Teaching data literacy, advancing communicative justice with immigrant and refugee communities

Open Door Collective Webinar
October 27, 2023, 9:00am-10:00am PST
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About me

- Daughter of 1st generation immigrants from the Philippines
- Born and raised in Seaford, DE
- 30+ years in adult English language education
- Faculty (MA TESOL), San Francisco State University (established 1964)
  - Chair, English Department
Research Infrastructure in Minority Institutions (RIMI) Fellow, National Institute on Minority Health and Health Disparities, 2008-2013
- the adult literacy classroom as a safe space for gaining critical skills and practices for navigating our healthcare system
- participation in adult ELL $\gg$ health-protective factor
- talk and interaction $\gg$ critical resources for learning
- talk and interaction in the classroom $\approx$ doing healthcare
Chapter 3
Classrooms and “Real” Worlds: Boundaries, Roadblocks, and Connections

Leo van Lier, Monterey Institute of International Studies

Abstract

In this chapter, I examine the language classroom and its relations to the rest of the world. I take an ecological approach; that is, I focus on the relationships among the various places and situations that members of language classrooms find themselves in and how these relationships are affected by a variety of constraining and enabling factors. In particular, I look at three sets of issues, two of them (named boundaries and roadblocks) constraining and the third (named connections) enabling. The chapter discusses ways in which the various issues raised have been and can be researched and reviews key theories and approaches, including the tension between micro- and macroperspectives and emic and etic perspectives. Questions addressed include the following: How do classrooms turn out the way that they do, and in what ways are they shaped by society or by their inhabitants? What are the factors that promote or limit connections between social ecosystems such as the family, the peer group, and the social/institutional ecosystem of the classroom? The sketch provided here is a very partial one, but in the last part of the chapter, some suggestions are offered that can make the classroom into a learning space that may forge connections between learning and the rest of the students’ lives.
In ecological terms, the classroom can be seen as a niche. In nature, niches are parts of ecosystems that are particularly suited for particular organisms. There are two aspects to a niche: it has in and of itself properties that suit the organism and that provide affordances, but in addition, it is to a greater or lesser degree constructed by the organism, to make it even more suitable (enhancing existing affordances and creating new ones).

A niche offers important advantages to the organism: safety, shelter, rearing of offspring, proximity of food, and so on. It also introduces constraints: limitations on movement, flight, or foraging; the need to defend the niche to would-be intruders; and a disincentive to explore other (and possibly better) niches.

Going back to the classroom as ecological niche, the first thing to note is that it is preconstructed to a large degree. It is designed for its perceived and intended purpose. Students walk in for the first time and encounter walls, desks, and a certain arrangement of artifacts, barren or cluttered. These things are given in the same way that a certain cave is a given for a bear or an empty snail shell is an affordance for a growing hermit crab.

(van Lier, 2012, p. 33)
The other topic is the extent to which the classroom niche is a second-language-oriented safe haven, retreat, or temporary cage and to what extent it is a place from which to do two things: (1) venture forth and hunt for language stuff and (2) bring back language stuff to share, savor, and digest. The venturing forth and bringing back can be seen literally, virtually, or symbolically. That is, one can perfectly well stay in a seat and venture forth into imagined worlds and come back to share them with neighbors. Or one can stay in the seat and enter virtual social worlds, thus transforming the notion of niche into something completely new and not bounded by physical space.
Lávense las manos chicos, ya vienen!!!

CORONA VIRUS

No puedo lavarme las manos

LÁVATE LAS MANOS REX!!

NO PUEDO!! QUE ALGUIEN ME AYUDE!!
Task #1: How real are these creatures? Rank from MOST LIKELY to LEAST LIKELY. Talk to a neighbor. Compare your rankings. Same or different?
Task #2: In the next year, how likely are you to be affected by one of these conditions?
Who gets vaccinated?
What do the stars say?
## Salt Lake County COVID-19 Vaccination Rates by Zodiac Sign

<table>
<thead>
<tr>
<th>SIGN</th>
<th>% Fully Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEO</td>
<td>70%</td>
</tr>
<tr>
<td>AQUARIUS</td>
<td>67%</td>
</tr>
<tr>
<td>ARIES</td>
<td>59%</td>
</tr>
<tr>
<td>SAGITTARIUS</td>
<td>59%</td>
</tr>
<tr>
<td>CANCER</td>
<td>58%</td>
</tr>
<tr>
<td>TAURUS</td>
<td>56%</td>
</tr>
<tr>
<td>GEMINI</td>
<td>55%</td>
</tr>
<tr>
<td>LIBRA</td>
<td>54%</td>
</tr>
<tr>
<td>PISCES</td>
<td>51%</td>
</tr>
<tr>
<td>CAPRICORN</td>
<td>51%</td>
</tr>
<tr>
<td>VIRGO</td>
<td>50%</td>
</tr>
<tr>
<td>SCORPIO</td>
<td>46%</td>
</tr>
</tbody>
</table>

The COVID-19 vaccine is backed by science and is in no way influenced by horoscopes. But come on Scorpios!

Number of SLCo residents vaccinated, by date of birth. From USBS, "U.S. Population by Zodiac Sign."
What supports data literacy learning?

Opportunities...

• to **play with data** – hear, see, read, write, say, embody it, imagine, **problem-solve with others**

• to **see yourself in the data**

• to **practice ‘speaking data’** (D’Ignazio, 2017; D’Ignazio & Bhargava, 2016)
Changing the way we think about health data by changing the way we engage adult learners as

DATA CREATORS
DATA STORY-TELLERS
DATA VISUALIZERS
CJI Team

Margaret Handley, PhD
Co-Director, PRISE
UCSF

Jose Parra, BS
PRISE Center, UCSF

Maricel Santos, EdD
SFSU

Maria Bastias, MA
SFSU / Mujeres Unidas y Activas

Darren Chau, BS
UC Berkeley

Elaine Chang, MPH
UC Berkeley

Rebecca Kim, MA
SFSU

Yasmin Webster-Woog, MA
SFSU
Exploring new questions about health/communicative labor with learners and teachers (cf. Briggs, 2017; D'Ignazio & Klein, 2020; Handley, Santos, & McClelland, 2009)
Project Timeline: July 2022 - June 2023

Summer 2022
Technical Working Group (TWG)
(3 subject-matter experts)

Fall 2022
2 class cycles (15, 25 learners)
1 staff training (22 staff)

Winter 2023
CJI Study Circle (12 practitioners)

Fall 2023
CJI Toolkit launch (teacher-website)

Spring 2023
1 class cycle (18 learners)

The Innovating Digital Education in Adult Learning (IDEAL) Consortium
Coming soon www. communicativejustice.com

1. **Students and Teachers’ voices**
   - Study circle participants (different regions and contexts)
   - Students’ testimonies

1. **Publications**
   - *Working with Data in Adult English Classrooms: Lessons Learned about Communicative Justice during the COVID-19 Pandemic*
   - *Community engagement in the development of health-related data visualizations: a scoping review*

1. **Blogs, newspaper, and webinars**
   - *Advancing Data Literacy for Adult Learners and Democratizing Data* - World Education
   - *Targeting COVID-19 disparities in local ESL classrooms* | Epidemiology & Biostatistics
   - *Now the President and Frontline Workers Have Something in Common* - The New York Times
   - *Equity Data: Using Meaningful Data to Make Positive Changes in Our Communities*

1. **Data Visualization Tutorials:**
   - [https://www.datavistoolkit.com/](https://www.datavistoolkit.com/)

1. **Curriculum and classroom activities**
2. **Contact and partnerships opportunities**

FYI - our website not yet live but coming soon Fall 2023!
Understanding data

Curiosity and courage

Learning to ‘speak data’

Data-storytelling with a purpose

Playing with data

LEARNING DOMAINS
A CLOSER LOOK AT CJI LEARNING DOMAINS

1. **UNDERSTAND DATA** - ask essential questions – what’s data? who works with data? does data improve our lives?

2. **SPEAK DATA** - learning and using language to talk about data, puzzle through our interpretations

3. **PLAY WITH DATA** - hear, see, read, write, speak, imagine, collect, and interpret data while problem-solving with others

4. **STORY-TELL WITH DATA** - see ourselves in data and tell stories with a purpose, through a purpose-driven discovery process that shows the power and limitations of data

5. **CULTIVATE COURAGE AND CURIOSITY** - leaning into the possibility that learners have power as data story-tellers in their own right
Next steps: Networking, capacity-building, pushing back

1. Champion data literacy policies that support access to education and tools

2. Change the narratives about “low data literacy”
   - Data literacies not data literacy (Fotopoulou, 2021)
   - Emphasis on engagement process (LEARNING), not merely tool proliferation
   - Celebrate the foragers
   - Call out the barriers that impeded foraging

3. Interdisciplinary networking: data science, health equity, adult education - Roundtables? Who’s attending whose conferences? Collaborative grant-writing?
RECAP What supports communicative justice?

Empowered opportunities (spaces, tools, networks) for learners to...

- **play with data** – hear, see, read, write, say, embody it, imagine, **problem-solve with others**
  - data story-telling as a collective act
- **practice ‘speaking data’** [(Data Basic video)]
- see yourself in the data
Selected references


