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

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Research Team



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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:

- 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 Spanishspeaking 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?)

Analyzing the Role of Potential Agents in LOA

Language, Content, Teachers

Peers

Curriculum, Materials, Standards

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

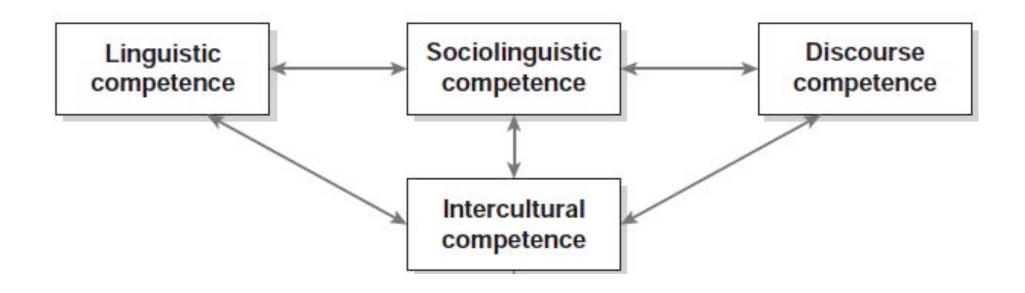
Personal Knowledge Types

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

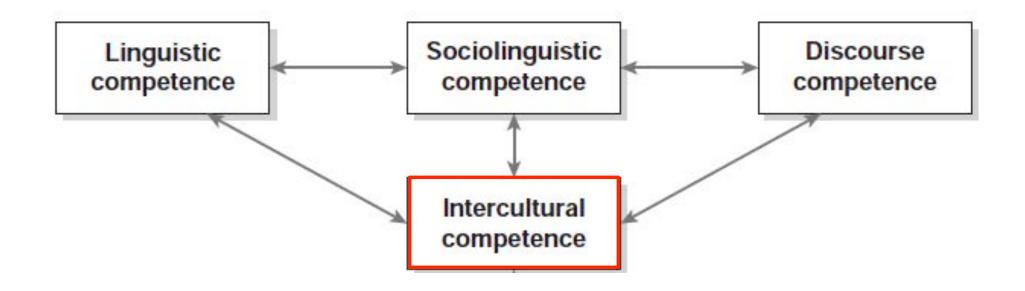
Hypothesis: Self assessment and peer feedback in a blog motivate student "attunement" of cultural knowledge.



Intercultural Competence



Intercultural Competence



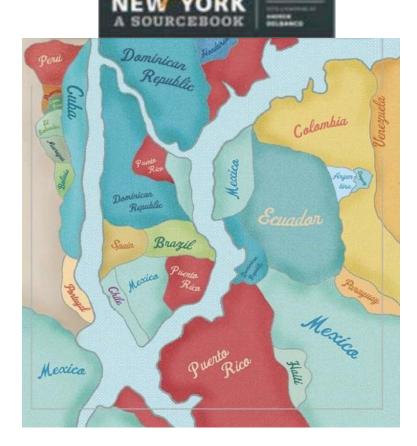
Course Project Objectives

The Latino Diaspora in New York

Project designed by Juan Pablo Jiménez Caicedo, Lecturer, Department of Latin American and Iberian Studies

Objectives

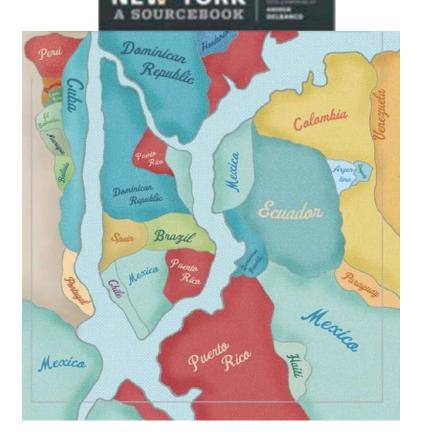
- 1) To expand students' cultural knowledge about themes in the Spanish-speaking world
- 2) To develop students knowledge of narrative and expository genres
- 3) To practice speaking and listening in Spanish
- 4) To increase their vocabulary knowledge
- 5) To practice grammatical concepts based upon 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

<u>Activity</u>	Instructor Feedback Corrective (grammar)	Peer Feedback Content
Proposal	✓	
Annotated Bibliography	\checkmark	
Questions for Interview 1	✓	
Interview 1		\checkmark
Questions for Interview 2	\checkmark	
Interview 2		\checkmark
Essay: Draft	✓	\checkmark
Essay: Final	✓	✓
Oral Presentation Draft	\checkmark	✓
Oral Presentation Final	✓	✓

Technology & Feedback Options (Williams, Brown, & Benson, 2013, p. 128)

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/ listservs /attachments; MS Windows; Java; Adobe; databases; search engines
- LMSs (incl chat, discussion, quizzes, assignment dropbox)
- Telephone
- Mobile, SMS, conferencing
- Audio/video/multi-media
- CDs, DVDs, videoconferencing

WEB 2.0 ERA

2000 -> 2010

- · Laptops, tablets
- WWW (broadband, wireless); social software Incl. multimedia (wikls, blogs, social networking, podcasts, virtual worlds, Google Applications, YouTube, etc.); Skype
- LMSs with collaborative tools
- Smartphones
- WWW; SMS; images; video microblogging (Twitter)
- . Other mobile devices
- mp3 players, PDAs, clickers, etc.

Media and Technology Feedback Time Line

Feedback in

PC ERA

- Increased speed and flexibility (synchronous, asynchronous, anywhere)
- Mostly individual except for audiographics (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

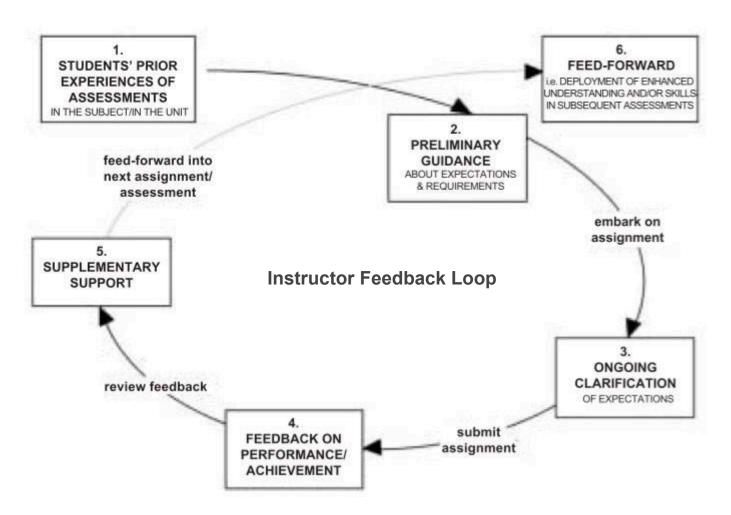
Web 2.0 Era (2000 → ?)

- 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)

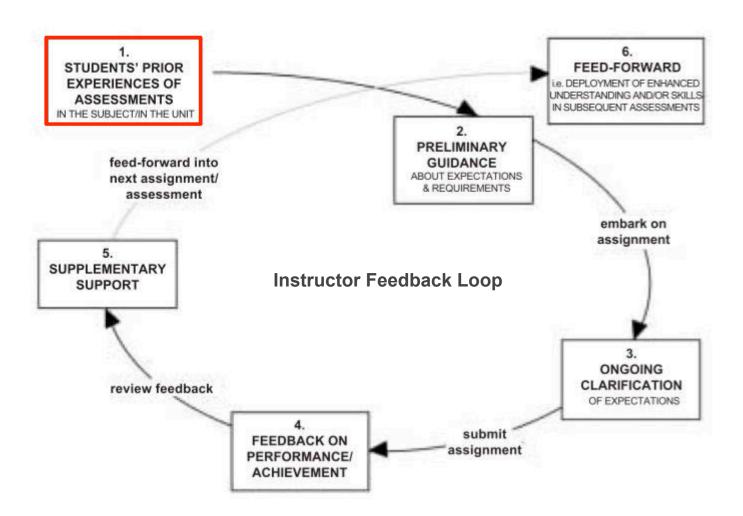
Feedback in the Web 2.0 Era

- 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)

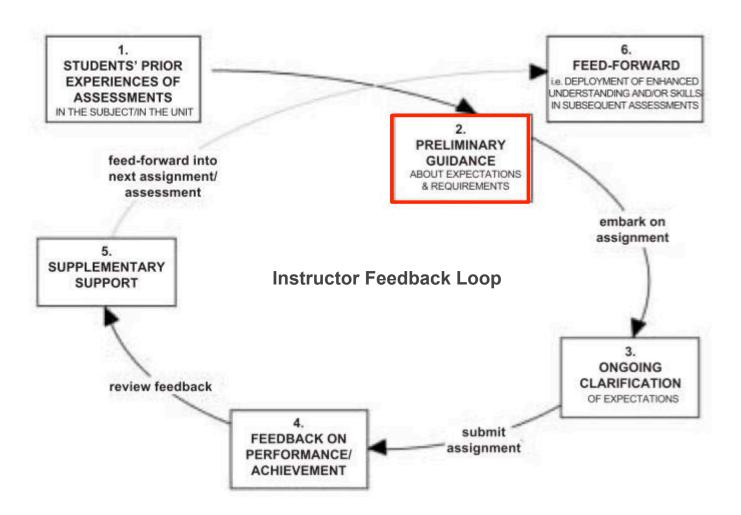
Based on Williams, Brown, & Benson, 2013.



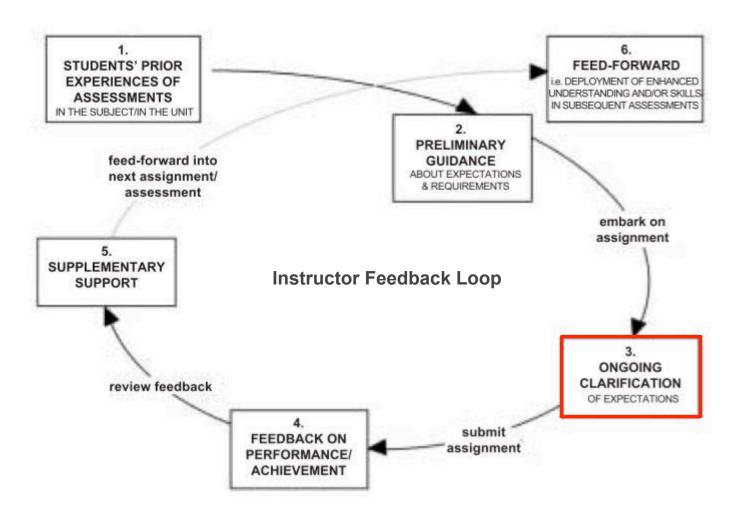
[Hounsell, McCune, Hounsell, & Litjens (2008), p. 60]



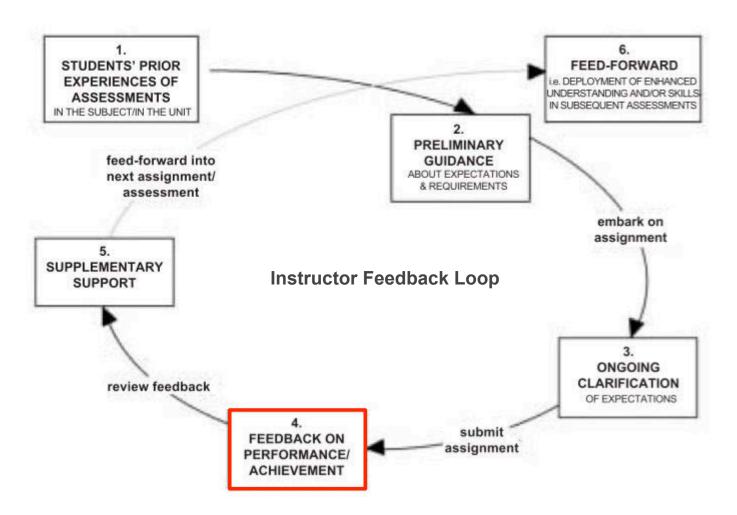
[Hounsell, McCune, Hounsell, & Litjens (2008), p. 60]



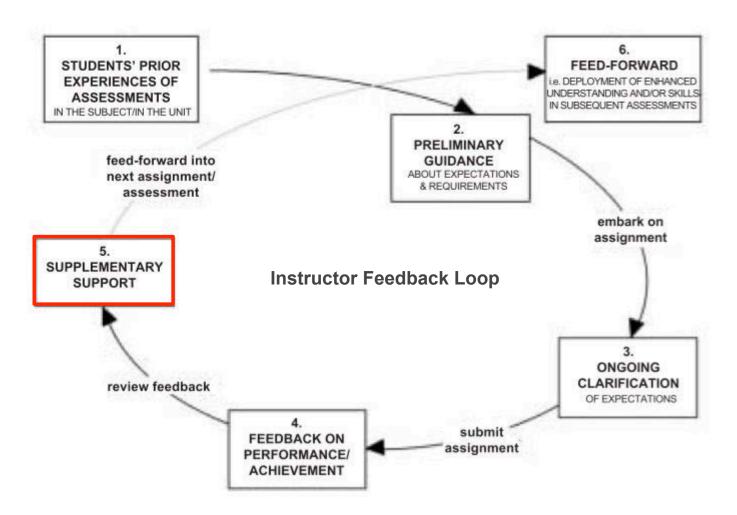
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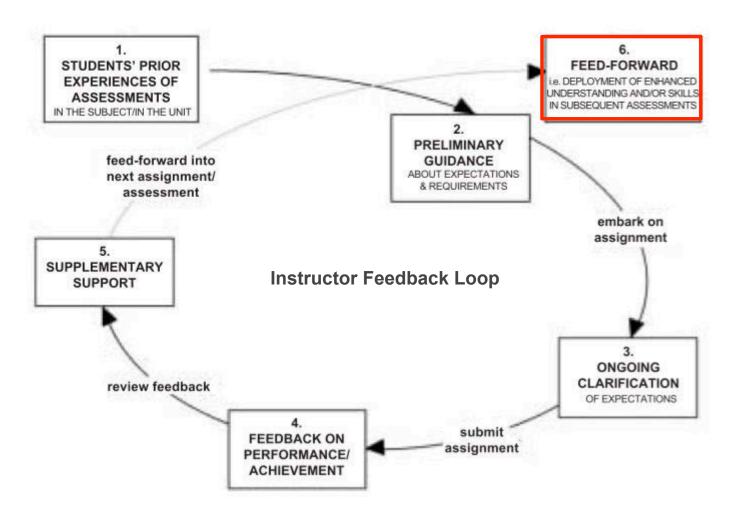
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What is feedback?

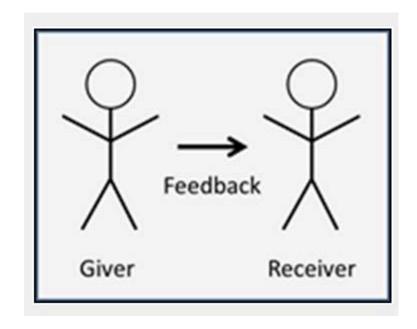
"Feedback is all postresponse information that is provided to a learner to inform the learner on his or her actual state of learning or performance." (Narciss, 2008, p. 127)



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

- "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

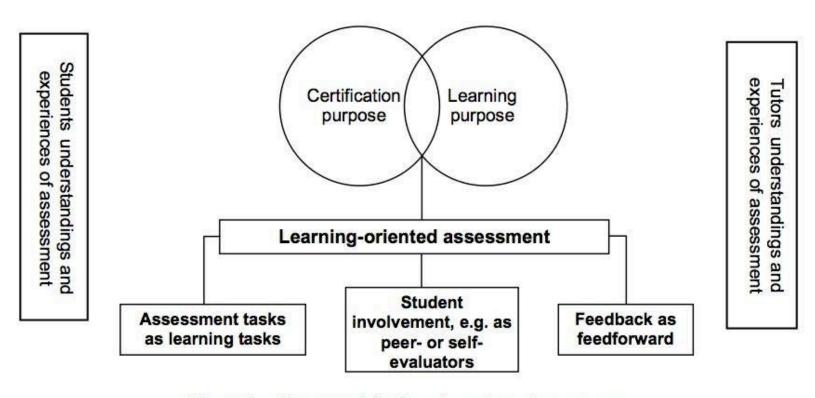


Figure 1. Framework for learning-oriented assessment

Carless, 2007, p. 60

Learning-oriented Assessment

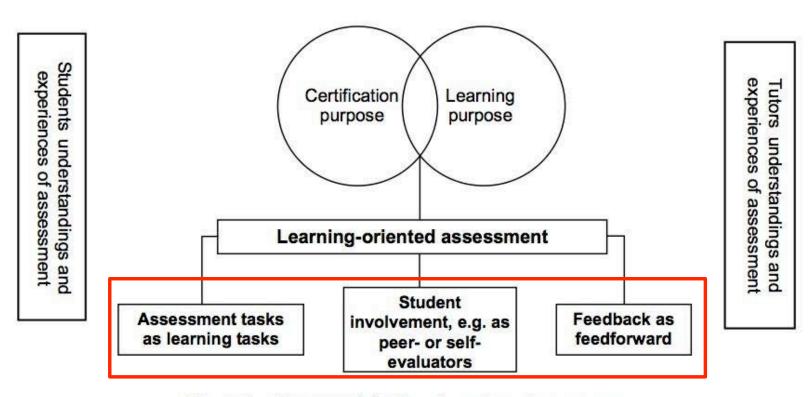


Figure 1. Framework for learning-oriented assessment

Carless, 2007, p. 60

Technology Design

Fall 2013



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Wikispaces Example

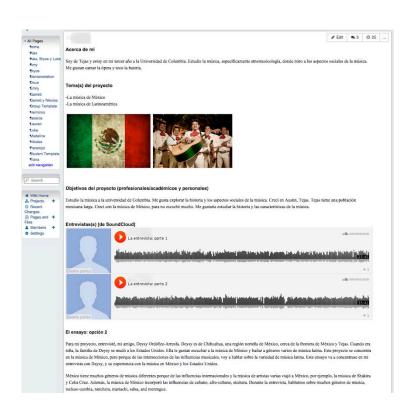
Spring 2014



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First Iteration - Wikispaces Example



El ensayo: opción 2

Para mi proyecto, entrevisté, mi amigo, Deysy Ordófiez-Arreola. Deysy es de Chihuahua, una región nortefia de México, cerca de la frontera de México y Tejas. Cuando era niña, la familia de Deysy se mudó a los Estados Unidos. Ella le gustan escuchar a la música de México y bailar a géneros varios de música latina. Este proyecto se concentra en la música de México, pero porque de las intersecciones de las influencias musicales, voy a hablar sobre la variedad de música latina. Este ensayo va a concentrase en mi entrevista con Deysy, y su experiencia con la música em México y los Estados Unidos.

México tiene muchos géneros de música diferentes porque de las influencias internacionales y la música de artistas varias viajó a México, por ejemplo, la música de Shakira y Celia Cruz. Además, la música de México incorporó las influencias de cubano, afro-cubano, etcétera. Durante la entrevista, hablamos sobre muchos géneros de música, ireluso cumbis incopera, mariacis islas and menempas.

Mariachi es un grupo de músicos. Ellos jugaron varios géneros de música, especialmente ranchera (Ilich). La orquesta mariachi incluso los violines, las trompetas, y las guitarras (Ilich). Un intérprete de mariachi muy famoso y clásico es Alejandro Fernández, el hijo del cantante de ranchera Vicente Fernández. La música de ranchera habla mucho sobre amor, patriotismo, y naturaleza (México). Un tema muy popular de la música de Alejandro Fernández nes el amor. Las telenovales de México usa la música de Alejandro Fernández frecuentemente. Fernández nos econocentró en un genero de música, pero romanticismo es un tema común en su música.



Mariachi y ranchera son muy populares para los eventos tradicionales, por ejemplo la quinceañera, una ceremonia donde una niña tiene 15 anos. El evento tiene una ceremonia y un recepción, donde la música es más importante. La música acompaña de la niña durante su entrada. Además, la música, especificamente un vals, juega durante la danza de la niña, donde ella baila con un niño y 14 parejas. Durante la recepción, mariachi es muy popular, junto con la música del Caribe, pop, etéctera.

En el norte de México, bandas, cuando muchos músicos juegan los instrumentos de viento y percusión, son muy populares. Las bandas son de Sinalos, un estado norteño de México (Ilich). En general, las bandas juegan muchos generos de música popular, especificamente cumbia, cordos, y bolero (Ilich).

Singer Aleiandro Fernández

Finalmente, la música para ballar es muy popular, por ejemplo son, salsa, y merengue. La balle de salsa tiene fi ritmos (uno-strea-cinco-sei-sei-tel); Por otto facio, merengue es más rápido que salsa y tiene 2 ritmos (uno-do-sun-dosd). Los gámeros usan muchos instrumentos, inclaso los tambores, que son como las congas. Pase a los dos balles son populares, merengue es más popular en México porque la balle es más ficil y la música incorpora los instrumentos electrónicos, por ejemplo el teclados Cuando se trada de salsa, una cantante muy importante es Cella Cruz. Cruz fue cubana-americana y cantó muchos géneros de másica. Sin embargo, ella fue un conocida cantante de salsa y recibió el nombre, "La reina de la salsa."

La Bibliografia

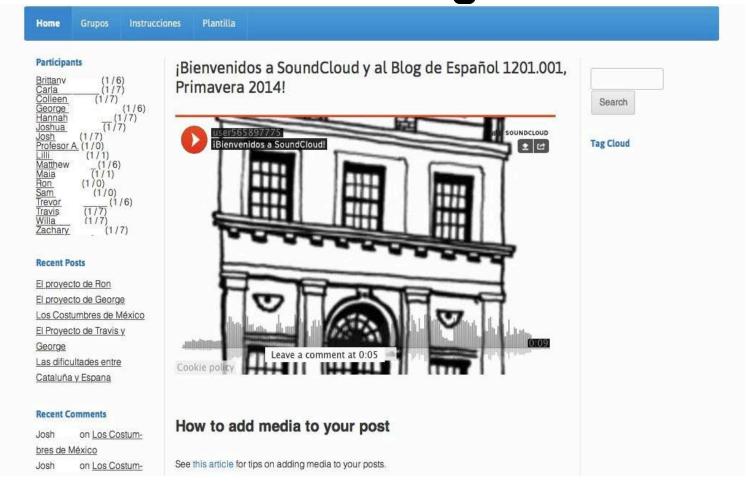
Ilich, Tijana. "Mexican Popular Music - Tejano, Norteno, Banda." About.com. N.p., n.d. Web. 13 Sept. 2013.

http://latinmusic.about.com/od/countrie1/p/PRO18BASICS.htm

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Ordóñez-Arreola, Deysy. "La música de México." Personal interview. 6 Oct. 2013.

Second Iteration - EdBlogs



EdBlogs - Student Template

Grupos Instrucciones Plantilla 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]

Second Iteration - EdBlogs Example

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."

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

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."

Project Assignments & Tools

	FALL 2013	SPRING 2014
Comments (Peer Feedback)	1 comment	7 comments
Self-assessment(s)	1	2
Tools	Wikispaces & SoundCloud	EdBlogs & SoundCloud
Interviews	2	2
Proposal	1	1
Annotated Bibliography	1	1
Essay (Draft and Final Version)	1	1
Oral Presentation (Draft and Final Version)	1	1

Project Assignments & Tools

	FALL 2013	SPRING 2014
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Tools	Wikispaces & SoundCloud	EdBlogs & SoundCloud
Interviews	2	2
Proposal	1	1
Annotated Bibliography	1	1
Essay (Draft and Final Version)	1	1
Oral Presentation (Draft and Final Version)	1	1

Selected Student Topics

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)
 - b) Feedback specificity (Narciss, 2008, pp. 135-136).
- 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

	Levels	Major questions		Three feedback questions
1	Task	How well has the task been performed; is it correct or incorrect?		Where am I going? What are my goals?
2	Process	What are the strategies needed to perform the task; are there alternative strategies that can be used?	Downtraison to no constitution of the constitu	How am I going? What progress is being made towards the goal?
3	Self- regulation	What is the conditional knowledge and understanding needed to know what you are doing? Self-monitoring, directing the processes and tasks	***	Where to next? What activities need to be undertaken next to make better progress?
4	Self	Personal evaluation and affect about the learning		

(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 your 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 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.

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