LEVERAGING TECHNOLOGY FOR CRITICAL REFLECTION AND SERVICE-LEARNING

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THE BELIEF THAT ALL GENUINE EDUCATION COMES ABOUT THROUGH EXPERIENCE DOES NOT MEAN THAT ALL EXPERIENCES ARE GENUINELY OR EQUALLY EDUCATIVE.

JOHN DEWEY
OVERVIEW

Laying Groundwork: Service Learning/HQSLE
Reflection: Research, Definitions, and Observations
Transformative Learning and Reflection
Reflection vs. Critical Reflection
Challenges to Reflection
Technology Tools for Reflection
Examples in Practice
Worksheet: Planning for Reflection
DEFINITION OF SERVICE LEARNING

A credit-bearing educational experience in which students:

- (a) participate in an organized service activity that meets identified community needs
- (b) reflect on the service activity in such a way as to gain further understanding of curricular content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility.

- Bringle & Hatcher (1995)
HIGH QUALITY SERVICE LEARNING

Six Markers of High Quality Service Learning

- Integrated learning
- Community service
- Collaborative development and management
- Civic engagement
- Contemplation
- Evaluation and disclosure

(Smith et al., 2011)
## MULTIPLE INTELLIGENCES AND SERVICE LEARNING

Multiple Intelligences Theory (Gardner, 1983; 2000)

Service and experiential learning engages multiple competencies and intelligences.

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical-mathematical</td>
<td>Logic, reasoning, abstraction, and critical thinking</td>
</tr>
<tr>
<td>Spatial</td>
<td>Spatial intelligence and ability to visualize in the mind</td>
</tr>
<tr>
<td>Linguistic</td>
<td>Verbal capabilities; reading, writing, storytelling, memorization</td>
</tr>
<tr>
<td>Bodily-kinesthetic</td>
<td>Motor skills and “making”</td>
</tr>
<tr>
<td>Musical</td>
<td>Auditory learning</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>Introspective</td>
</tr>
<tr>
<td>Naturalistic</td>
<td>Relating information to one’s surroundings</td>
</tr>
<tr>
<td>Existential (debated)</td>
<td>Spiritual or otherworldly elements; relationships to spiritual life</td>
</tr>
</tbody>
</table>
REFLECTION: AN OVERVIEW
DEFINING REFLECTION

Dewey (1933) defines reflection as “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends”

Daudelin (1997) defines reflection as “process of stepping back from an experience to ponder, carefully and persistently, its meaning to the self through the development of inferences.”
TRANSFORMATIVE LEARNING/ COGNITIVE RATIONAL APPROACH

DISORIENTATION
  Service Experiential Intercultural

CRITICAL REFLECTION
  Informal, Online Reflection
  Formal, Private Reflection
  Digital Portfolios

DIALOGUE
  Online and F2F Class Discussion
  Debriefs after SL/EL
  One-on-One Meetings

ACTION
  Knowledge Gained
  Change in Attitudes
  Change in Behavior
  Change in Meaning Perspective
**REFLECTION VERSUS CRITICAL REFLECTION**

<table>
<thead>
<tr>
<th>Reflection</th>
<th>Critical Reflection</th>
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<tbody>
<tr>
<td>Steps back from the moment and records feelings, reactions, thoughts on experience or curricular material (Daudelin, 1997)</td>
<td>Critical reflection is an essential part of the transformative learning process, as it aids the ability for learners to connect, understand, and make meaning of their experience and how it affects their worldview and sense of self (Mezirow, 1990).</td>
</tr>
<tr>
<td>Ruminates on the experiences and curricular material presented to the student</td>
<td>Challenges previously held assumptions</td>
</tr>
<tr>
<td>Can be done in many formats</td>
<td>Can be done in many formats</td>
</tr>
<tr>
<td></td>
<td>Draws inferences, analyzes past behavior, and challenges meaning perspectives</td>
</tr>
<tr>
<td></td>
<td>Can be evidence of a meaning perspective shift</td>
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</tbody>
</table>
Schank & Jona (1991) affirm the use of technology as a magnification of traditional teaching methods. When used meaningfully, instruction can be of a higher quality with longer lasting results.

Electronic portfolios – collections of online artifacts and reflective writing – are an effective tool to promote critical reflection and as a tool to develop identity (Stansberry & Kymes, 2007).

Yukawa (2006) found that online mediation of reflection and artifact creation can lead to better learning outcome attainment and instructor-student relationship.

Mayhew & Enberg (2010) found that online discussion forums introduced into sociology courses allowed for more authentic interactions between students, higher empathy.

Gair (2011) found that empathy can be encouraged and exemplified in reflective writing.

Cranton (2010) asserts transformative transfer and processing can be fostered in an online format.
3 PERSONAL RESEARCH EXAMPLES

- Teen mothers reflecting on their life, parenthood, and self-worth (Stanlick, NCSS, 2010).

- Undergraduates serving abroad reflecting in group discussion and privately on their experiences (Stanlick, NCSS, 2013; in review).

- First-year undergraduates developing global citizen identity through service, experiential, and traditional curriculum (Stanlick, dissertation, in progress).
Reflection can be...

- Written
- Produced
- Recorded
- Discussed
- Curated and Commented
- Done in groups or individually
- Mobile
- Frequent
- Summative
CHALLENGES TO QUALITY REFLECTION

- Lack of Time / Frequency
- Unclear goals and expectations
- Accessibility of tools
- Unclear sense of value to students
TECHNOLOGY DOES NOT INHERENTLY MAKE YOU A BETTER TEACHER.
BACKWARDS DESIGN (WIGGINS & MCTIGHE, 2005)

Identify Desired Results

- Learning Objectives
- What you want students to leave knowing

Determine acceptable evidence

- How will you know they “got it?”

Plan experiences and instruction

- Use what you know to create meaningful activities
WHAT DOES REFLECTION LOOK LIKE IN SERVICE LEARNING SETTINGS?

Group reflection in the car ride home from service sessions.

Formal, written papers on service experience.

Informal, in-class discussion on experience.

Student reflective journals

Creation of art pieces/artifacts to capture emotion or connections between curriculum and service.
## What Tools Are Available?

<table>
<thead>
<tr>
<th>Type of Reflection</th>
<th>Tool(s)</th>
<th>Usage</th>
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</thead>
<tbody>
<tr>
<td>Written, Unprompted</td>
<td>Word; Google Docs; Notepad; “Notes” app</td>
<td>Student journals; debrief documents; capturing thoughts on the spot</td>
</tr>
<tr>
<td>Written, Prompted</td>
<td>L/CMS Forums (Moodle, Blackboard, included features); Uploading documents</td>
<td>Formal papers/ Poems/ Word processing</td>
</tr>
<tr>
<td>Group Discussion</td>
<td>Google Hangout; Snapchat</td>
<td>Bringing together students to debrief; students stationed in different locales</td>
</tr>
<tr>
<td>Blogging</td>
<td>Wordpress; Blogger</td>
<td>Informal reflection (prompted or unprompted) from anywhere; frequently</td>
</tr>
<tr>
<td>Microblogging</td>
<td>Twitter</td>
<td>Mobile responses to on-the-spot</td>
</tr>
<tr>
<td>Curation / Collaborative</td>
<td>Storify; Wikis</td>
<td>Collaborating on a guide to service; capturing pertinent articles from the news and connecting to experience</td>
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<tr>
<td>Photography</td>
<td>Instagram; Facebook; Flickr</td>
<td>Creative reflective artifacts; putting together visual representation of learning</td>
</tr>
<tr>
<td>Multimedia Portfolio</td>
<td>Instagram; Photovoice</td>
<td>Putting together multiple experiences or assignments; making sense of many inputs.</td>
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EXAMPLE #1: FORUM DISCUSSION

Leveraging the forum feature in Moodle (or other LMS)

Writing to Learn: Prompted, Short Reflection

1 individual reflection required; 2 comments on colleagues posts required

Additional Material: Adichie TED talk
STUDENT REFLECTION/RESPONSES

Identifying Connections to Past Biases

- “I was originally from Northeast China, so when I made friends with students from either the Western or Southern area, they always asked me: How come you have such a good temper after growing up from a region where everybody is easily irritated?”

Addressing Social Media’s Role

- “Ever since 9/11, social media has played a significant role in shaping the thoughts of the American population. Ever since 9/11, social media has played a significant role in shaping the thoughts of the American population.”

Connection to Prior Knowledge (Discipline-specific)

- Psychology lends itself to the theory that humans seek out people who are similar to themselves for purposes of safety, comfort, and familiarity. Society embraces support groups based on shared background, culture, or ethnicity. But in my opinion, self-segregation is divisive and extremely destructive.

Self-Identification of Prior Biased Behavior

- The TED talk forced me to consider the fact that just because I don't negatively stereotype people, I still stereotype them with my pity.
EXAMPLE #2: MOBILE/ MICROBLOGGING

Abroad service trip – Students have access to mobile technology.

Use Twitter to capture brief, processed reflections of their experience.

Use Instagram or Tumbler to capture photos. Guide students on a prompt or theme to capture photos.

Use of hashtag to capture all reflections from the same cohort. Look for patterns, thoughts, indicators of student change.
# BLOOM’S TAXONOMY & TWITTER

<table>
<thead>
<tr>
<th>CREATE</th>
<th>EVALUATE</th>
<th>ANALYZE</th>
<th>APPLY</th>
<th>UNDERSTAND</th>
<th>REMEMBER</th>
</tr>
</thead>
</table>
| - Invent a Twitter application  
- Create a fake but accurate Twitter profile for a historical or literary figure  
- Remix trending tweets with video and music to create a PSA | - Combine multiple tweets on a single topic into a story  
- Criticize a Twitter user’s argument  
- Predict trending words and phrases based on current Twitter trends and world news  
- Convince someone on a topic based purely on tweets for evidence | - Compare & contrast Twitter to other forms of social media  
- Analyze tone in different tweets  
- Examine bias in different tweets  
- Diagram a web showing connections between popular/trending tweets | - Give an example of a tweet for an assigned political leader  
- Illustrate popular/trending tweets  
- Paraphrase a book, poem, or text using 140 characters | - Summarize tweets on a relevant topic  
- Translate tweets in other languages  
- Estimate the number of tweets a user will post based on previous tweets per day  
- Rewrite tweets in your own words | - Follow relevant Twitter users (historians, scientists, etc.)  
- Define major elements of Twitter (tweet, hashtag, etc.)  
- Observe geographical trends in tweets with TrendsMap  
- Match political tweets with political parties |

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<table>
<thead>
<tr>
<th>Subject or Discipline</th>
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<tbody>
<tr>
<td>Topic or Unit</td>
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<tr>
<td>Community Partner</td>
<td></td>
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<tr>
<td>Service Location</td>
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<tr>
<td>Frequency of Service</td>
<td>Is it a…?</td>
</tr>
<tr>
<td></td>
<td>☐ Sustained, semester-long service commitment</td>
</tr>
<tr>
<td></td>
<td>☐ One-time service experience</td>
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<tr>
<td>What curricular connections do you want the students to make?</td>
<td></td>
</tr>
<tr>
<td>What are your identified learning outcomes?</td>
<td></td>
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<tr>
<td>Look at your learning outcomes. Based on those outcomes, what are three questions you could use to prompt students?</td>
<td></td>
</tr>
</tbody>
</table>
| What technologies do you have available through your institution and/or can be accessed without barriers? | □ Moodle  
□ Blackboard  
□ Twitter  
□ Drupal  
□ iMovie/MovieMaker  
□ Google Hangout  
□ Facebook  
□ Joomla  
□ Google Docs  
□ Edmodo  
□ Skype  
□ Wordpress  
□ Blogger  
□ Instagram  
□ Google Sites  
□ Mahara  
□ Other |
| What challenges do you foresee in your reflection data? (Privacy, identifiers, revelation of sensitive information, etc.) |  |
| Are there any curricular materials that would supplement this prompt (i.e. an article; a TED talk video; etc.)? |  |
RECAP

Service learning engages diverse learners and allows student voice into the learning process.

That student voice should be captured in frequent reflection to aid the process of learning and the meaningful perspective shift of transformative learning.

A High Quality Service Learning Experience (HQSLE) involves integrated learning, community service, collaborative development and management, civic engagement, contemplation, and evaluation and disclosure.

Reflection can be leveraged in many different ways — formal/informal; sustained/one-off; public/private.

Reflection should be planned to leverage the skills of the students, help the process the disorienting information, and

Reflection with technology is a way that instruction can be enhanced, deepened, and allows for transformative learning to flourish and be exhibited.