
- Control Obesity Mobile App

What Didn't Work?

- Method of orienting students to civic-professionalism and its value
- Facilitation of group formation
- Student reflection
- Celebration of learning

What Improvements Can be Made?

- Better introduction to the concept of civic-minded professionals, its importance and relevance to IT/IS professionals.
- Better facilitation of group formation.
- Requirement for all students to reflect on their learning (not just those in groups)
- Establish a permanent way to acknowledge learners for their successes

References

Campbell, G. (2016, January/February). Networked learning as experiential learning. *Educause Review*, 70-71.

Jacoby, B. (2015). *Service-learning essentials: Questions, answers, and lessons learned*. San Francisco, CA: Jossey-Bass.

Kolb, D.A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Upper Saddle River, NJ. Pearson Education, Inc.

Koritz, A., Schadewald, P., & Hubert, H. (2016). Civic professionalism: A pathway to practical wisdom for the liberal arts (White paper). *Imagining America: Artists and Scholars in Public Life*.

Lewis, L. H. & Williams, C.J. (1994). Experiential learning: Past and present. In L. Jackson & R.S. Caffarella (Eds.). *Experiential learning: A new approach* (pp. 5-16). San Francisco, CA: Jossey-Bass.

Monroe, W.T., Mailander, M. & Lima, M. (2006). Focus on experiential education: A freshman engineering program in biological engineering. *International Journal of Engineering Education*, 22(6), 1129-1138.

Pollard, C.E. (2012). Lessons learned from client projects in an undergraduate project management course. *Journal of Information Systems Education, 23*(3), 271-282.

Steinberg, K.S., Hatcher, J.A., & Bringle, R.G. (2011). Civic-minded graduate: A north star. *Michigan Journal of Community Service Learning,* 19-33.