Mohawk, marked difference between immersion school students and mainstream school students. Calm vs. noisy. Respect vs. disrespect. Mohawk requires the speaker to relate to other. Behavior problem student never disrupted in immersion school. Psychological effects of language. No competitiveness. Non-native child in Mohawk school living with grandparents has also calmed and quieted in behavior and demeanor after schooling with the community (Dr. Maracle’s anecdote).

Puunana Leo students in Hilo seem mature.

Language and culture programs create affiliations/bonds that serve to strengthen communal ties and provide support structures. What is the primary causal factor: language or social ties through common experience?

Important difference in educational patterns between language nests/community-driven teaching versus traditional Western education.

Element of choice and commitment is important in determining/aiding success in health and wellness programs. Developing a lifestyle also crucial in success.

Difficultly of bridging the gap between anecdotal evidence and quantitative evidence. Correlation is not causation. Isolating factors is difficult.

[www.naho.ca/jah/english/jah05_01/V5_I1_Protective_01.pdf](http://www.naho.ca/jah/english/jah05_01/V5_I1_Protective_01.pdf)

McIvor, Onowa. 2013. Protective effects of Language Learning, Use and Culture on the Health and Well-being of Indigenous People in Canada. *Endangered Languages Beyond Boundaries: Proceedings of the 17th FEL Conference.* (This is the article Alice read from on 6/17/14.)

Testing proficiency very problematic and hotly debated. Need a good testing tool for indigenous languages.

Two parts of prospective studies: 1) language factors/level of language (self reported?): measurable language factor is conversational ability; 2) health factors that are going to be measured (e.g. suicide rates, behavioral problems, maturity, performance in long run (in all realms)).

Group discussions on 1. and 2. above: REPORTS ON WEDNESDAY.
I haven’t yet read either of these but below are 2 references from Nick Thieberger:


6/18/14
Group reports from yesterday.
Show video and consider measuring how not using the language affects health.
Consider day 1 Peile quote.
We don’t need to measure proficiency to measure language use.
Begin to design a real project for a real community. (1 or more projects.)

Group reports:

1) Wellness/health group:
   a. Problem of defining “wellness”
   b. Possible conflict between community view of wellness/health and Western notions
      i. Could project measure health/wellness on both continua?
      ii. Two conceptions need not necessarily intersect
   c. Psychological evaluations
   d. Look at intercommunity relations, particularly elder-youth relations
      i. Look at different age groups, demographic groups
   e. How exactly to measure health/wellness factors/indicators? (how to quantify)
i. Consider both individual measures and indicators for whole community (compare the two)

2) Language side:
   a. Difficulty of measuring fluency/proficiency
   b. Look at difference between mainstream and community (i.e. immersion) schools/classrooms
      i. Are children in community schooling impacted differently from those in mainstream education?
         1. Different measures/categories in community education versus Western/mainstream education
         2. Could look at time spent in immersion environment and differential impacts (time spent = measureable factor)
            a. Plot time against expected and actual outcomes
      c. Sapir-Whorf hypothesis: linguistic relativity: language shapes/impacts thought
         i. Applications to language & wellness questions?
         ii. Related to psychological wellbeing issues
         iii. Inter-relations between social/societal/cultural trauma and personal pain/psychological impacts vis-à-vis language use, wellbeing.
   d. Develop equivalent of TOFL for indigenous languages?
      i. Involves thorny political issues
      ii. Practical difficulty of deciding standards
      iii. Often (always?) needs to be community-specific
         1. Therefore, difficult to compare between communities
         4. Complex linguistic ecologies and problem of enumeration of varieties
            1. Would require proliferation of standard tests?
            2. How to start?
            3. When and where to stop?
e. Self-reporting of linguistic competency problematic
   i. Negative language attitudes can obscure actual proficiency
      1. i.e. Ghost-speakers (speakers who deny knowledge of language due to negative language attitudes and/or unfavorable environmental factors)
   ii. Significant element of fear and personal trauma involved in consideration of native language competency/use
   iii. Need to tease apart different groups within community:
      1. Typology of speakers/semi-speakers, etc.
         a. Those who survived residential schools versus those who never had such experiences, etc.

3) Focus on specific communities in order to control and narrow scope of methodological difficulties/issues:
   a. Toni’s community situation:
      i. Look at population of understanders (passive/receptive language competency)
      ii. Get collection of all old recordings of data/language that exist for community (language activity)
      iii. Determine health indicators and how to collect data on them.
      iv. Gather speakers a certain number of times per week for a certain amount of time, have them listen to recordings, and discuss (perform language activity)
         1. Limit consideration to time they spend exposed to language
      v. Measure health indicators at x, y, z points and see what turns up (measurement)

b. Project template (Alice invented this example based on our discussion today.)
   i. Determine Population. For instance: Mohawk 5th graders.
ii. Specify **Language activity and measurements** For instance: Mohawk children go to Kanien’kéha’ (? Mohawk) language school through 5th grade. vs. Mowhawk children go to English language school through 5th grade.

iii. Specify **Health indicators and how to obtain measurements**. For instance: The health indicator will be the number of student absences from school due to illness per month converted to % of students. Indicator obtained from schools in the aggregate.

iv. Specify **project roles / principal individuals to be involved**. For instance: Principal Investigator (Name) will collect data from schools each month, analyze data, write and publish a paper describing the project and its results. School authority will give permission to release aggregate absentee numbers. Statistician will analyze the numerical data to contribute to the PI for reporting.

v. Specify **timeframe for the project**. For instance: September 2014-August 2015. One school year and the summer.

vi. Determine **budget**. For instance: One month salary for the PI to collect data throughout the year, analyze the data, write and submit the paper for publication.

1. Need to consider as part of budgetary concerns hiring a statistical consultant to “massage” the limited data.

2. Schools are usually paid for helping obtain data in such studies, even in cases where they are directly benefiting from free programming that would otherwise cost thousands.

   a. This payment is made because something out of the ordinary course of school activity
is being requested from school officials by researchers/study.

b. This is essentially an admin fee.

c. Some school districts require data processing fees (Christina mentioned this is the case in Houston, TX, where she works).
   i. All districts are different though
   ii. All districts have certain protocols for how the handle their data.
   iii. Perhaps we could include $500 in this practice project to handle these admin/data processing/application fees.

3. $500 for data processing by school

4. $1800-$9000 for PI (one month’s salary)
   a. This salary might be multiplied by 1.5 if submitting this for a real grant for “indirect costs”
   b. Sometimes funding agencies will have a total budgetary threshold for indirect costs to be assessed/considered.

c. In looking at project/study design:
   i. Control for demographic factors by matching individuals in groups according to single factors or groups of factors.
   ii. Control for intervention (exposure to language activity)
      1. i.e. group people according to prior exposure to language.
      2. Expose groups to language activity differentially.
   iii. Methodological consideration:
      1. Language learning and wellness issues take time to develop
      2. Requires longitudinal approach
3. Longitudinal studies are difficult to manage through
time and can be expensive

iv. Consideration of project design for the course:
   1. Be as real as possible about the situation
   2. If no real situation is available to you, consider
      hypothetical situation
   3. Can use Bonnie Jane Maracle’s situation as test
      case for course
      a. 7 communities in nation, some in Canada,
         some in US, each with fluent speakers.
      b. Elder fluent speakers travel between
         communities, exposing non-speaker
         community members to language
      c. Possibility of bringing elder speakers
         together as focus group to discuss with each
         other in Mohawk language and wellness
         issues and interconnections in their
         respective communities.
         i. Organize such focus groups on
            community-by-community basis and
            record these conversations, while
            keeping them private (i.e. not open to
            rest of community)
            1. Use as baseline
      d. Bonnie’s community has a language center
         with language nest, adult immersion, and
         elementary school programs.
         i. Language center also does cultural
            activities.
         ii. Last fall, brought in elders to record
             and create documentation

From Mike Young’s email: (Thanks, Mike!)
Here is a link to the Behavioral Risk Factor Surveillance System. Some of these items may serve well for health indicators and would provide opportunities to compare with national data

http://www.cdc.gov/brfss/

The YRBS is for junior high and high school students. Here’s a link to the 2013 questionnaire -


Steve’s bibliography on Zotero: (Thanks, Steve!)

StephenSelf has invited you to join the group Language & Wellness CoLang 2014 at Zotero.org

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Hi gang, Here is the Zotero group library for Language & Wellness at CoLang 2014.
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You can find more information about this group and accept or decline the invitation at

https://www.zotero.org/groups/language__wellness_colang_2014?token=3f1a250e734991e084b29a3a1c107d74

6/19/14
Steve is able to attend and take notes Thursday, yay!

Find weaknesses in Alice’s project in the bolded template above. [Which morphs into Bonnie’s project.]

Fill out the project template for Bonnie’s project.

Monica’s question: Why is learning cultural values through the community language more valuable than learning them through a colonial language (e.g. French, Spanish, etc.)?

Bonnie’s response: Mohawk contains perspectives/information/foci that English lacks and that are untranslatable, or translatable only with great difficulty and significant loss of information/detail/nuance. E.g. The idea of ‘chair’. There is a term in Mohawk that is used to express the English noun chair, but the term actually refers to the folding of the body in order to sit in a chair and thus refers properly not to the physical object but to the posture assumed while using a chair. [Is this an action or a posture? – Alice]

Patrick’s contribution from a translation background: Translations inevitably end up being longer and more circumlocutionary than originals, as a result
of having to unpack the dense semantic associations in the original in a target language that lacks them.

Brent’s analogy: difference between reading a recipe and attending a cooking class (with all of the attendant sights, smells, tactile experiences, etc.).

Possible problems with Alice’s bolded project [now Bonnie’s project] template from above:

1. Using absenteeism is problematic because some go to school even when sick and some stay home even when well.
2. Perhaps use ethnographic interviews to get all stakeholders’ perspectives on absenteeism.
3. Using absenteeism statistics, though, is easy from the standpoint of obtaining data: limited-to-no permissions are necessary to obtain these statistics.
   a. Christina noted, though, that her school district (Houston area) and institution (Rice) would require IRB and permissions to obtain these data.
      i. Especially true if school records are being looked at.
      ii. Looking at reason for absence recorded by school in records?
         1. Documentation provided by students’ families to school justifying absences.
      iii. Using de-identified data (i.e. without students’ names) opens the way a bit more.
   b. But a sympathetic IRB could be persuaded.
   c. IRB concerns are not mitigated in Christina’s case by involving community directly in requesting that data be shared.
   d. Also need parental permissions?
4. It would be a first step toward quantifying the connection between health and language.
5. Michael’s comment: Important to achieve statistical significance by involving multiple communities and higher numbers of student participants in the study (a bigger n).
   a. For a given effect level, the more participants, the greater the likelihood that the effect is not due to chance, but is statistically significant (i.e. a real difference).
   b. Having data for more years over more schools provides a better view of patterns that allow researcher to filter for significant and insignificant effects.
6. Another possible problem with absenteeism: local epidemic could skew results?
   a. Alice commented that this might prove felicitous, however, because it would allow for an environment in which to test prediction that immersion students have more immunity/better health/etc.
7. Michael commented that we need to tease apart language exposure as producing health effects and provision of better healthcare as a result of the fact that the care is being provided all in the vernacular language.
a. Random assignment to control groups can help in this regard.
b. Three groups:
   i. Language immersion
   ii. No immersion
   iii. Exposure to culture without immersion
c. Question of whether families that commit to immersion simply care more and that higher degree of caring is responsible for the health effects
   i. Possibility of self-selection bias in data

Possible funding sources for Bonnie’s project:
1. ELF (Endangered Languages Fund)
2. NSF (DEL): Shobana Chelliah
3. Possibly pair with researcher with research funding who, if a publication will be forthcoming, can pony up cash
4. Crowd-funding (TheLanguageDocumentationCrowd, Gofundme.com, etc.)
   a. Kickstarter cannot be used unless a physical product is made for profit
5. KIVA?

Personnel: Who else besides Bonnie needed for project design?
1. School principals
   a. Need to convince them for buy-in to get the absentee numbers/data.
      i. They will get a copy of report that can be used for obtaining school funding, etc.
2. Statistician
   a. Need multiple meetings with him/her
3. Likely no need for outside academic (Bonnie can fulfill this role)
   a. Though perhaps personal academic connections can be used to have another pair of eyes on final report before submission

Publishing: What journal would be appropriate for final publication? Does Bonnie know the editor?
1. Michael has submitted an abstract to journal editors ahead of time for a casual perusal to see if the editors would be interested, are issues of the project design problematic to the point of harming the study’s chances of getting published (does it look clear enough of critical flaws?).

A citation from Larry Kaplan. Thanks, Larry.:
• Schweitzer, P, S. Irlbacher Fox, Y. Csonka and L. Kaplan. 2010.
usual name quiz and optional greeting in your language.

Write an abstract for Bonnie’s project. As they arise, make notes on the following:

- List funding sources for projects correlating Language with health outcomes.
- List journals appropriate for reporting research that correlates Language with health outcomes.
- List health outcomes terms to use in Language-Health talk and writing.
- Briefly discuss "significant correlation", a statistics thing. That is "possible causation", vs. "correlation".
- Note “future research” ideas derived from Bonnie’s project that she can mention in her report.

Purpose of Study:

“The purpose of this study is to compare rates of absenteeism in two types of day schools within Kanien’ke:haka (the Mohawk Nation), one of which uses Kanien’ke:ha (Mohawk: ISO 639-2 moh) as the language of instruction K-4 and the other of which uses English as the language of instruction K-4.”

Background/Rationale:

Using absenteeism as an indicator of health

There is increased interest in the revitalization of ancestral languages, and either there is some evidence that this type of activity can lead to improvement in health outcomes or there is not. In this study, we used/will use absenteeism as a proxy health indicator.

Previous work has suggested a connection between speaking a Native America/First Nations heritage language and a variety of health indicators, such as suicide rates (CITATION Aboriginal language knowledge and youth suicide. Darcy Hallett, 6, Michael J. Chandler, 1, Christopher E. Lalonde, 2).

Anecdotal evidence suggests a positive correlation between wellness and use of heritage language.

Kanien’ke:haka (the Mohawk nation) circles Lake Ontario in areas that are now Canada and the United States. The current nation membership is approximately 35,000. There are 3,500 people for whom Kanien’ke:ha is their first language. There are 300-400 conversationally fluent new speakers in the communities included in this study.

Methodology:

“We will obtain attendance records from the schools in four Mohawk communities where both types of schools exist. All the students in these schools are members of the Mohawk nation. Data will be analyzed using a 2 (school type) x 2 (attendance rates) chi square to determine if attendance rates are independent of school type.”

Implications:
When you look at numerous health indicators of Native American/First Nations people, they are very bad [name specific indicators and data with citations]. If you can show through studies like this links between use of heritage language and specific health indicators, then you can provide a quantitative basis for public policy. Evidence of an influence of language immersion schools on general health indicators suggests that further study of the mechanisms through which the benefits were manifested is merited.

Alice added the below because we didn’t get to these things during our amazing, fantastic class.

**Personnel:**
Principal Investigator (Name) will collect data from schools each month, analyze data, write and publish a paper describing the project and its results. School authority will give permission to release aggregate absentee numbers. Statistician will analyze the numerical data to contribute to the PI for reporting.

**Timeframe:**
September 2014-August 2015. One school year and the summer.

**Budget:**
$5000 salary for the PI to oversee the project and interface with the schools and community, collect data from the schools. Hire and collect the analysis from the statistician. Write and submit a paper for publication. $1000 salary for statistician to analyze the data. $2000 honorarium to pay each of the 8 project schools $250 for providing data. **Total = $8000**

Thank you EVERYONE for contributing to the conversation. I’d say more but Steve is here at KC to take me to the airport.

xxxxxAlice