Affordances and Constraints of Technology-enhanced Tools for Learning Oriented Assessment in Second Language Learning

Teachers College-Columbia University Roundtable on Learning Oriented Assessment in Language Classrooms and Large-scale Assessment Contexts
October 10-12, 2014
Research Team

Lee B. Abraham
Lecturer
Department of Latin American & Iberian Cultures

Steve Welsh
Educational Technologist
Columbia Language Resource Center

Paul Joseph Stengel
Educational Technologist
Columbia Center for New Media Teaching and Learning
Background

“.... few studies surveyed have actually examined students’ progress and specific language learning outcomes. We suggest, therefore, that future empirical research should examine how students’ language proficiency and/or intercultural competence is enhanced or impacted in using Web 2.0 tools.”

(Wang & Vásquez, 2012, p. 424)
Curricular Context

Students in 3rd semester Spanish courses at Columbia/Barnard complete one of the following two course projects involving fieldwork in New York City:

1) Social Media for Language Learning in ÑYC
   Designed by Reyes Llopis-García, Department of Latin American and Iberian Cultures, Columbia University

2) The Latino Diaspora in New York
   Designed by Juan Pablo Jiménez Caicedo, Department of Latin American and Iberian Studies, Columbia University
Curricular Context

Course Project: The Latino Diaspora in New York

- Intermediate Spanish I (3rd semester course)
- Students conduct two interviews with the same member of a Spanish-speaking diaspora community in New York City
- Proposal, Annotated Bibliography, Research, Essay, Oral Presentation
Research Questions

1) To what extent do L2 learners of Spanish provide different levels/functions of peer feedback (Hattie & Gan, 2011) on drafts of three assignments for a course project?
2) To what extent do learners provide specific feedback (Narciss, 2008) on drafts of three assignments for a course project?
Research Questions

3) Do learners use the peer feedback in order to complete the assignments?
4) What are learners’ perceptions of the importance of peer feedback and self-assessment for L2 learning?
Applying the Dimensions of Learning-Oriented Assessment

1) Contextual (Instructional)
2) Elicitation (Planned or spontaneous)
3) Proficiency (e.g. what should and/or must be assessed)
4) Learning (Theories of learning and cognition)
   a) The role of feedback and assistance
5) Instructional (Teachers’ knowledge of second language)
6) Interactional (e.g. Repair sequences, scaffolding)
7) Affective (What are students’ motivation, personality traits?)

Turner & Pupura, forthcoming
Analyzing the Role of Potential Agents in LOA

- Language, Content, Teachers
- Curriculm, Materials, Standards
- Peers
- Technology

Purpura & Turner, 2014, LOA Keynote
Challenges

Provide students with opportunities to engage the cultural community outside the classroom to increase cultural competency
Challenges

Incorporate peer perspectives throughout these activities to enrich and magnify student’s cultural awareness
Dominant Epistemology

Knowledge is either….

Declarative or Procedural
Personal Knowledge Types

Stable
Implicit understanding
Episodic
Impressionistic
Skills
Regulative

Bereiter, 2002
Personal Knowledge Types

“Competence in any domain will likely involve all six kinds of knowledge.”

Bereiter, 2002
Hypothesis: Self assessment and peer feedback in a blog motivate student “attunement” of cultural knowledge.

Bereiter, 2002
Intercultural Competence

Byram, 1997
Intercultural Competence

Byram, 1997
Course Project Objectives

The Latino Diaspora in New York
Project designed by Juan Pablo Jiménez Caicedo, Lecturer, Department of Latin American and Iberian Studies

Objectives
1) To expand students’ cultural knowledge about themes in the Spanish-speaking world
2) To develop students knowledge of narrative and expository genres
3) To practice speaking and listening in Spanish
4) To increase their vocabulary knowledge
5) To practice grammatical concepts based upon the production and editing of their own essays and through peer editing/revision
Course Project Objectives

Objectives
1) To expand students' cultural knowledge about themes in the Spanish-speaking world
Design

- **Self-assessment**: Listened to each interview to identify use of grammar and vocabulary learned in the semester
- **Peer Feedback**: Provided primarily on one other peer’s content
- **Instructor Assessment**: Focused on error correction (grammar, vocabulary) and content
Design

Technologies

- Reflective writing space: Wikispaces & EdBlogs
- Interviews: SoundCloud
## Feedback Design in the Blog

<table>
<thead>
<tr>
<th>Activity</th>
<th>Instructor Feedback</th>
<th>Peer Feedback</th>
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<td>Oral Presentation Final</td>
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Technology & Feedback Options (Williams, Brown, & Benson, 2013, p. 128)

**Media and Technology Feedback Time Line**

**Feedback in PC ERA**
- Increased speed and flexibility (synchronous, asynchronous, anywhere)
- Mostly individual except for audiotapes (distance education)
- Feedback recorded for later reference (e.g., email, audio)

**Feedback in WEB 1.0 ERA**
- Improved individual feedback (e.g., dropbox, attachments, tracked changes)
- Group feedback (discussion, chat)
- Authentic feedback—individual (e.g., multimedia) and group (e.g., role plays)
- Automated feedback (quizzes, multimedia)
- Provision for repeated attempts and recorded feedback

**Feedback in WEB 2.0 ERA**
- Feedback increasingly communal/networked (access to people and resources)
- Integrated as part of authentic, timely, immersive group tasks
- Flexible, audiovisual feedback (e.g., podcasts, frequently authentic, e.g., visual)
- Egalitarian or easy access to experts
- Other automated options (e.g., clickers)

**Technology & Feedback Options**

**PC ERA**
- 1980 → 1990
  - Desktop computers
  - Email (emerging)
  - Telephone
  - Voicemail, mobile, audiographics
  - Audio
    - Cassettes, Walkmans
  - Video
    - Cassettes, VCRs

**WEB 1.0 ERA**
- 1990 → 2000
  - Desktops, laptops
  - WWW (dial-up); email/listserv/attachments; MS Windows; Java; Adobe; databases; search engines
  - LMSs (incl chat, discussion, quizzes, assignment dropbox)
  - Telephone
  - Mobile, SMS, conferencing
  - Audio/video/multi-media
  - CD, DVDs, videoconferencing

**WEB 2.0 ERA**
- 2000 → 2010
  - Laptops, tablets
  - WWW (broadband, wireless); social software incl multimedia (wikis, blogs, social networking, podcasts, virtual worlds, Google Applications, YouTube, etc.); Skype
  - LMSs with collaborative tools
  - Smartphones
  - WW; SMS; images; video microblogging (Twitter)
  - Other mobile devices
    - mp3 players, PDAs, clickers, etc.
Technology & Feedback Options

Web 2.0 Era (2000 → ?)

- Mobile computing
- Social software including multimedia (wikis, blogs, social networking, podcasts, virtual worlds, Google Applications, YouTube);
- LMSs with collaborative tools
- Smartphones and Tablets
- Microblogging; Twitter
- Point to point collaboration (Skype, videoconferencing, etc)

Feedback in the Web 2.0 Era

- Social discussion platforms (Disqus, blog commenting, etc)
- Feedback increasingly communal/networked (access to people and resources)
- Integrated as part of authentic, timely, immersive group tasks
- Flexible, audiovisual feedback
- Egalitarian or easy access to experts
- Polling software (Socrative, Turning Point, clickers etc)

Based on Williams, Brown, & Benson, 2013.
Instructor Feedback Loop

1. STUDENTS' PRIOR EXPERIENCES OF ASSESSMENTS IN THE SUBJECT/IN THE UNIT

feed-forward into next assignment/assessment

5. SUPPLEMENTARY SUPPORT

review feedback

4. FEEDBACK ON PERFORMANCE/ACHIEVEMENT

submit assignment

2. PRELIMINARY GUIDANCE ABOUT EXPECTATIONS & REQUIREMENTS

embark on assignment

3. ONGOING CLARIFICATION OF EXPECTATIONS

6. FEED-FORWARD (i.e. DEPLOYMENT OF ENHANCED UNDERSTANDING AND/OR SKILLS IN SUBSEQUENT ASSESSMENTS)

[Hounsell, McCune, Hounsell, & Litjens (2008), p. 60]
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[Hounsell, McCune, Hounsell, & Litjens (2008), p. 60]
What is feedback?

“Feedback is all post-response information that is provided to a learner to inform the learner on his or her actual state of learning or performance.” (Narciss, 2008, p. 127)
What is the problem with feedback?

Boud and Molloy (2013a)

- More than ever, students express dissatisfaction with feedback
- We have focused on the ‘delivery’ of feedback by teachers to students, as if most of the important parts of the process are the actions of teachers.
What is the solution?

Boud & Molloy (2013b), p. 710

Rethinking feedback for learning repositions feedback

1) “From an act of teachers to an act of students in which teachers are part (from unilateral to co-constructed; from monologue to dialogue).”

2) “From an act of students as individuals to one that necessarily implicates peers (from individualistic to collectivist) ...”
Learning-oriented Assessment

“... all activities undertaken by teachers and students have the explicitly, intended consequence of providing information that can inform decisions about how to guide and support learning.” (Purpura, 2009, p. 313)
Learning-oriented Assessment

Figure 1. Framework for learning-oriented assessment  Carless, 2007, p. 60
Learning-oriented Assessment

Certification purpose

Learning purpose

Learning-oriented assessment

Assessment tasks as learning tasks

Student involvement, e.g. as peer- or self-evaluators

Feedback as feedforward

Figure 1. Framework for learning-oriented assessment

Carless, 2007, p. 60
Technology Design

Fall 2013

Wikispaces Example

Spring 2014

edblogs

a blog for every Columbia course
First Iteration - Wikispaces Example
¡Bienvenidos a SoundCloud y al Blog de Español 1201.001, Primavera 2014!

How to add media to your post

See this article for tips on adding media to your posts.
Plantilla

Acerca de mí [10 de marzo o antes]

Temas del proyecto [10 de marzo o antes]

Objetivos del proyecto [10 de marzo o antes]

Preguntas: Entrevista 1 [10 de marzo o antes]

Entrevista 1 (Enlace de SoundCloud) [10 de marzo o antes]

Apuntes: Entrevista 1 [10 de marzo o antes]

Reflexión: Entrevista 1 [10 de marzo o antes]
El proyecto de Colleen

Me llamo Colleen soy de California, y soy un estudiante de segundo año de la neurociencia que estudia en la Universidad de Columbia.

Mi proyecto es sobre la cultura mexicana específicamente acerca de la comida mexicana, y cómo ha influido la comida y cultura en los Estados Unidos.

Preguntas: Entrevista 1 [10 de marzo o antes]
Multimodal Literacy

“What it means to be literate in the digital era of the 21st century is different than what was needed previously. If literacy is to be relevant to the demands of the multimodal environment of the larger world it must move away from the reduction of literacy to a static series of technical skills or risk fostering a population of functional illiterates.”

Jewitt, 2005
Second Language Learning with Web 2.0 tools

Multimodal tools
Afford students the ability to bring in interviews, images, and other artifacts into a multimodal writing space

Jewitt, 2005
Second Language Learning with Web 2.0 tools

Networked writing spaces
Afford students time to reflect and exchange peer feedback in a shared space outside of the classroom
Second Language Learning with Web 2.0 tools

Curation and modeling
Allow students to view exemplars

“If students are to make sense of feedback and put it to good use, they must develop a firm grasp of what counts as excellent work in a subject at a given level.”

Sadler, 2010
# Project Assignments & Tools

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## Project Assignments & Tools

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Selected Student Topics

The Influence of Major League Baseball in the Dominican Republic

Bilingual Education in New York City and Miami, Florida: One Student’s Experiences

The Nuyorican Poets Café and Puerto Ricans in Lower Manhattan

Rap and Hip-Hop Music for Political and Social Activism in Cuba

A Comparative Exploration of Race and Identity in Nigeria and the Dominican Republic

Perspectives on the Catalan Independence Movement and Spanish Government

Mexican Immigration and Food in the United States

Immigration Experiences among Ecuadorian Women and Changes across Generations

Rock Music in Colombia

The Influence of Major League Baseball in the Dominican Republic

Bilingual Education in New York City and Miami, Florida: One Student’s Experiences
Distribution of 7 Comments

3 comments on drafts of assignments:

1. Comment on first of peer’s two interviews
2. Comment on peer’s first version of essay
3. Comment on peer’s draft of oral presentation
Distribution of 7 Comments

4 comments on the following:

1. Peer’s final interview
2. Peer’s final essay
3. Peer’s actual oral presentation
4. Final version of peer’s project
Method
Coding Scheme

1) Levels/Types of Feedback  (Hattie & Timperley, 2007)

2) Elaborated Feedback  (Narciss, 2008)
Information about each level of feedback
Students’ Use of Peer Feedback

1) Two researchers independently coded 88 comments for the following features:
   a) Feedback level/type (Hattie & Timperley, 2007, pp. 90-97)

2) They independently coded the final versions of the essay and oral presentation as well as the second interview for either the presence or absence of some element of peer feedback.
# Coding: Levels of Feedback

(Hattie, 2012, p. 116)
Coding: Elaborated Feedback

0 = Feedback not given
1 = Knowledge of the correct response/result; Confirms peer’s correct result/product
2 = Knowledge of mistakes/errors: Indicates incomplete, incorrect or missing information in peer’s product (KME)
3 = Knowledge about how to proceed (KHP) only
4 = KME and KHP
5 = Not applicable (for example, when a peer praises in a comment, but does not provide any kind of elaborated feedback (Narciss, 2008)
Overall Findings
Students’ Use of Peer Feedback

1) Overall, peers provided process-level (39%) and self-regulation-level (47%) feedback, which have been identified as important feedback features for enhancing learning (Hattie & Gan, 2011).

2) For specificity, peers provided feedback not only about missing information but also about how peers should proceed (86%) with final versions. The results indicated that students incorporated peer feedback for the final essay (90%), second interview (70%), and oral presentation (63%).
Students’ Perceptions of Assessments

1) Student perceptions about the importance of peer feedback varied widely.

2) Students perceived both self-assessment questionnaires as valuable tools for improving on the second interview and for developing learner autonomy.
Students’ Comments for Different Levels of Feedback
Blog Prompt 1: First Interview

Listen to your peer’s first interview. What are two follow-up questions that she/he should ask in the second interview? Explain why she/he should do so.

What are two specific examples of what you learned in the interview (i.e. content)?
Blog Prompt 2: Draft of Essay

What are five recommendations for your peer’s draft of the essay regarding any of the following components: organization, vocabulary (varied use of words or too much repetition), the use of connectors thus far in the semester?
Blog Prompt 3: Draft of Oral Presentation

Second, what are two recommendations that you could make to improve the content of the oral presentation? For example, is there some element that should be added or is there some feature that could be deleted?
Task-level Feedback

“There were many parts of your interview in which I thought that you did really well. For example, in 7:00 you followed-up the response of the interviewee who mentioned what her favorite Mexican holiday by asking her when it was celebrated in Mexico.”
Process Level Feedback

“It is a good idea to include a conclusion at the end of your presentation. The conclusion could include a review of the main points of your presentation.”
Self-regulation Level Feedback

“I know many Mexican Americans who do not how to speak Spanish and therefore, their siblings who do speak Spanish do not consider them to be part of the culture. Do you believe that language is important for cultural identity in the same way in the Dominican Republic? What did your interviewee mean in 8:28 when she stated that opportunities for dark-skinned Dominicans “have not changed so much, but they have changed enough.”?
Summative Comment

“Your essay was very interesting and it opened my eyes to subjects that I never considered before. Before, I did not understand why someone would switch back and forth between Spanish and English. But now I am beginning to understand why they (sic) do this in each language. I enjoyed reading your blog and listening to your interviews with Ana. The things that I learned about the use of Spanish and English and the life of a bilingual child in the United States, and the cultural differences between North Americans and Venezuelans inspire me to investigate this (sic) in the future in classes, and specifically in large cities like New York.”
Survey Results
Post-Project Survey Results

82% (40 of 49 students) completed survey
Survey Comments

“I think peer feedback is very useful. However, it would be better if the peers interacted more, and got to know more of each other in that when giving feedback it wouldn’t just be about beating deadlines but helping a friend.”
Survey Comments

“Feedback from the professor and other students was more than plenty to help me improve throughout.”
Directions for Future Research

- Provide exemplars and then analyze the feedback provided by peers
- Manage self-assessment and peer feedback by breaking the feedback process into components:
  - Perform task
  - Assess performance
  - Select tasks to improve future performance
  - Repeat (Merriënboer & Sluijsmans, 2009)
Directions for Future Research

- Calibration: Provide students the ability to upvote exemplary feedback (peer mediation)
Thank You.

Lee B. Abraham
Department of Latin American and Iberian Cultures
lba2133@columbia.edu
laic.columbia.edu

Paul Joseph Stengel
Columbia Center for New Media Teaching and Learning
pstengel@columbia.edu
ccnmtl.columbia.edu

Steve Welsh
Columbia Language Resource Center
steve.welsh@columbia.edu
lrc.columbia.edu
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Boud, D., & Molloy, E. (2013a). What is the problem with feedback? In D. Boud & E. Molloy (Eds.), *Feedback in higher and professional education: Understanding it and doing it well* (pp. 1-10). London: Routledge.
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