Technology and Training

Tools and Resources for Language Documentation and Revitalization
Geek out!

Tübatulabal the name of the tribe
Pakanapüül the name of the people, in Paka’anil
Paka’anil the name of the language
paka’anat he/she speaks Paka’anil (paka’an ‘speak P.’ -at ‘present tense’)
paka’an-apüül speak Paka’anil -V>N.agent
paka’anapüül ‘one who speaks the paka’anil language’
Neshnabémwen  gdenwémagnanek

- gde-       nwémagen  -enan   -ek
- including you  relative  our  plural

- nwé        -ma   -gen
- sound a certain way  VTA  V>N
	nwéwen  ‘language’

‘the people who sound like us’  ‘the people who share our language’
Language Documentation
The Boasian Trilogy

- Descriptive Grammar
- Dictionary
- Text Collection
3. Identical-actor Subordinating Suffixes, -(a)c, -(i)ya'awac, and -(a)kca

i. -(a)c. -(a)- vowel increment, resists lengthening (cf. §3, 1 and 2). -c suffix proper.

A subordinate verb, formed by the suffix, -(a)c, is used in two different senses which are not always clearly distinguished. In the first sense, the subordinate verb is an infinitive, and this sense is always used after the main verb, to know, and sometimes after other main verbs.

\[ \text{ma'aga't ala'awa'c} \hspace{1cm} \text{he knows how to talk.} \]
\[ \text{ma'aga't a'da']a'c} \hspace{1cm} \text{he knows how to kick.} \]
\[ \text{ma'aga't pa'i'id']i'c} \hspace{1cm} \text{he knows how to swim.} \]
\[ \text{wela'hana'c wah ta'twa'l hali't} \hspace{1cm} \text{to fish there the man is sitting.} \]  
(“The man is sitting there in order to fish.”)

In the second sense, the action of the subordinate verb gives much the same feeling as an English “when . . .” clause.

\[ \text{ta'wi'ig'i'ila'c} \hspace{1cm} \text{hani'la' uyu'k} \hspace{1cm} \text{when he went to see the house, he fell down.} \]
\[ \text{a'dza'ya'awa't a'aci'c} \hspace{1cm} \text{he yells when he is bathing.} \]
0. Acknowledgments

1. Vocabulary

0. Stimulated by the resurgence of work in the California Indian Language Survey, I offer herewith the corpus which served in field work as a "working vocabulary" for purposes of eliciting in morphology-syntactic (Other lexical items may be abstracted from the published texts).\(^1\)

I am glad to acknowledge that Elsie F. Dosch accomplished the delicate task of converting the old style orthography used in the published grammar\(^2\) and texts into the currently fashionable orthography with no more direction than a list of orthographic equations: let \(ts = c\); \(dz = z\); \(dz = z\); \(tc, tf = c; c, f = s\). The equations for vowels involved not only switching in orthography but grouping of allophones (except /a/ which remains /a/): let \(i, i = i; i, a, e = i; u, o = u; e, e, æ = e; o, æ = o; a = a\).

After the typing, most of the work of checking the typescript against the lexical card manuscript was borne by Glen D. Turner with whom it was a pleasure to discuss a small alteration made in phonemic specification having to do with subphonemic devoicing of continuants. In the new speci-

I am glad to say that Kenneth Hale’s feeling for writing /ə/ before initial vowels (influenced perhaps by his work in Papago) agrees with my own (influenced no doubt by my recent work in Hopi).

1. The ‘working vocabulary’ which now follows is alphabetized in the English order, with non-English letters following after the nearest English one (as /θ/ after /c/, and /i/ after /i/). For purposes of alphabetization the glottal stop is disregarded in the word-initial sequence /\^v\^-\).

?a

?a'nin-t yellow ants; ?a'wa-t the horn (of any animal); ?a'ba?iw(-it) ~ ?a'?a'?i?w it is showing; ?a'?awina-l the devil, ?a'?awina-n his soul, ghost; ?a'awa-y(ity) ~ ?a'awa?i
to drill fire; ?a'azayibi? the bluejay; ?a'
?gowan-l ~ ?a'?gowan-l the shaman ( ~ plural); ?agi who; ?aha'i? ~ ha'i? to chew it; ?aha'm ~ ?a'?aha'm to put it away; ?a'hy-
~ ?a'yh to quit, to let it go; ?a'i Oh!; ?a'k-
~ ?a'?a'k to open one's mouth; ?akapi? the crow; ?akaqi?p across; ?a'ay ~ ?a'yi? to pick it from the ground; ?ala?u? hurry up; ?ala~ ~ ?a'?ala? to lubricate with spit; ?alalalibi? thin; ?ala'w~ ~ ?a'?ala'u to talk; ?alhan-(t) the jaw bone; ?a'li-t the bow;
12. HOW THE EARTH WAS MADE

1. ta'ŋaŋkte tei'tewa'na'a'e. 2. peč pa'lımbüm i' cuwa'la. 3. peča' piniyu sawa'at muwalamiki'k. 4. akataxwa'gilutksic iet. 5. pečita muwa'liŋ µkuba'ñ ñbùli'ila. 6. me'eda'gtect tücwahat ha'yiha'ınt tüikin. 7. pečiktect ümbiñ oba'malu'ts amañatal ògon wah cuwa'la a'aba'i'iwunica agi'ògon wah cuwa'la a'aba'i'iwunica.

8. peč waha'ida' ð'opr kugite ŭmbómbit hal̄ut iki'k. 9. peč ha'yiha'intendent knup.103 10. akataxwa'gilut'wes edu kî'kite iet. 11. weteu 'ümbe kikidža ŭmbó'mbita'. 12. peč ḩ'ompómbit ð'opr pečikte i'ul' ŭmbómbit upcekn. 13. iģept'îkite yîwî'gimat ŭmbómbit. 14. pectagite piniyu a'dawi'k. 15. pečiktect ümbi ümbi tei'džami kî'kitect tu'ecigitect ŭmbügi'hwit.

12. HOW THE EARTH WAS MADE

1. It is raining all the time. 2. Then the water filled this earth. 3. Then everyone, they ran away toward the mountain. 4. “We get slaughtered,” says Coyote. 5. Then they went and arrived on top of the mountain. 6. Coyote is ready to die; his food (is) nothing. 7. Coyote then said, “Let someone dive there; he will make earth appear; who will make earth appear there?”

8. Then from there they dived, but Mud-Diver is sitting to one side. 9. Then they have brought up nothing. 10. “So we get slaughtered,” says Coyote. 11. “You (are) next,” (Coyote) says to Mud-Diver. 12. Then Mud-Diver dived and, after a while, Mud-Diver came out from there to here. 13. Mud-Diver is coming and holding very little (earth). 14. Then everyone saw it. 15. Then Coyote says, “Again, once again.” Coyote is in a hurry.
Himmelmann: A Modern Approach

“A language documentation is a lasting, multipurpose record of a language.” (Himmelmann 2006, 1) ... “A large corpus of annotated primary data” (ibid., 20)

“As laid out in Himmelmann (1998), language documentations include as their central components a collection of spoken texts from a variety of genres, recorded on video and/or audio, with time-aligned annotations consisting of transcription, translation, and also, for some data, morphological segmentation and glossing. Text collections are often complemented by elicited data, e.g. word lists, and structural descriptions such as a grammar sketch. All data are provided with metadata which serve as cataloguing devices for their accessibility in online archives.” (Seifart 2012, 1)
Components of a Language Documentation

- collection of spoken texts
- variety of genres
- recorded on video and/or audio
- time-aligned annotations
  - transcription / translation (all)
  - morphological segmentation / glossing (some)
- metadata
- complemented by elicited data
  - word lists
  - grammar sketch
  - ethnographic information
- archives
<table>
<thead>
<tr>
<th>Primary data</th>
<th>Apparatus</th>
</tr>
</thead>
<tbody>
<tr>
<td>recordings/records of observable linguistic</td>
<td>Per session</td>
</tr>
<tr>
<td>behavior and metalinguistic knowledge</td>
<td>For documentation as a whole</td>
</tr>
<tr>
<td></td>
<td>Metadata</td>
</tr>
<tr>
<td></td>
<td>General access resources</td>
</tr>
<tr>
<td>Metadata</td>
<td>introduction</td>
</tr>
<tr>
<td>Annotations</td>
<td>orthographical conventions</td>
</tr>
<tr>
<td>– transcription</td>
<td>glossing conventions</td>
</tr>
<tr>
<td>– translation</td>
<td>indices</td>
</tr>
<tr>
<td>– further linguistic and ethnographic glossing</td>
<td>links to other resources</td>
</tr>
<tr>
<td>and commentary</td>
<td>...</td>
</tr>
<tr>
<td></td>
<td>Descriptive analysis</td>
</tr>
<tr>
<td></td>
<td>ethnography</td>
</tr>
<tr>
<td></td>
<td>descriptive grammar</td>
</tr>
<tr>
<td></td>
<td>dictionary</td>
</tr>
</tbody>
</table>
Creating a “large corpus of annotated primary data”

1. Make an archiving plan
2. Record (audio and video) speakers speaking
3. Transcribe and translate the recordings (ELAN)
4. Analyze the transcripts and create a lexical database (FLEX)
5. Archive recordings and annotations / Make available to language community
What this can look/sound like

Recording:

2014-10-29V1AA.mp4
Metadata:

### Main:
- **Episode Label**: 2014-10-29-01
- **Nickname**: Jim's school narrative
- **Discourse Type**: narrative
- **Duration**: 0:13:26
- **Transcription Reviewed**: true
- **Translation Reviewed**: true
- **Access Groups**: Public
- **Fieldwork Session**: 2014-10-29, Forest County Potawatomi Cultural Center, Library and Museum

### People:
1. **Name**: Jim Thunder  
   **Role**: speaker
2. **Name**: Lillian Rice  
   **Role**: speaker
3. **Name**: Lindsay Marean  
   **Role**: recorder, transcriber, translator
4. **Name**: Thomas Loftis  
   **Role**: transcriber, translator

### Files:
1. **File Location**: 2014-10-29-01.wav  
   - **General Type**: audio  
   - **Mime Type**: audio/x-wav  
   - **Source Reference**: 2014-10-29A1AA.wav
2. **File Location**: 2014-10-29-01.mov  
   - **General Type**: video  
   - **Mime Type**: video/quicktime  
   - **Source Reference**: 2014-10-29V1AA.mp4
3. **File Location**: 2014-10-29-01.eaf  
   - **General Type**: text  
   - **Mime Type**: text/xml  
   - **Source Reference**:

### Notes:
- **Subject**: review files
- **Note**: Transcript/translation are reviewed
Analysis (FLEx)
Presentation (CuPED), language portal (http://pmportal.org/splash)

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Passamaquoddy-Maliseet</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00</td>
<td>No. Nokatomon 'samaqan.</td>
<td>No. She's afraid of the water.</td>
</tr>
<tr>
<td>00:03</td>
<td>Iya.</td>
<td>Yes.</td>
</tr>
<tr>
<td>00:04</td>
<td>Knokatomon kcuwhpahkan?</td>
<td>Are you afraid to throw her into the water?</td>
</tr>
</tbody>
</table>
Where Can People Learn To Do This?

- CoLang (Institute on Collaborative Language Research)
  - Co-sponsored by the LSA in even-numbered years
  - Will be at the University of Florida in 2018 (http://colang.lin.ufl.edu/)
- LSA (Linguistic Institute)
  - Presented by the LSA in odd-numbered years
  - Will be at the University of Kentucky in 2017 (https://lsa2017.uky.edu/)
- AILDI (American Indian Language Development Institute)
  - Put on by the University of Arizona each year (http://aildi.arizona.edu/)
- NILI (Northwest Indian Language Institute)
  - Put on by the University of Oregon each year (http://pages.uoregon.edu/nwili/)
- Breath of Life
  - Put on by the Advocates for Indigenous California Language Survival (AICLS) (http://aicls.org/breath-of-life/)
  - Held in even years at Berkeley; held in odd years in Washington, DC; also at the University of Oklahoma
- ILAT (Indigenous Languages and Technology)
  - Listserv moderated by Phil Cash-Cash (http://www.u.arizona.edu/~cashcash/ILAT.html)
## Where Can People Get These Applications?

<table>
<thead>
<tr>
<th>Application</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAN</td>
<td><a href="https://tla.mpi.nl/tools/tla-tools/elan/">https://tla.mpi.nl/tools/tla-tools/elan/</a></td>
</tr>
<tr>
<td>FLEX</td>
<td><a href="http://fieldworks.sil.org/flex/">http://fieldworks.sil.org/flex/</a></td>
</tr>
</tbody>
</table>
Language Revitalization
Reversing Language Shift

Joshua Fishman’s (1991) Graded Intergenerational Disruption Scale

- What is the current status of the language?
- What can be done to improve its status?
<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Actions to be taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>So few fluent speakers that community needs to re-establish language norms; often requires outside experts (e.g., linguists).</td>
<td>document for future reconstruction, work on adult acquisition</td>
</tr>
<tr>
<td>7</td>
<td>Older generation uses language enthusiastically, but children are not learning it.</td>
<td>facilitate the creation of highly proficient second language speakers, mobilize community, involve people who can still have kids</td>
</tr>
</tbody>
</table>

**Intergenerational transmission (children acquire the language in their homes)** no ↑ yes ↓

**Most important (this is the highest stable stage)**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Actions to be taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Language and identity socialization of children takes place in home and community.</td>
<td>facilitate socialization of children and teenagers in the language so they will speak it to their own children, support families in intergenerational continuity, and families within the community, re-define home to include multiple generations and other caregivers (language nest)</td>
</tr>
<tr>
<td>5</td>
<td>Language socialization involves extensive literacy, usually including non-formal L1 schooling.</td>
<td>community does everything, accept a diglossic situation</td>
</tr>
<tr>
<td>4</td>
<td>L1 used in children’s formal education in conjunction with national or official language.</td>
<td>corpus planning, publish things in the language, create K-8 Early Total Immersion school</td>
</tr>
<tr>
<td>3</td>
<td>L1 used in workplaces of larger society, beyond normal L1 boundaries.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Lower governmental services and local mass media are open to L1.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>L1 used at upper governmental level, universities; official recognition.</td>
<td></td>
</tr>
</tbody>
</table>
Adult Acquisition

Master Apprentice Program

- Pioneered by the Advocates for California Indigenous Language Survival (AICLS) (http://aicls.org/master-apprentice-program-map/)

Adult Immersion

- Nishnaabemwin Pane program at Bay Mills Community College
- Immersion camp experiences

College and Community Language Classes
Immersion Schools

The Esther Martinez Immersion Program of the Administration for Native Americans (https://www.acf.hhs.gov/ana/resource/native-languages-immersion-esther-martinez-initiative) is a source of funding.

A major hurdle to creating an immersion program is a shortage of credentialed teachers (both ECE and K-12) who are proficient speakers.
Where Can People Learn More?

AICLS, AILDI, NILI, CoLang, SILS, ILI, visits to existing immersion programs

Not just indigenous languages

- New Mexico Association for Bilingual Education (NMABE) ([http://nmabe.net/](http://nmabe.net/)) - and other state organizations
- American Council on the Teaching of Foreign Languages (ACTFL) ([https://www.actfl.org/](https://www.actfl.org/)) - and other foreign language resources
  - NCSSFL-ACTFL Can-Do Statements (ACTFL 2015)
NOVICE HIGH

I can communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language. I can usually handle short social interactions in everyday situations by asking and answering simple questions.

I can exchange some personal information.

☐ I can ask and say a home address and e-mail address.
☐ I can ask and say someone's nationality.
☐ I can ask and talk about family members and their characteristics.
☐ I can ask and talk about friends, classmates, teachers, or co-workers.
☐ I can ____________________

I can exchange information using texts, graphs, or pictures.

☐ I can ask about and identify familiar things in a picture from a story.
☐ I can ask about and identify important information about the weather using a map.
☐ I can ask and respond to simple questions about dates, times, places, and events on schedules, posters, or ____________________

I can ask for and give simple directions.

☐ I can ask for directions to a place.
☐ I can tell someone how to get from one place to another, such as go straight, turn left, or turn right.
☐ I can tell someone where something is located, such as next to, across from, or in the middle of.
☐ I can ____________________

I can make plans with others.

☐ I can accept or reject an invitation to do something or go somewhere.
☐ I can invite and make plans with someone to do something or go somewhere.
☐ I can exchange information about where to go, such as to the store, the movie theatre, a concert, a restaurant, the lab, or when to meet.
☐ I can ____________________
Language Revitalization as a Field of Study
The Field of Language Revitalization Has...

Its own conferences

- Stabilizing Indigenous Languages Symposium (SILS) (https://www.eventbrite.com/e/24th-annual-stabilizing-indigenous-languages-symposium-tickets-28771197426)
- Language Documentation & Conservation (LD&C) (http://icldc5.icldc-hawaii.org/)
- Local to Global Perspectives on Language Revitalization and Documentation (NILI 20th anniversary) (http://pages.uoregon.edu/nwili/conference_2017)
- First International Conference on Revitalization of Indigenous and Minoritized Languages (https://icriml.indiana.edu/)
Its own journal

Language Documentation & Conservation (http://nflrc.hawaii.edu/ldc/)
### Other publications (books, articles)

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publisher</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pérez Báez, Gabriela (Editor) Rogers, Chris L. (Editor) Rosés Labrada, Jorge Emilio (Editor)</td>
<td>Language Documentation and Revitalization in Latin American Contexts</td>
<td>De Gruyter Mouton</td>
<td>2016</td>
</tr>
<tr>
<td>Comrie, Bernard (Editor) Golluscio, Lucía (Editor)</td>
<td>Language Contact and Documentation [Contacto lingüístico y documentación]</td>
<td>De Gruyter Mouton</td>
<td>2015</td>
</tr>
<tr>
<td>Essegbey, James (Editor) Henderson, Brent Mykel (Editor) Mc Laughlin, Fiona (Editor)</td>
<td>Language Documentation and Endangerment in Africa</td>
<td>John Benjamins</td>
<td>2015</td>
</tr>
<tr>
<td>Seifart, Frank Christian (Editor) Haig, Geoffrey (Editor) Himmelmann, Nikolaus P. (Editor) Jung, Dagmar (Editor)</td>
<td>Potentials of Language Documentation Methods, Analyses, and Utilization</td>
<td>University of Hawai‘i Press</td>
<td>2012</td>
</tr>
<tr>
<td>Grenoble, Lenore A. (Editor) Furbee, N. Louanna (Editor)</td>
<td>Language Documentation Practice and values</td>
<td>John Benjamins</td>
<td>2010</td>
</tr>
</tbody>
</table>
Its own funding

- Documenting Endangered Languages (https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12816)
- Endangered Language Fund (http://www.endangeredlanguagefund.org/)
- Administration for Native Americans (https://www.acf.hhs.gov/ana/programs/native-language-preservation-maintenance)
- Foundation for Endangered Languages (http://www.ogmios.org/index.php)
Programs to Consider

Credentialing programs (ECE, K-12, indigenous language teaching specialization)

Language documentation track

LINGUISTICS!


Contact information

Lindsay Marean

Imarean@bensay.org