

A dramatic landscape photograph of a sunset or sunrise over a body of water. The sun is low on the horizon, partially obscured by dark, heavy clouds, creating a bright glow and long, dark shadows across the water and the rocky shore in the foreground. The sky is filled with textured, dark clouds, and the water reflects the light from the sun.

Agility for language documentation and revitalization: A case study

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Washington University in St. Louis

March 1, 2024



Igamsiqayugvikamsi tagikamsi quyakamsillu esghaqemsi!

Thank you for coming, it's good to see you!

Igamsiqanaghalek

How grateful I am

I live and work as a grateful guest on the lands of the Rappahannock, Pamunkey, Upper Mattaponi, Chickahominy, Eastern Chickahominy, Nansemond, Monacan, Mattaponi, Patawomeck, Nottaway, and Piscataway tribes.

Today I am grateful to be here on the land of the Osage Nation, Missouri, Illinois Confederacy, Miami, and other tribes.

Igamsiqayugvikamsi, Sivugaghmiit. Thank you to the people of Sivugaq/St. Lawrence Island.



Aghneghmi

(today)

- Who am I/who are we?
- “Agile” community-centered language work
- The Akuzipik project(s)
 - With a...*timely* example



Kinanguzinga? Who am I?



- IA, MN, AZ, MA, IL, VA
- Daughter, sister, mother
- Language documentation and reclamation/revitalization
- Research in formal syntax, morphology, semantics (Ancient Greek, Cherokee, Turkish, Scottish Gaelic, Akuzipik, Hawrami Kurdish)
- Work with speakers of Akuzipik, Scottish Gaelic, Hawrami Kurdish
- Tense and aspect cross-linguistically

Kinangusta? Who are we?



- NSF Documenting Endangered Languages Grants #BCS 1760977; and 1761680 (Lane Schwartz, PI)
- Mathy Junior Faculty Award in the Arts and Humanities
- George Mason University Presidential Scholarships
- GMU CHSS Faculty Research and Development Award
- NSF CAREER Award #BCS 2142340



Sivuqaghhmiit Sivungaghmiitlu

Ayaka Anders Apassingok, Qergengaawen Lydia Apatiki, Petuwaq Christopher Koonooka, Qaguus Shem Rose Koonooka, Ukaall Crystal Aningayou, Amaghalek Beulah Nowpakahok, Apangaluq John Apangalook, Yupistek Aaron Iworriggan, Yuka Ungwiluk, Avruuy Miriam Toolie, Nanik Joelaine Annogiyuk, Puni Carol Miklahook, Tasi Zinnia Nowpakahok, Kawaawen Edythe Oozevaseuk, Tagiikaq Maxine Ungott, Yaghaq Preston Apangalook, Sukaay Charlene Apangalook, and many others.

Project affiliates

Faculty; PhD, MA, undergraduate, and high school students, retirees;
funded and volunteer

Linguistics and computer science

Dr. Lane Schwartz, Dr. Harim Kwon, Dr. Emily Chen, Dr. Hyunji Hayley Park, Benjamin Hunt, Giulia Masella Soldati, Emma Evans, Preston Haas, Kaelynn Mae Kenny, David Ngo, Kai Pappas-Knowles, Arlee Pearlswig, Jared Purcell, Wills Davis, Peter Zuckerman, Wade Swede, Michael Carter, Silanur Inanoglu, Rebecca Jacobs, George Wright, Saja Alburaik, Shadden Alfadhil, Abdullah Alfaifi, Omar Alkhonini, Nicole Braccia, Kaila Diaz, Darlene Fahrenkrug, Nemesis Garcia, Yuting Gao, Logan Kehoe, Thomas Kurpit, Amy Field, Lexie Lucero-Carter, Andreea Sandu, Hannah Schwarz, James Stratton, Yamei Wang, Ashlie Devenney, Logan Kehoe, Matthew Letourneau, Edward Jahn, Becky Smith, Nilima Mow, Farah Tfaili, Jasmine Haskins, Pu Meng, Kendal Bryant, Aliah Showkatian, Zoe Eng, Summer Chambers, Marley Arrindell, Eric Taylor, Thema Greene

'Agile' community-centered language work

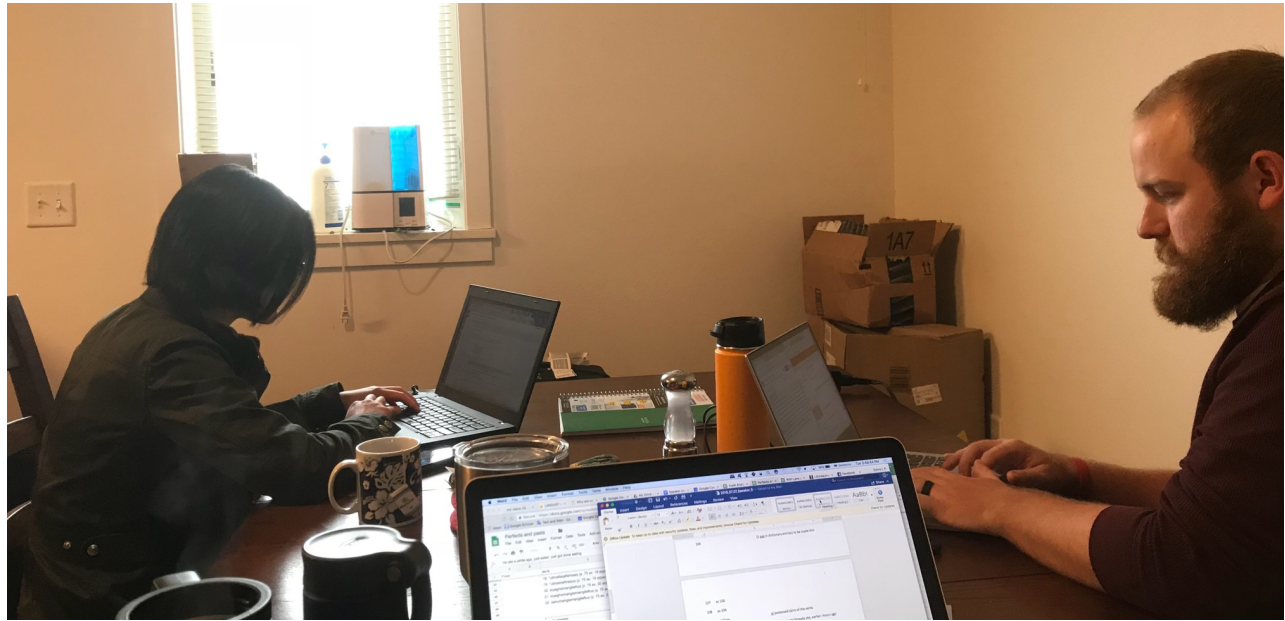


‘Agility’?

- Iterative collaboration
- “Cross-functional” team



Language
documentation &
revitalization
(within formal
linguistics)



- Colonialist “discovery”, “knowledge creation”
- Even “capacity building” (one-way street)
- Savior narrative

“The relationship between Inuit and the research community is replete with examples of exploitation and racism. Research has largely functioned as a tool of colonialism, with the earliest scientific forays into Inuit Nunangat serving as precursors for the expansion of Canadian sovereignty and the dehumanization of Inuit. Early approaches to the conduct of research in Inuit Nunangat cast Inuit as either objects of study or bystanders. This legacy has had lasting impact on Inuit and it continues to be reflected in current approaches to research governance, funding, policies, and practices.” (Inuit Tapiriit Kanatami National Inuit Strategy on Research, 2018, p. 7)

Figure 3: Where we need to go: Supporting Inuit self-determination in research

WHERE WE NEED TO GO: SUPPORTING INUIT SELF-DETERMINATION IN RESEARCH

✗ Stakeholders	✓ Rights holders
✗ Inequity	✓ Equity
✗ Invisible	✓ Visible
✗ Lack of Control	✓ Control
✗ Reactive	✓ Proactive
✗ Racism	✓ Respect
✗ Paternalism	✓ Agency
✗ Extraction	✓ Investment
✗ Exclusion	✓ Inclusion
✗ Frontier	✓ Homeland
✗ Competitive	✓ Collaborative

- Research: On? For? With? By? (Czaykowska-Higgins 2009)
- Datta 2018 (“Decolonizing both researcher and research and its effectiveness in Indigenous research”)
 - Collaborative research
 - Collective ownership
 - Collective presentation
 - Building ongoing relationships





- Building relationships
- Participation in the community
- Acknowledging power differentials

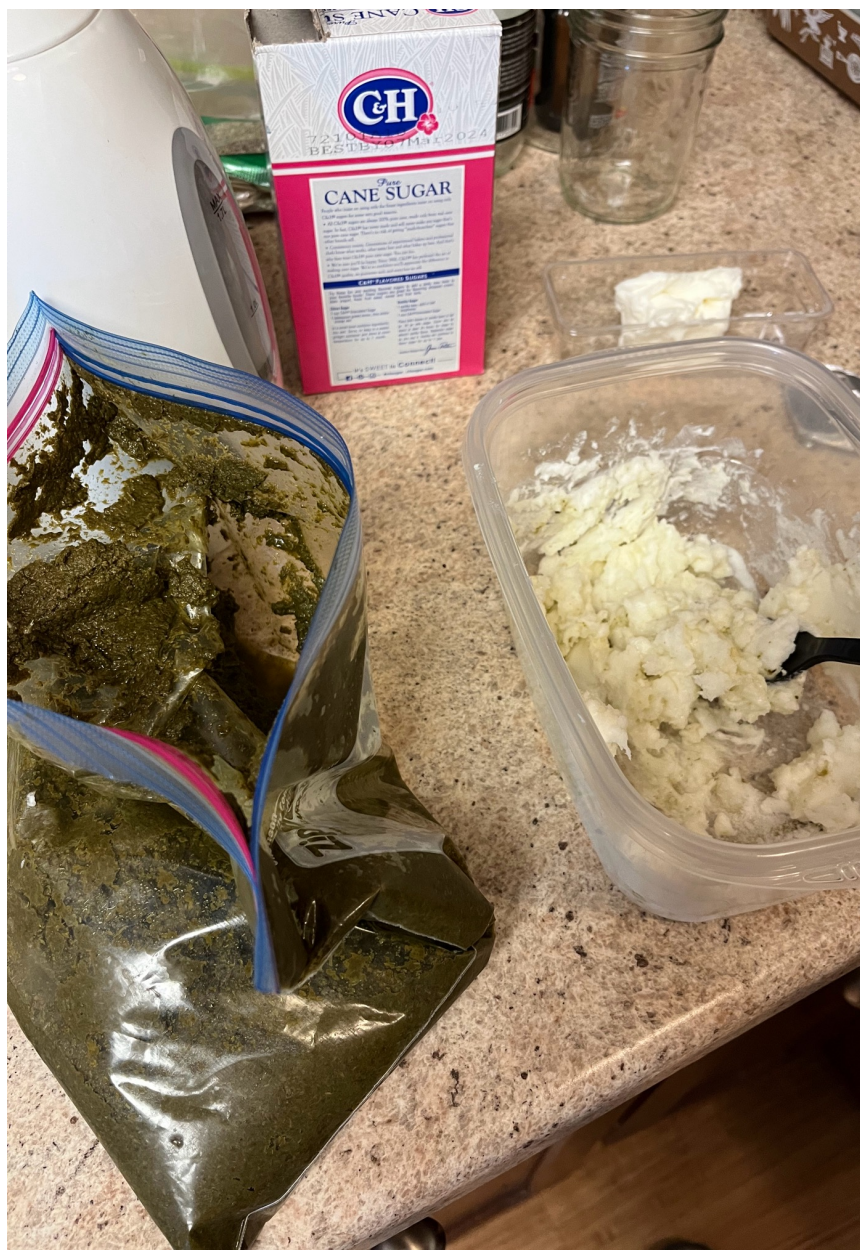
- Community-led
- Capacity-building → empowering
- Promoting and participating in Indigenous epistemologies (including ways of learning)



- What does the community need?
What do they want?
- Who represents the community?
(dictionary)
- Talking to leaders and rights
holders
- Recognize your responsibility for
cognizance (they have a history
and a backstory) (lyaka);
understand the legacy of Western
research
- Prioritize their ways of knowing,
their needs and desires, uplift
their voices









Sangan Sivuaq Akuzipiklu? Saaqestaa?

Why Sivuaq and Akuzipik? What are we doing?



Language and Language Ecology

Akuzipik (*Whangkutestun*/
Yupigestun/Yupik/ St.
Lawrence Island Yupik/
Siberian Yupik/Chaplinski
Yupik)

- Inuit-Yupik-Unangan
- Polysynthetic
- Verbs, nouns, demonstratives, particles; 600+ "postbases"

Spoken as a first language by fewer than 1000 individuals

- On St. Lawrence Island, Alaska;
- On the Chukotka Peninsula of Russia; and
- In mainland Alaska (de Reuse 1994; Schwartz, et al. 2020)

siqineghllugughsimakanga

siqineghllug - ~:(ng)ughte - @~:(i/u)ma - ke - nga

excess.sun - start.to.be.N - PAST - PTCPL - 3sg

'the sun came out' (Apassingok et al. 1993)

Sivuqaq, Inc. 1963

Gambell

Sivungaq, Inc. 1969

Savoonga

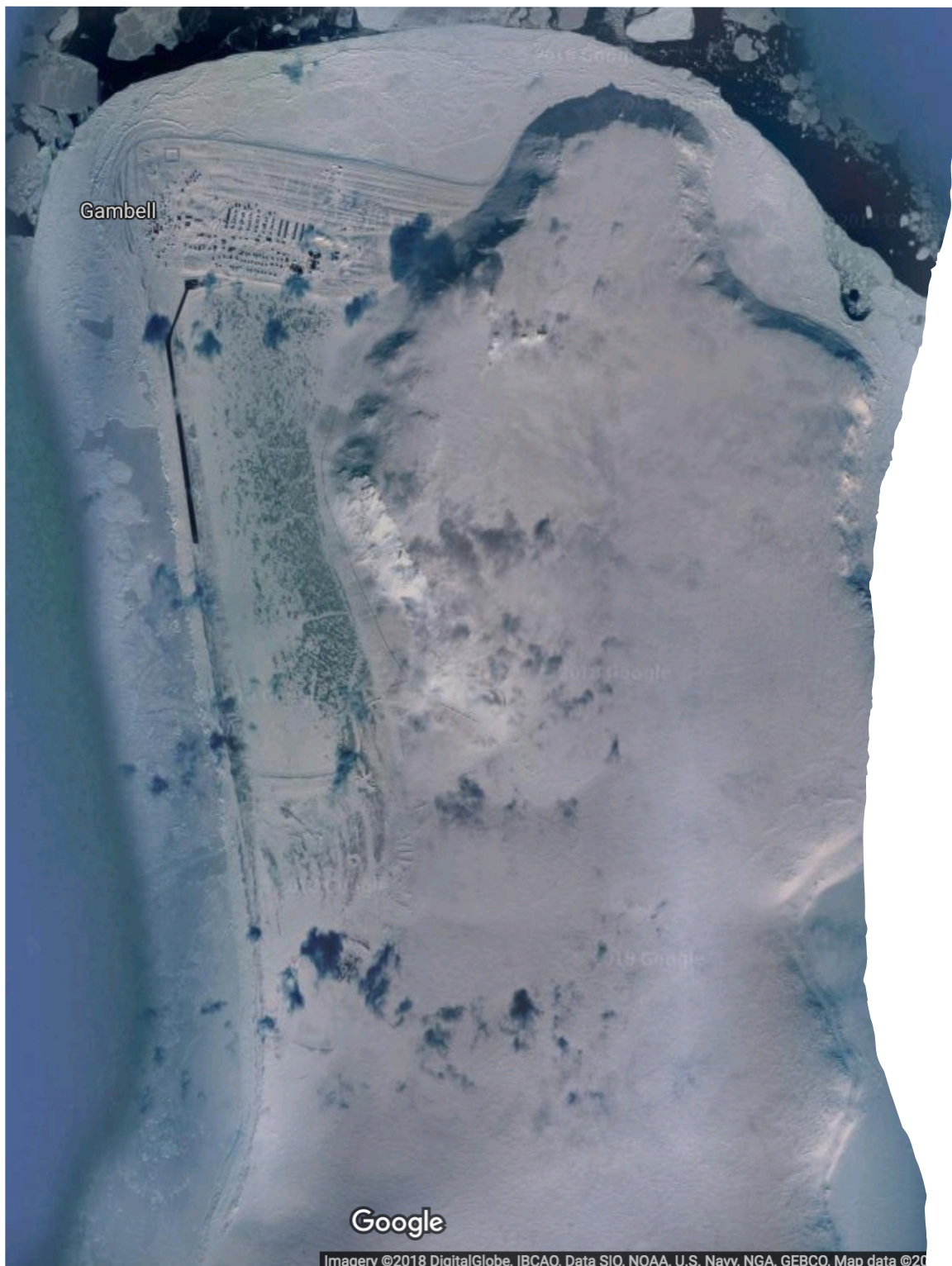
St Lawrence
Island

Dramatic generational shift

- Towards Russian beginning in the 1950s in Russia
- Towards English beginning in the 1990s in Alaska (Schwartz, et al. 2019)

Current situation:

- Most younger speakers are English- (or Russian-) dominant; Akuzipik taught as L2
- Some do not speak Akuzipik at all (Koonooka, et al. 2021)



Existing outsider scholarship

- Dictionary (Badten, et al. 2008)
- Pedagogical grammar (Jacobson 2001→)
- Some linguistic literature, mostly descriptive
- Yupik-language texts, curricular materials (1970s-90s)



The DEL Project



Objectives



Digitization & archiving



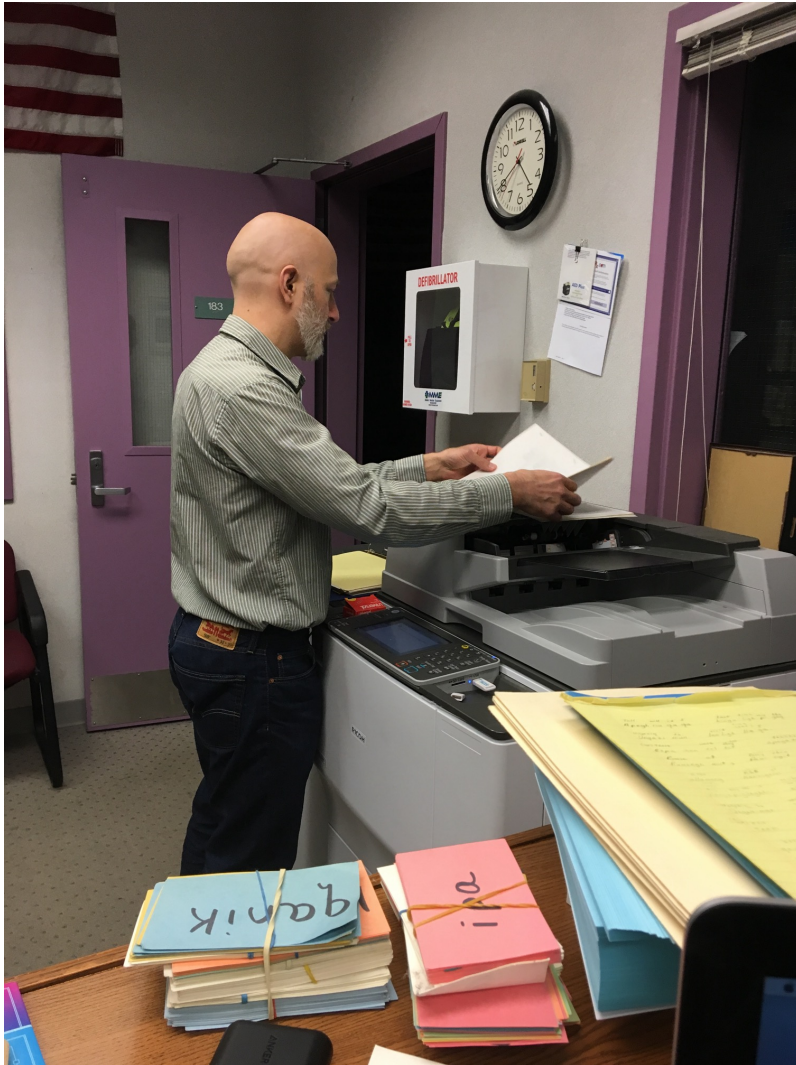
Computer tools



Language documentation



Supporting revitalization



ATEQ ANSWER SHEET

AGHVEPIK

1. Whanga (esghaghii - esghaghaqa) aghvepik.
2. Ellngan (esghaghaa - esghaghtuq) aghvepik.
3. Whangkuta (esghaghiinkut - esghaghagput) aghvepik.
4. Elpek (esghaghaqa - esghaghaten) aghvepiget.

- Digitizing ethnographies, folksongs and stories; Bilingual-bicultural pedagogical materials (current use)
- Building a searchable corpus
- Developing a repository for these materials that is easily accessible by the community and supports development of language tools


```
???
foma[1]: apply up akeqiinga
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V]~fnga[V→V][V][Intr][Opt][PRS][2Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V][V][Trns][Opt][PRS][2Sg][1Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V]~fnga[V→V][V][Intr][Opt][PRS][2Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V]~i[V→V][V][Trns][Opt][PRS][2Sg][1Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V]~fnga[V→V][V][Intr][Opt][PRS][2Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~i[V→V][V][Trns][Opt][PRS][2Sg][1Sg]
akeqe~i[V→V]~i[V→V]~i[V→V]~fnga[V→V][V][Intr][Opt][PRS][2Sg]
akeqe~i[V→V]~i[V→V]~i[V→V][V][Trns][Opt][PRS][2Sg][1Sg]
akeqe~i[V→V]~i[V→V]~fnga[V→V][V][Intr][Opt][PRS][2Sg]
akeqe~i[V→V]~i[V→V][V][Trns][Opt][PRS][2Sg][1Sg]
akeqe~i[V→V][V][Intr][Ind][1Sg]
akeqe~i[V→V][V][Trns][Intrg][3Sg][1Sg]
akeqe~i[V→V][V][Trns][Ind][3Sg][1Sg]
foma[1]: apply up akeqiinga
```

- Developing a suite of tools for use by speakers of the language (Schwartz, Chen)
- Aim: develop these tools in such a way as to promote use by community language activists (Hunt)
- Digitization → larger corpus → more accurate morphological analyzer
- Accurate morphological analyzer → efficient corpus searching
- → ability to locate existing documentation of phenomena, and their contexts
- = ability to build more complex tools for community members



Akuzipigestun Sangaawa

A dictionary for St. Lawrence Island Yupik



qavaghtuq

Search

☒ Akuzipik Search

☐ English Search

Parse

qavagh + [Intr][Ind][3Sg]

Results for qavagh:

qavagh-, verb (қаваҕ-) /qavɑs/ to sleep; to fall asleep



Itemquulteki

Let's take them apart



esghaghaqa

Parse

Possible analyses

• esghagh + ~(g)aqe[V→V] + [Intr][Intrg][3Sg]

• esghagh + [Trns][Ind][1Sg][3Sg]

Locating this resource on the web means community members can more easily access the dictionary

The dictionary employs the parser, so users can search for an inflected word

Atankuk naankuk neghtuk.



Neghi, qikmiq, neghi!





NEKEVGHAVIGANUN, **ATAASIQ**
NUNAGHLLAK ASINGANI

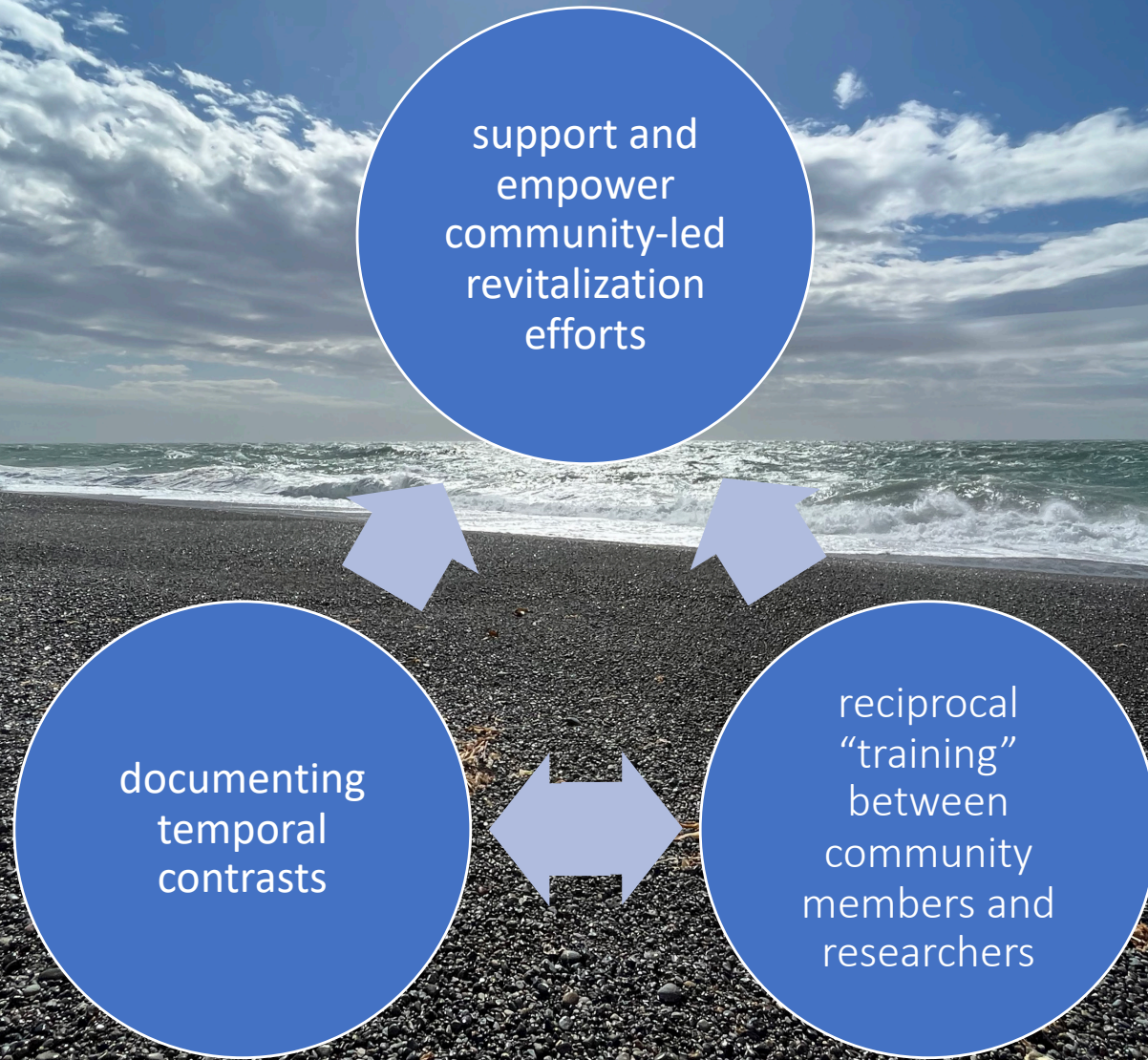


Documentation:

- Un(der)documented morpheme attachment rules, lexical items (→parser errors)
- Conflicting information in existing literature
- Un(der)documented syntactic and morphological phenomena
- Detailed positional and semantic work
- Phonetic work on vowels and consonants



CAREER Project



- Documenting temporal contrasts
 - Important for L2 learning situations
 - Difficult if not impossible to do with traditional interview or corpus methods
 - Poorly documented



- Methods
 - Elicitation with community-created, culturally-specific storyboards
 - Being drawn by a community member
 - Recording of narratives and conversational dyads
 - Topics for discourse prompts determined in collaboration with the community revitalization group → documentation of traditional knowledge accomplished simultaneously

Case study in progress: unmarked vs. -ma vs. -kaa

- (1) Neghtuq.
‘He/she/it is eating/ate.’
- (2) Neghumaaq.
‘He/she/it has eaten/ate.’
- (3) Neghegkaaguq.
‘He/she/it has eaten/ate.’

Existing documentation and out-of-context: unclear

- In a naturalistically produced story about the speaker sewing a parka:

(6)

Atkugek ulimakaakek
atkuk –gek ulima –(g)kaqe –ke –k
parka –ABS:UNPD:DU make –KAA:TR –TR:PCPL –TR:IND:3SGSBJ/3DUOBJ
esghaamaagka.
esghagh– –(i/u)ma –(g)agh –gka
see –MA –TR:IND –TR:IND:1SGSBJ/3DUOBJ
‘I saw the parka she made.’ (Lit. ‘The parka, she having made it, I saw it’)

- Scenario volunteered by a speaker: You heard through a chain of four people that your boat got stolen.

(7)

Tugukaqniit.

tugu-	-(g)kaqe	-ni	-(g)agh	-(ng)at
take	-KAA:TR	-say.that.one.is.V-ing	-TR:IND	-TR:IND:3PLSBJ/3SGOBJ

‘They (had) said he took/had taken it.’

But, if the event felt very immediate:

(8)

Tugumaniit.

tugu-	-(i/u)ma	-ni	-(g)agh	-(ng)at
take	-MA	-say.that.one.is.V-ing	-TR:IND	-TR:IND:3PLSBJ/3SGOBJ

‘They (have) said he took/has taken it.’

- Speakers noted that if someone were to come up to you and ask if a third party has eaten, you would most likely answer with the form of ‘eat’ with *-kaa* (*neghekaaguq*).
- However: “At the party—someone asks about my son. I’ll tell the first people that ask *Ighneqa neghegkaaguq aghneq*. Someone else asks, I say *Igneqa neghumaaq*.”

- *-ma:*
- You watch the person steal the boat. You call your brother to tell him.
- You watch the person steal the boat. You walk into the store to tell someone.
- You're on the beach, and you see the person steal the boat. Someone drives up on their Honda and you tell them what happened.

- *-kaa:*
- The next day, someone asks you what happened to the boat.
- You saw the boat get stolen yesterday. You walk into the store and someone asks you what happened.
- Translations/comments: “He already stole it. He has already taken it.” “It’s a fact, it’s stolen, he’s done, it happened.”

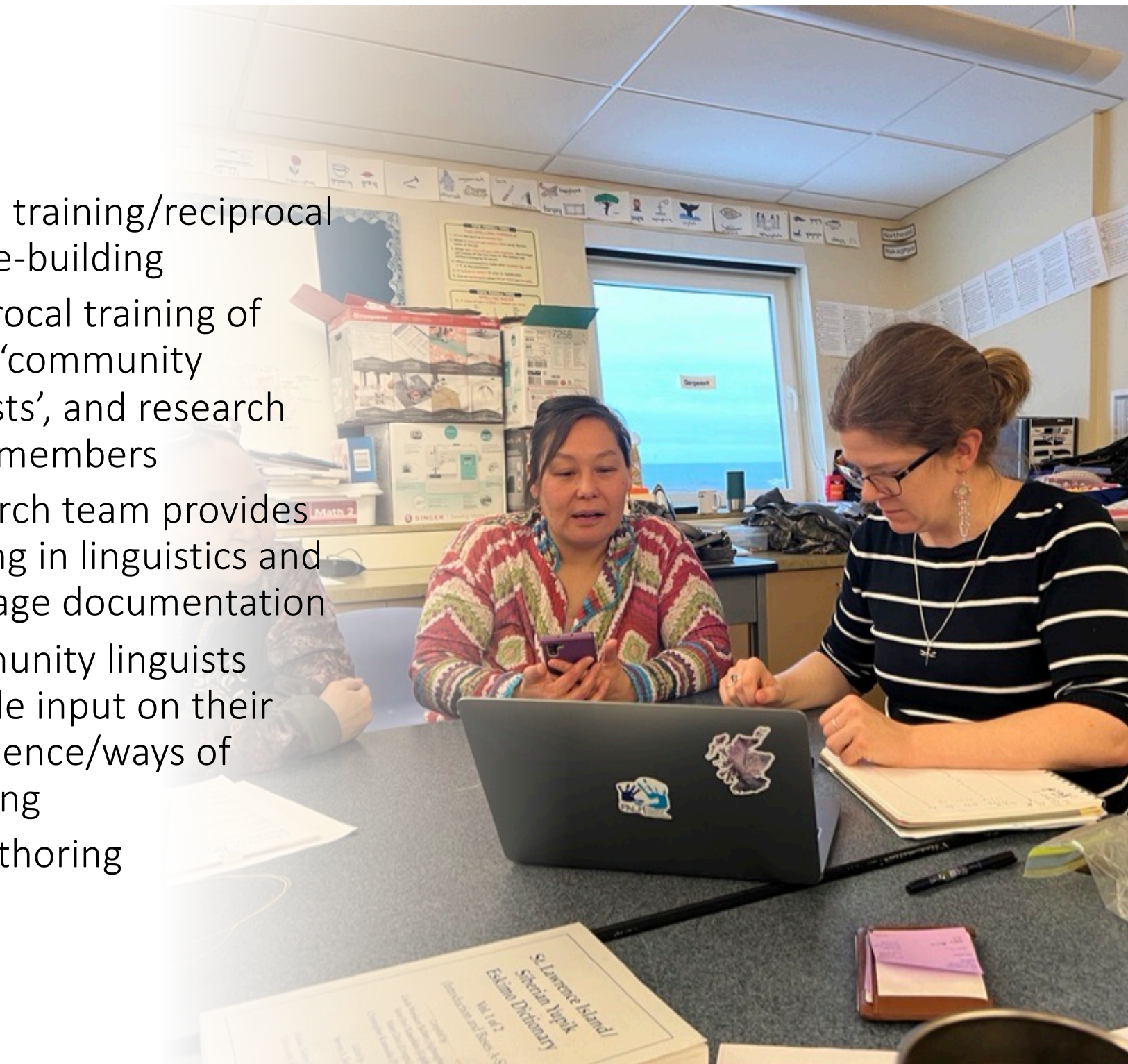
Current thoughts

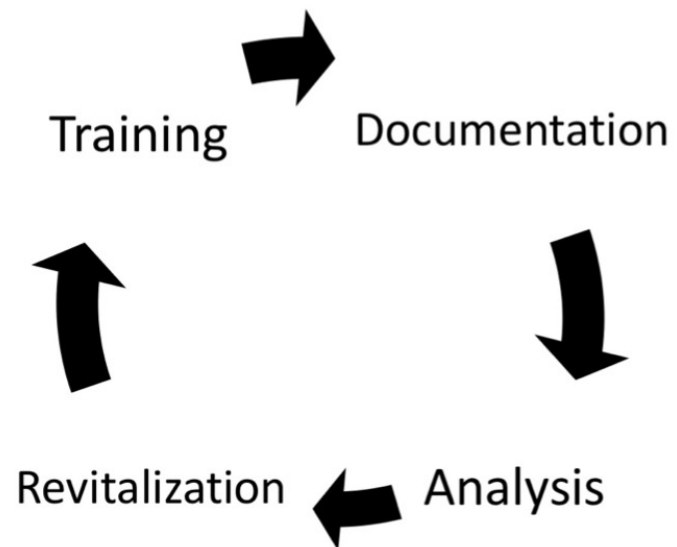
- Resultative –ma, “distant” past –kaa
- *aanuq* vs. *aanumaaq* vs. *aanegkaguq*
‘went out’ vs. ‘went out a while back’



- Output goals of documentation:
 - Supporting L2-type adult learning
 - Storyboards for use in immersion contexts
 - Recorded narratives and dyads for community/L2 use
 - Additional documentation of traditional knowledge


- Reciprocal training/reciprocal knowledge-building
 - Reciprocal training of three 'community linguists', and research team members
 - Research team provides training in linguistics and language documentation
 - Community linguists provide input on their experience/ways of knowing
 - Co-authoring

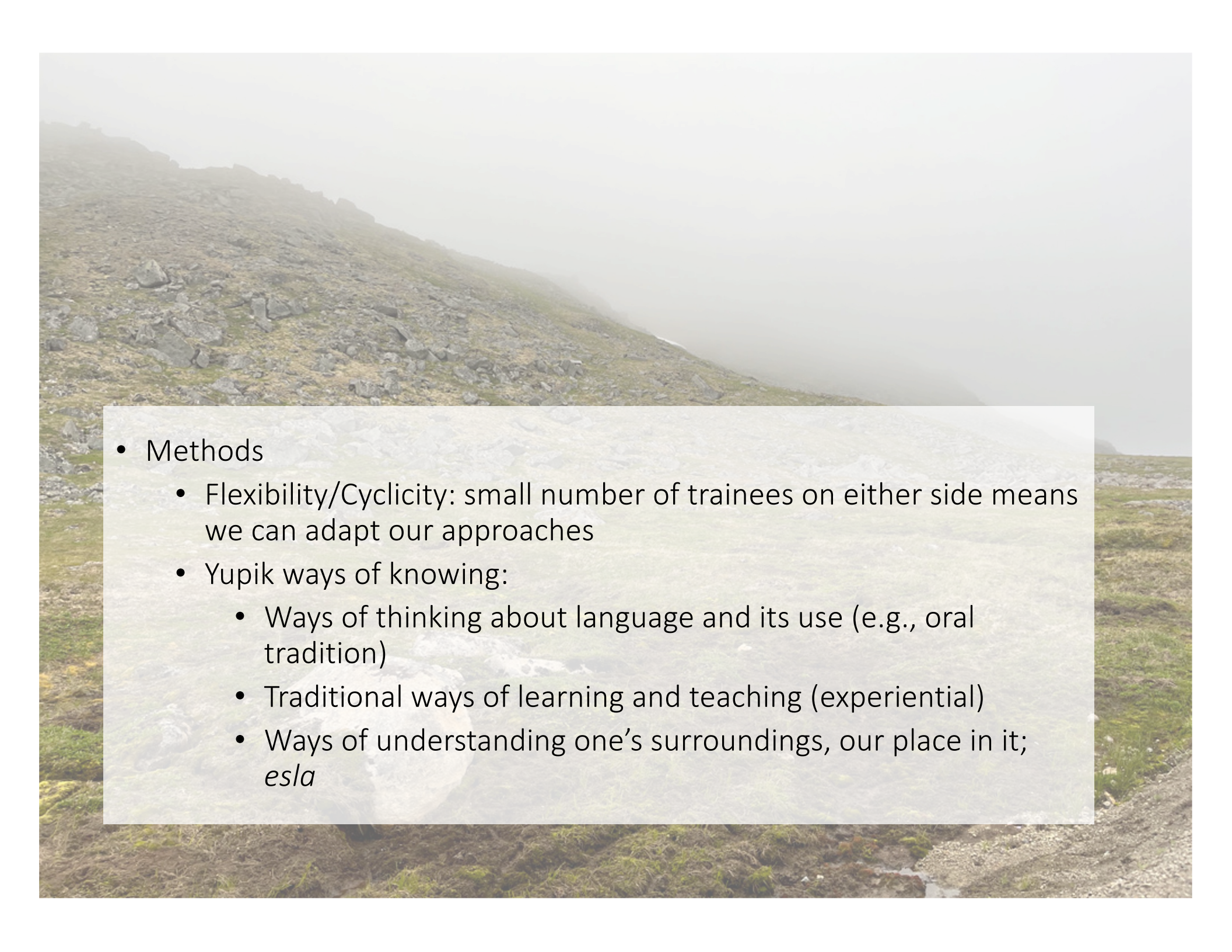




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Figure 1: The Chickasaw Model (Fitzgerald & Hinson 2013: 59; Fitzgerald 2017a; forthcoming) Fitzgerald 2018: 86

- 
- Researcher side of “training” focuses on key points in:
 - Sociolinguistics (language variation and change, language beliefs);
 - Language documentation, fieldwork, and reclamation
 - Familiarization with funding opportunities for Indigenous communities and guidance and support in grant-writing, as needed
 - Linguistics (major subfields, goals of linguistics, major typological patterns)

- 
- The background image shows a rugged, rocky mountain slope under a thick, grey mist or fog. The terrain is covered with dark grey rocks and patches of low-lying green and yellow vegetation. The fog obscures the upper parts of the mountain and the sky, creating a somber and atmospheric scene. A semi-transparent white rectangular box is positioned in the lower-left to center area of the image, containing a bulleted list.
- Methods
 - Flexibility/Cyclicity: small number of trainees on either side means we can adapt our approaches
 - Yupik ways of knowing:
 - Ways of thinking about language and its use (e.g., oral tradition)
 - Traditional ways of learning and teaching (experiential)
 - Ways of understanding one's surroundings, our place in it; *esla*



- Community members able to operate independently of research team
- Community members share Native ways of knowing with research team and provide research team with feedback on more and less effective parts of the training
- Research team uses this information to ameliorate and Indigenize training
- Community members become a resource for other members in the community (“second-generation” training)

Revitalization

Kaalguq

“Akuzipigelta Uluvut Igleghasqelluku

Uluvut Quyakusiqaghput

Uluvut Nangaghneqaghput

Uluvut Yupigulqaghput

Uluvut Unguvasiqaghput”

“Let’s Speak Our Language For It To Go On

Because

Language has spirit

Language Is Our Way of Life

Language Is Our Identity

Language Is Our Soul”




Community initiatives

- Revitalization group
- Language-learning group
- (Outsider status)

- Challenges
 - Food and income insecurity
 - Overcrowding
 - Life expectancy
 - *Language attitudes from elders, etc.
 - *Inaccessibility of previous work



- 
- An aerial photograph taken from an airplane window, showing a large, dark blue reservoir or lake in a dry, hilly landscape. The reservoir is surrounded by brownish-green hills and some small structures. In the background, a small town or village is visible on the shore of the lake. The sky is clear and blue. The view is partially obscured by the airplane window frame on the left and bottom.
- Strengths and goals
 - Community attitude
 - *Community interest (grocery store, NVG)
 - *Immersion curriculum
 - School board

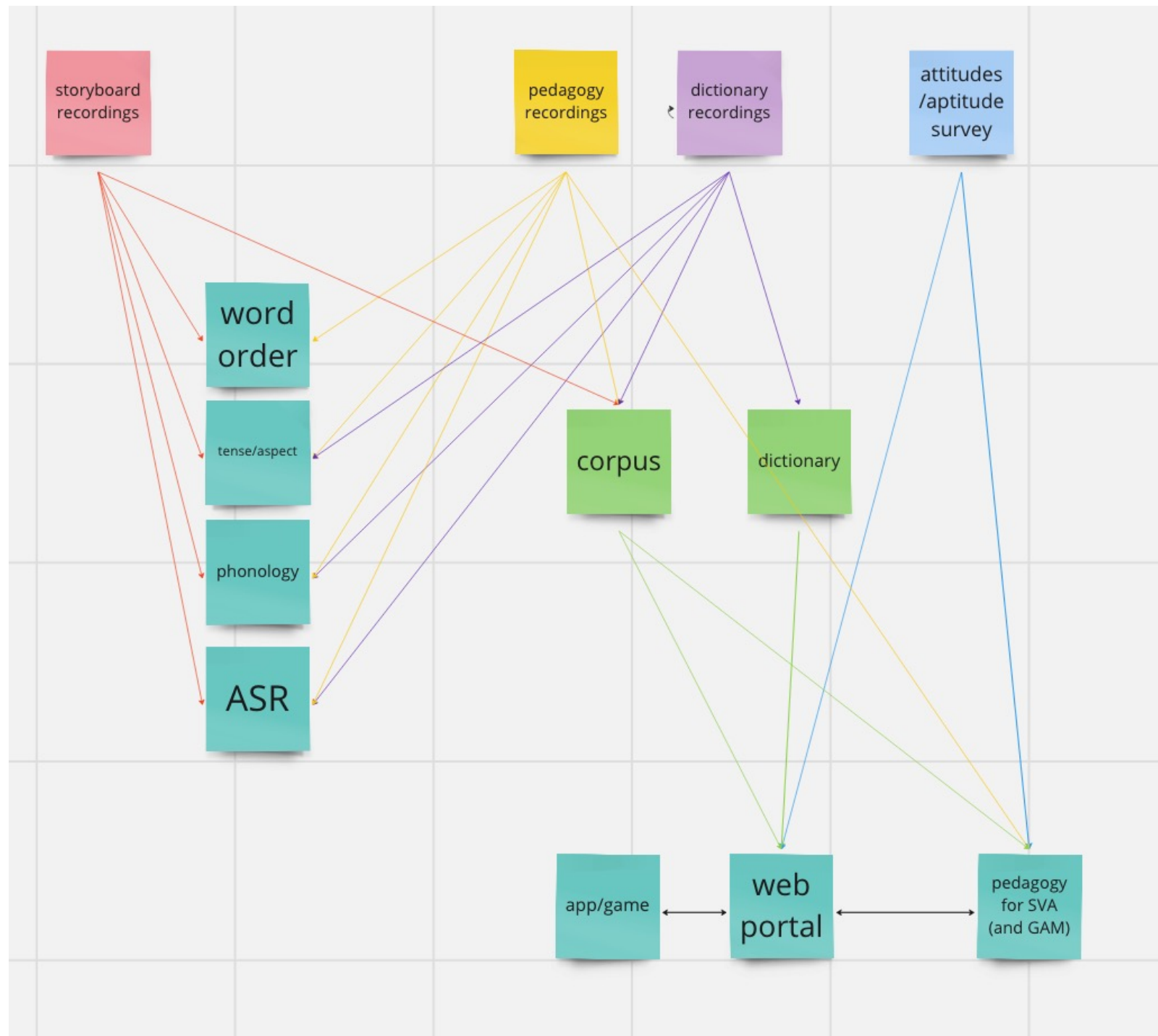


Looking ahead

What now?

- Revitalization group grants
- Akuzipik Zoom class (grant for paying elders)
- Reciprocal training with speakers and teachers:
work/research *with* and *by*
 - Language attitudes
- Connected projects →







For more information...

<https://ldl.linguistics.gmu.edu>

