

Collaborative Analytical Storywork: Story analysis in a revitalization context

MARIA HITA·ʔA·ʔOŋ PASCUA | MAKAH CULTURAL AND RESEARCH CENTER

ERIN HASHIMOTO | DEPT. OF LINGUISTICS, UNIVERSITY OF VICTORIA | erinhashimoto@gmail.com

Research questions

How can collaboration best support the transformation of legacy/archival materials to:

- gain insight into Elder speakers' language use,
- develop resources for revitalization and learning that invite language speakers and teachers to engage with documentation and, at the same time,
- facilitate the emergence of topics that could benefit from further linguistic research?

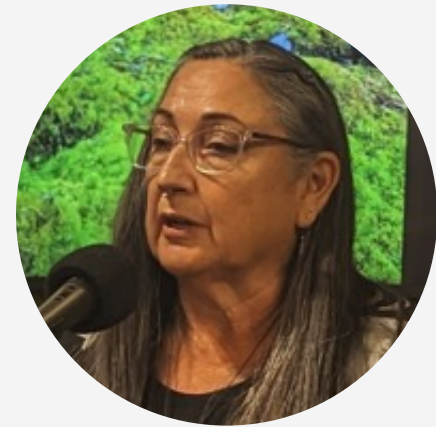
How can contemporary speaker perspectives be incorporated into this transformation process?

Presentation outline

- 1 **Research questions & purpose**
- 2 **Background**
- 3 **Collaborative Analytical Storywork: Model and process**
- 4 **Outcomes: Linguistic lessons and story materials**
- 5 **Future directions and reflections**

Self-introductions

Hita·ʔa·ʔoʔ Maria Pascua



- Gained greater fluency and proficiency in Makah through the MAP in the 1990s
- Makah language teacher at Neah Bay High School (1992-2022) and Peninsula College (2022-)
- Language specialist with the Makah Language Program/Makah Cultural and Research Center
- Master's in Indigenous Language Revitalization (MILR) at the University of Victoria
- Past experience working with linguists on language research

Erin Hashimoto



- Master's student in Linguistics
- Research experience in linguistics and historical-comparative research, allowing me to more easily navigate existing linguistic descriptions
- Undergraduate experience transcribing legacy materials of Q^{wi}·q^{wi}·diččaq provided by Dr. William H. Jacobsen's to the California Language Archive

Where are the Q^widiččaʔa·tǵ (Makah people) located?

On the NW Coast of North America on the Pacific Ocean side.



We are located on the northern most tip of the continental U.S. on the Olympic Peninsula



Our culture group, Nuča·nuł (Nootkan) live across the strait from us on Vancouver Island in British Columbia, Canada.



Q^widiččaʔa·tǎ (The Makah Tribe)

There are approximately 3,400 enrolled Makah tribal members and about 1,700 (~50%) live in the reservation community at Neah Bay. (Walter Rufus Arnold, Makah Tribal Council, p.c.)

The Makah Language Program (MLP) is located in the Makah Cultural & Research Center (MCRC) along with the Makah Museum, the Tribal Historic Preservation Office, and the Makah Archives.

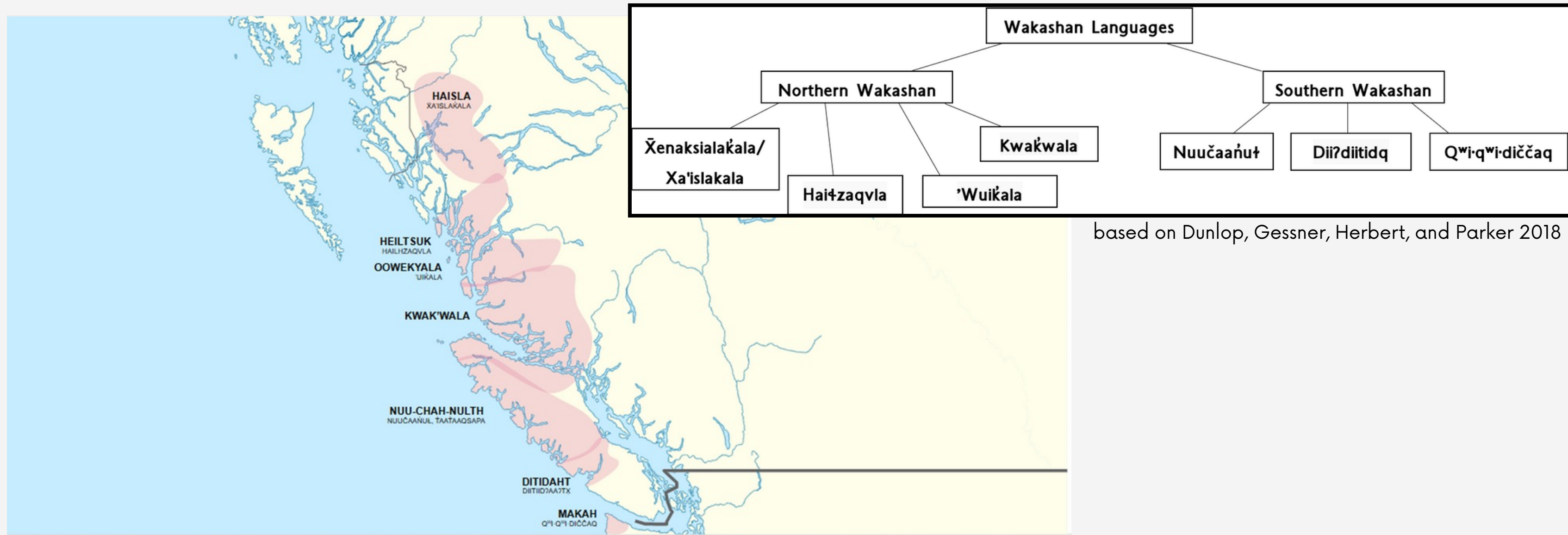
The MCRC has enabled and supported researchers and academics in the areas of archeology, anthropology, and linguistics. Some of the projects have helped our tribe in areas of revitalization and reclamation including this project.



Front doors of the Makah Cultural & Research Center

The Wakashan language family includes the Makah in Washington State, the Nuu-chah-nulth First Nations on the west coast of Vancouver Island, and Haisla First Nation on the mainland of the North Coast of British Columbia, Canada by Kitimat.

Makah, Ditidaht, Pacheedaht, and Nuu-chah-nulth speak southern Wakashan.



based on Dunlop, Gessner, Herbert, and Parker 2018

Makah Language Program

Since the Makah Language Program was established in 1978, projects and programs have included recording the language with Elders between 1978-2002, creating Makah books (see right), and language teaching.

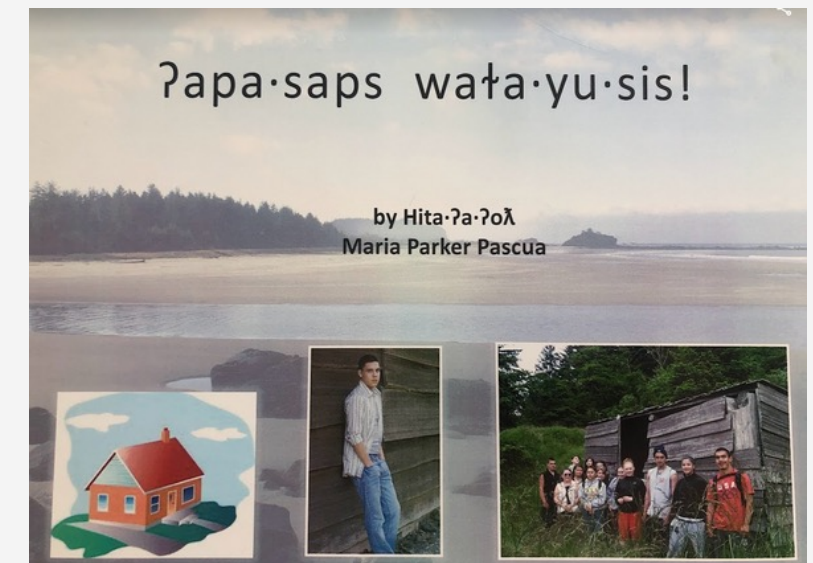
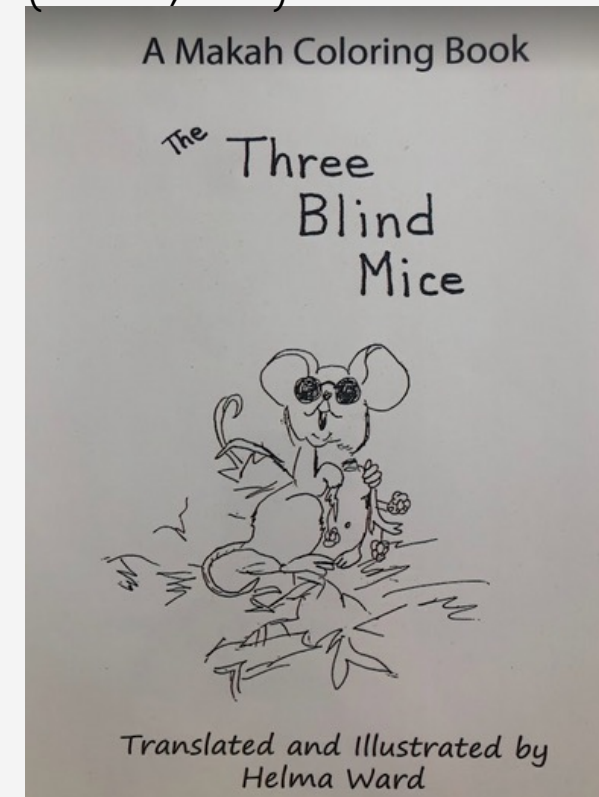
Learning Q^{wi}·q^{wi}·diččaq today:

Today, there are no L1 speakers. Those who are learning and teaching our language are L2 speakers.

Most language programs are for school-age learners being taught as a subject in pre-school through 8th grade, for high school credit, and remotely through a local college.

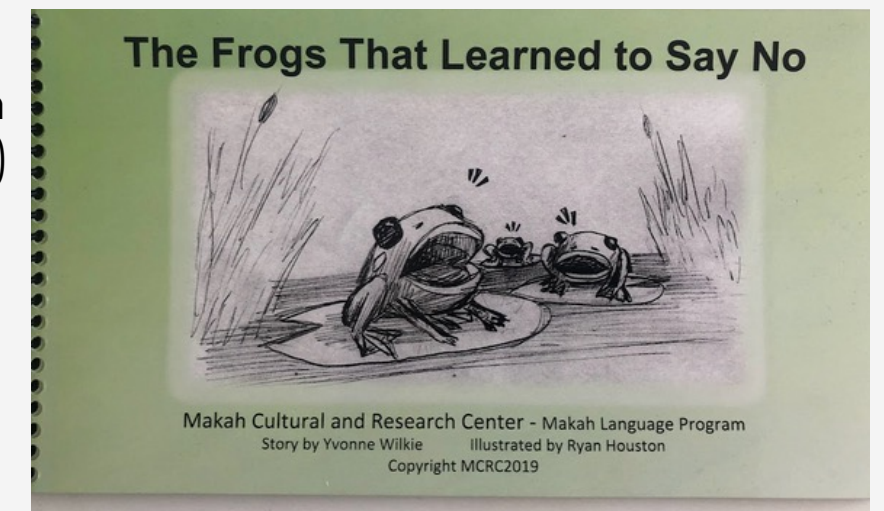
There are also occasional adult and community classes.

Coloring book of "3 Blind Mice" in Makah (English trans.) (Ward, n.d.)



Descriptions of different animals' homes in Makah (English trans.) (Pascua, n.d.)

Traditional Makah story told in English (Wilkie et al., 2019)



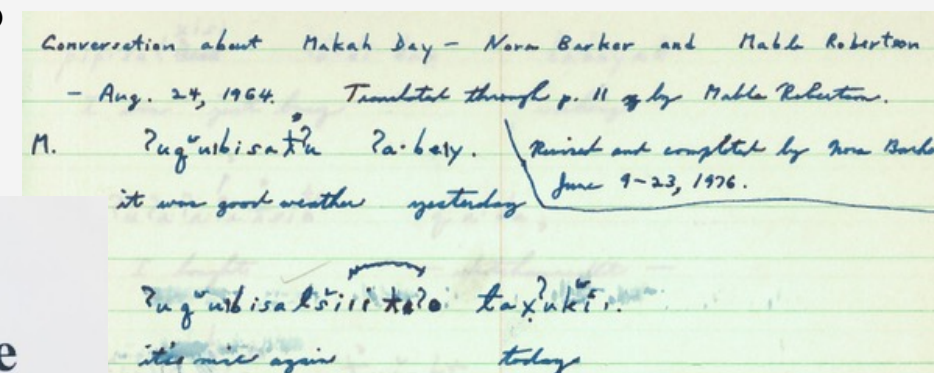
Current goals:

- Transcribe, translate, and transform archived recordings to be more easily incorporated in revitalization work
- Provide remote access to Q^{wi}·q^{wi}·diččaq resources for Makah tribal members anywhere
- Develop materials for various age groups and learner levels

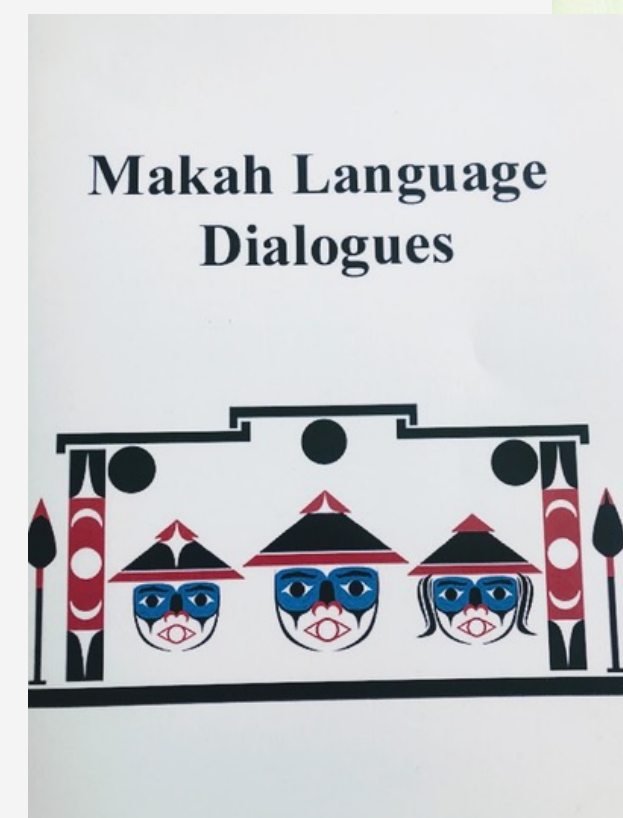
Other projects/areas of interest:

- Automatic Speech Recognition to assist with transcription
- User-friendly Makah dictionary
- Complete Minimal Course language lessons
- Online language learning
- Complete Q^{wi}· for Me! language app

Archived fieldnotes, audio recordings, and transcriptions
Makah Elicitation with Mable Robertson and Nora Barker,
2014-21.001.045



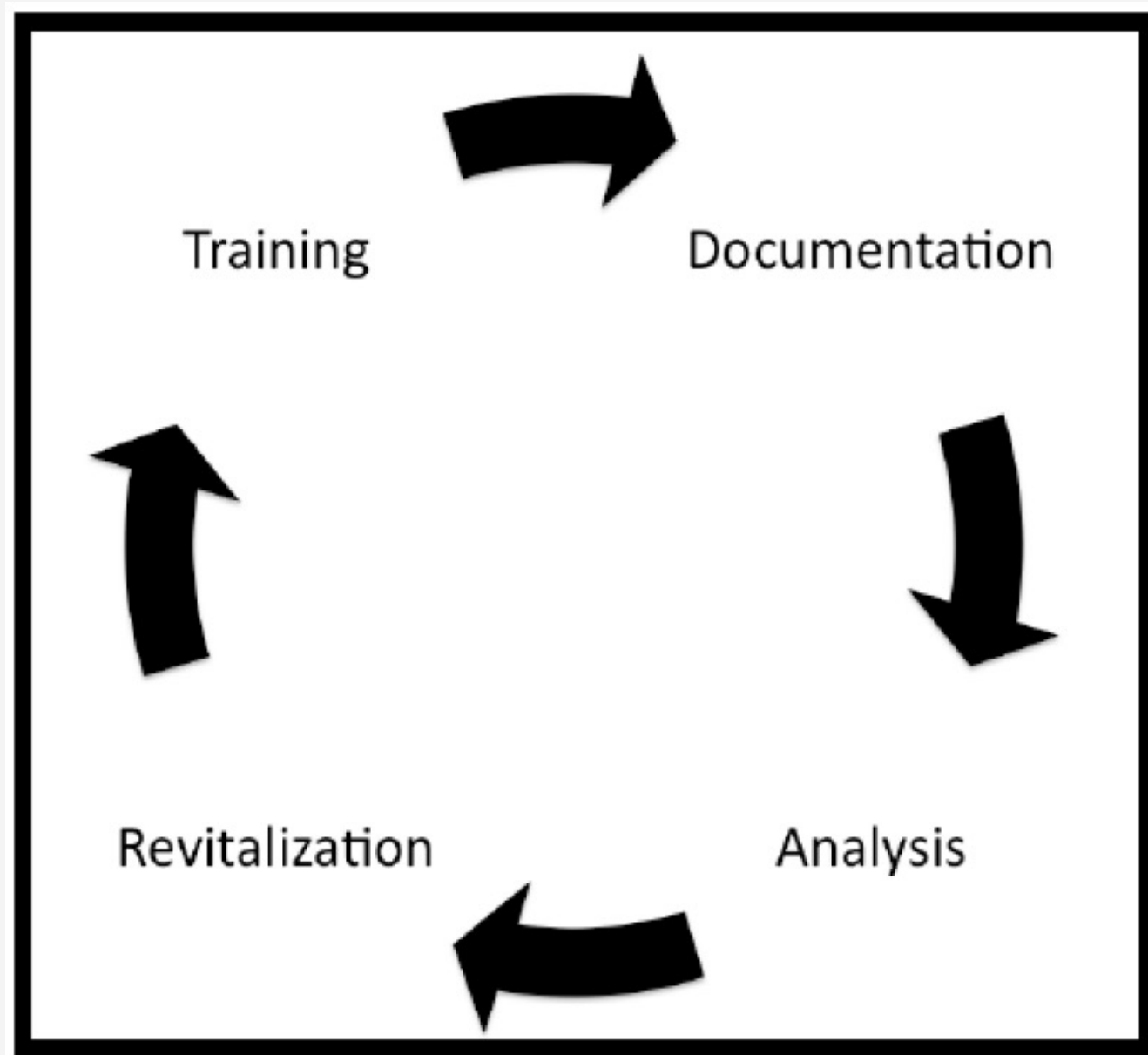
Conversation about Makah Day - Nora Barker and Mable Robertson
- Aug. 24, 1964. Translated through p. 11 of by Mable Robertson.
M. ?ug'wibisat'ha ?a: baly. it was good weather yesterday
Revised and completed by Nora Barker, June 9-23, 1976.
?ug'wibisak'wili'kə?ə taχ'uk'ir. it's nice again, today



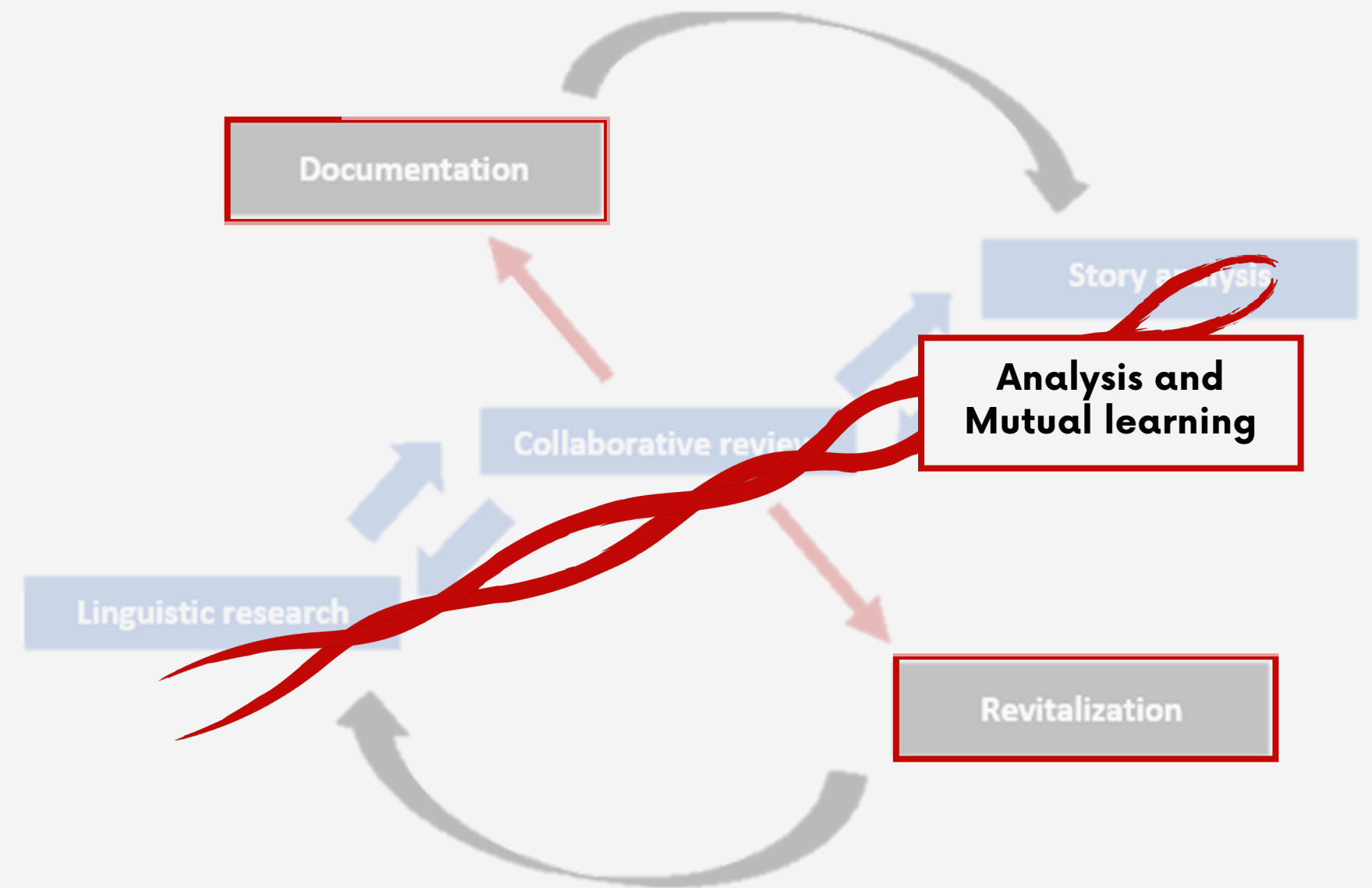
Q^{wi}· for Me! language app

Dialogues that learners can practice conversations that are relevant to life in Neah Bay (Pascua 2020)

Collaborative Analytical Storywork



Fitzgerald and Hinson's Chickasaw Collaboration Model,
Fitzgerald and Hinson (2013:59)



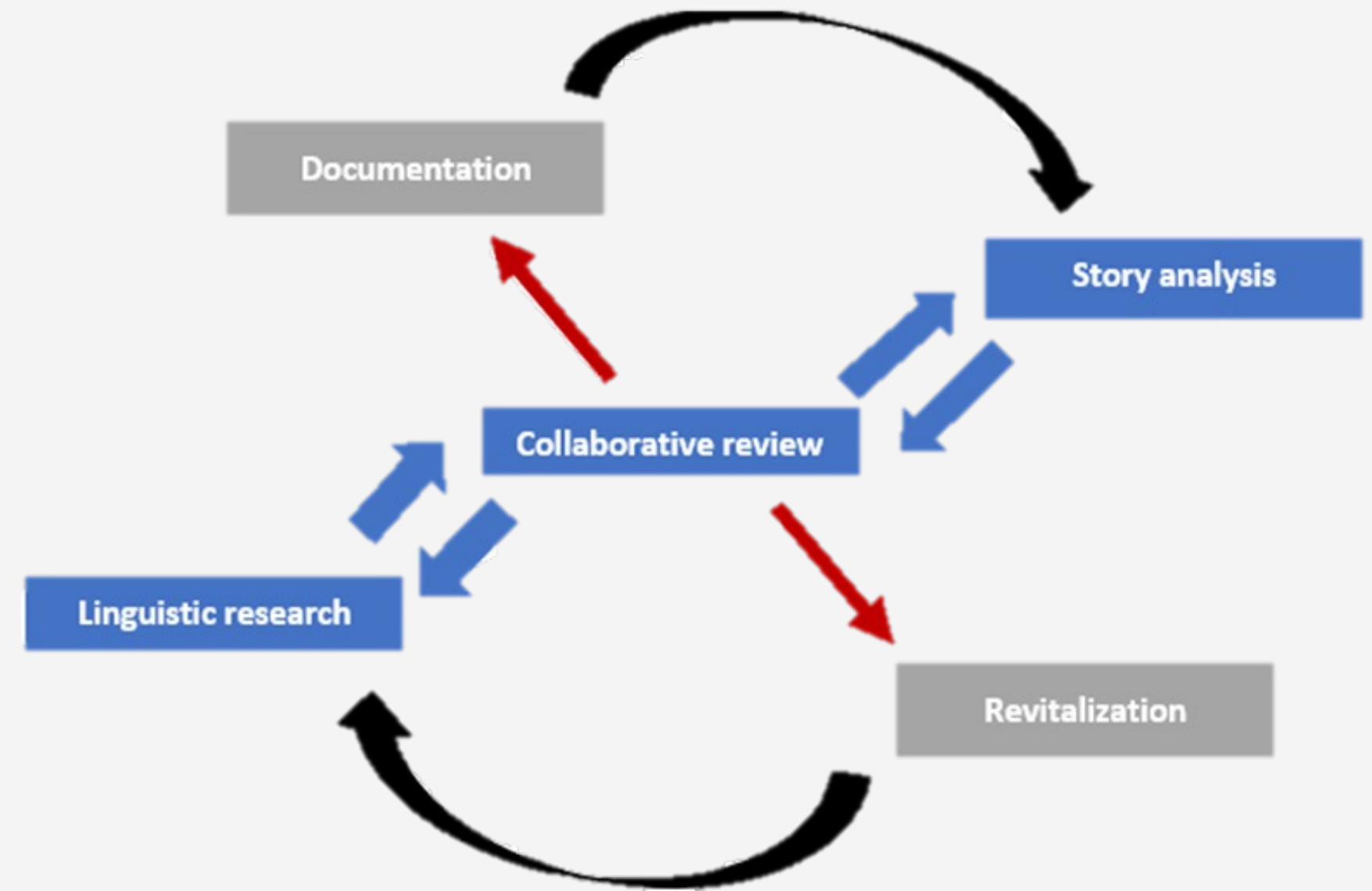
(Hashimoto 2024:35)

Collaborative Analytical Storywork

Project decisions were informed by available documentation and ongoing revitalization work and community goals.

The story analysis and subsequent linguistic research take place in feedback loops ("collaborative reviews") that enable the mutual learning inherent to the Collaborative Analytical Storywork method.

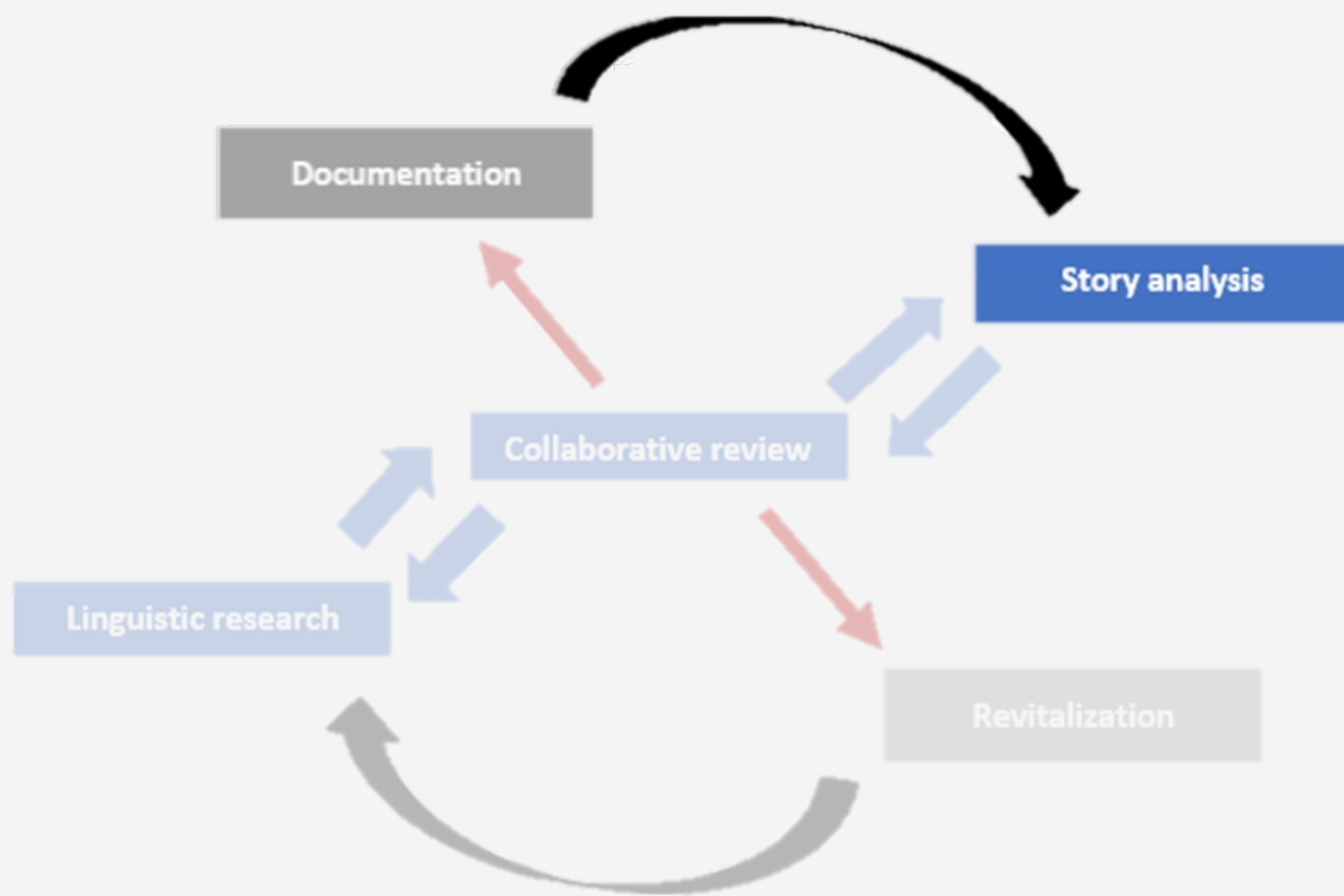
The outcomes of our research provide new resources for the documentation and revitalization of Makah.



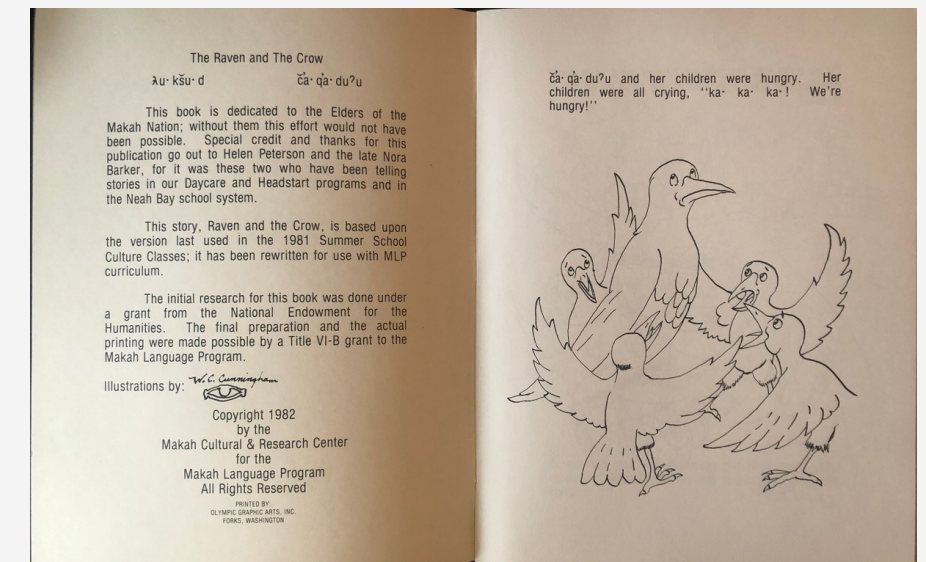
(Hashimoto 2024:35)

Story selection

A telling of the "Raven and Crow" story (4m55s) told by Ruth Claplanhoo on January 18, 1982 to MCRC employee, Melissa Peterson.

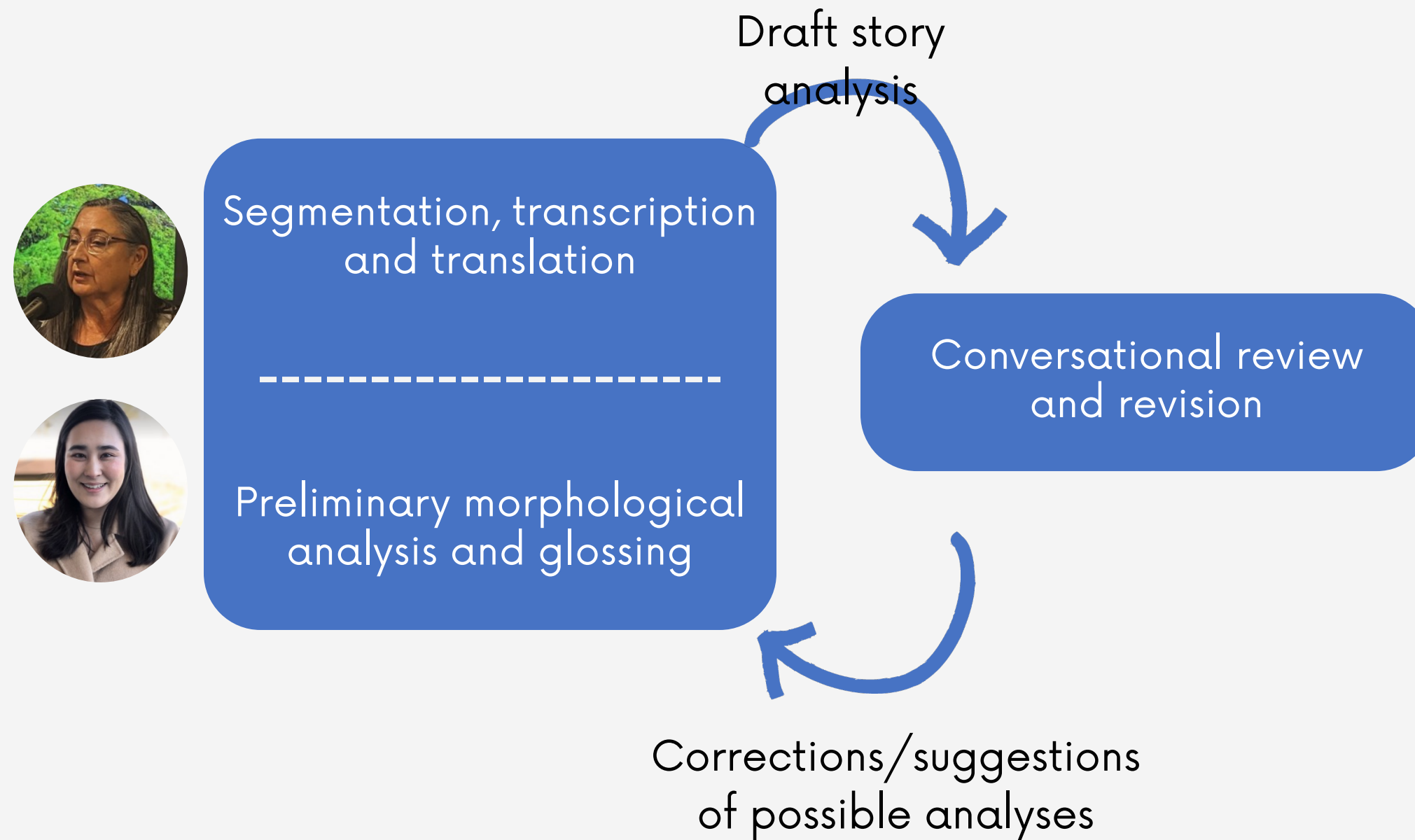


© Makah Cultural & Research Center, Photographer Theresa Parker



Another version of the "Raven and Crow" story published as a coloring book by the MCRC (1982)

Collaborative Analytical Storywork



Story analysis and collaborative review

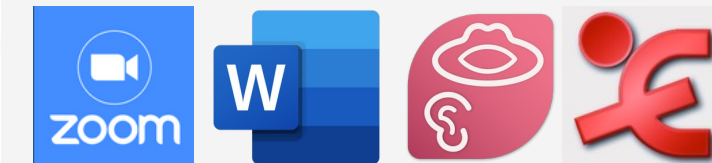
Time	Makah	English	Notes
	ʔuba·čayiks ha·wičaqš q=iyu·bito·wis Ča·qa·duʔu· hu·daqi·s.	I'm going to tell (a) story when Crow was getting driftage food.	
	(ʔuḥ...) ʔuḥu·ʔak ḥáčupsi·qs... ʔu·kšú·d.	She has a brother... (RC whispers, "How do you say Raven in Makah?") Raven. MPet - Yeah).	
	ʔuḥo·ʔak ḥáčupsi·qs ʔu·kšú·d.	She has a brother Raven.	
	ʔakya·ḥu·t kʷakʔowačiq ča·qadaʔu· ča·qadaʔu·	She has a lot of small crows.	
	ʔakya·q hakʔuḥʷ.	Many (were) hungry.	
36	"hišú . hu·daqi·seyiks." wa·ʔa1.	"Okay. I'll go get driftage food," she says.	MP: hu·di· which usually refers to something eatable that has drifted ashore. hu·di· driftage -i·ks bring along hu·daqi·seyiks I will bring along (some food) driftage. hu·daqi·s·eyik.s driftage. ʔ. bring along. def. future. I
	wa·ʔaʔwa·d ʔabe·ʔiqsʔuq Ča·qa·daʔu· .	So it was said (by) the mother Crow.	

^ Maria's transcriptions and translations

ʔuḥo·ʔak ḥáčupsi·qs ʔu·kšú·d.
 ʔuḥu·=ʔak ḥáčupsi·qs(u) ʔu·kšú·d(a)
that=POSS brother.of.a.female Raven
 She has a brother Raven.

ʔakya·ḥu·t kʷakʔowačiq ča·qadaʔu·
 ʔakya·-aḥu·(t) kʷa+kʷaʔakʷ=°išč=°iq ča·qadaʔu·
many-while=?? PL+small=DIM=ART crow
many-in.front PL+small=DIM=ART crow
 She has a lot of small crows.

< Draft analyses with commentary in Word created during our meetings

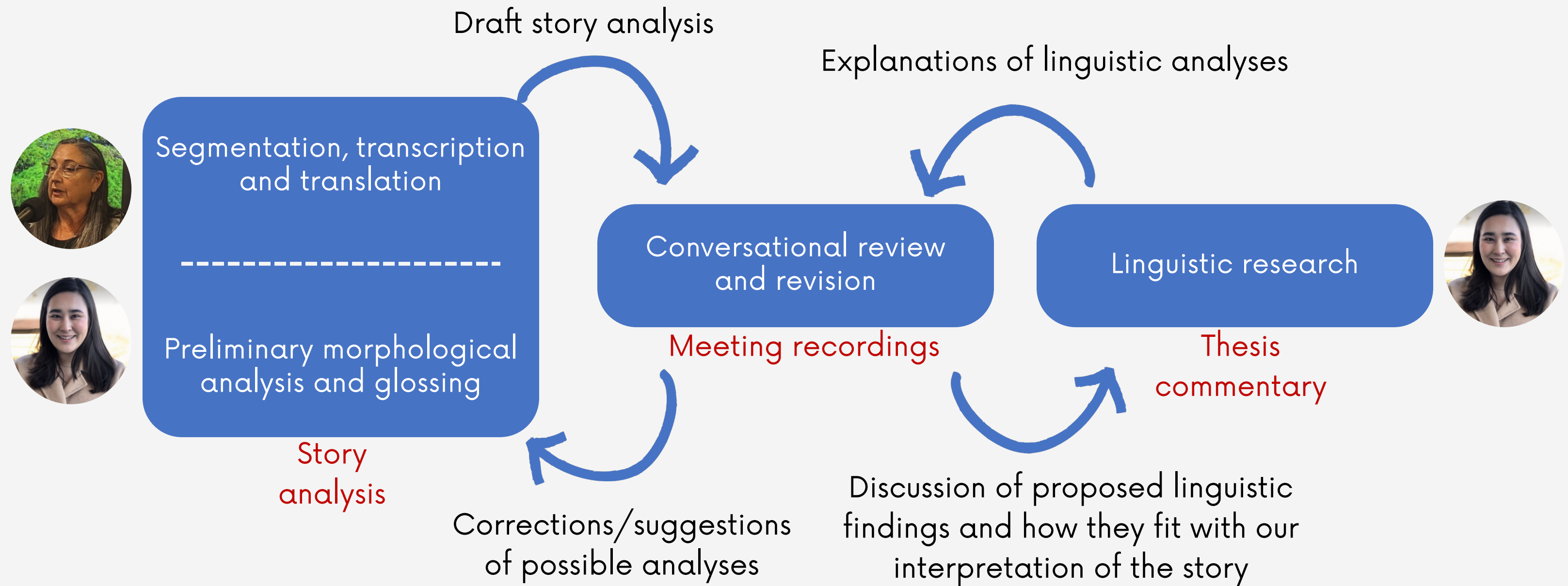


The screenshot shows a Zoom meeting interface. At the top, there's a video player showing a scene with a raven and crows. Below the video is a timeline with timestamps: 00:00:10.500, 00:00:11.000, 00:00:11.500, 00:00:12.000, 00:00:12.500. On the right side, there are two video thumbnails: Erin Hashimoto (top) and Maria Pascua (bottom). On the left side, there's a chat window with the following content:

- Ruth Claplanhoo's** [53]: (ʔuḥ...) ʔuḥu·ʔak ḥáčupsi·qs...
- Morphemes** [48]: (ʔuḥ...) ʔu·ḥu·=ʔakḥáčupsi·qs
- Linguistic Gloss** [48]: that=POSSbrother.of.a.female
- Meaning-based Gl** [31]:
- English translation** [53]: She has a brother...

^ Zoom meeting reviews of ELAN

Collaborative Analytical Storywork



Linguistic research and lessons

L1 ?uba·čayiks ha·wičaqš mi qʷiyu·bito·wis Ča·qa·du?u· hu·daqis.
 I'm going to tell (a) story when Crow was getting driftage food.

?uba·čayiks	ha·wičaqš	mi	qʷiyu·bito·wis	Ča·qa·du?u·
?u-aba:ču='eyik=s	ha·wičaqš	mi	qʷiyu=(b)it=o:wis=°i	Ča·qa·du?u:
ref.stem-talk.about=FUT=INDIC.1SG	telling.a.story	um (filled pause)	when=PAST=DUB=INDIC.3SG	Crow

hu·daqis

Based on Maria's knowledge of the story and naturalized translation 'getting driftage food', our initial analysis was:

hu·di· -? -i:s
driftage.food -? -carry.along

However, when I started looking into this analysis further, to try to understand the unanalyzed word-medial **q**, further questions were raised.

hurdi food found adrift, esp. a drift whale [N *hurñi-q-*, *hurñi'*]
 (Davidson 2002:412)

N -i:cs., M -i:ks carrying ... along
 Davidson (2002:361)
 * Note: **N** marks Nuu-chah-nulth forms

The -i:s suffix

L1 ?uba·ćayiks ha·wićaqš mi q^wiyu·bito·wis Ča·q̇a·du?u· hu·daqis.
 I'm going to tell (a) story when Crow was getting driftage food.

N -i:cs., M -i:ks carrying ... along

Davidson (2002:361)
 * Note: **N** marks Nuu-chah-nulth forms

Within the body of Davidson's dissertation he includes six Nuu-chah-nulth examples that list another lexical suffix **-i:s** 'carrying ...' :

<i>hini'smisʔaλeʔic</i>	<i>ni'hiʔ</i>	<i>haweʔ</i>
<i>hin-<u>i:s</u>-mi's = 'aλ = (m)a' = ʔic</i>	<i>ni'h-(č)it [L]</i>	<i>hawit</i>
empty.root- <u>carry</u> -move.about.beach=TEMP=INDIC=2sg	1pl-do.to	chief.VOC
main	bare absolute	
'You are taking us along the beach, O Chief.' (NA 77.29)		

(Davidson 2002:150)

In Makah, there are no analyzed examples of a similar alternation and the cause of this alternation is unclear.

baλ-, *baλšiλ* tie *baλa'* tied (rep., iter.) [N *maλ-*, *maλa'*] *babaλeyax* policeman *baλa'bup* tie
 sth up *baλa'pʔ* barrel *baλit* prisoner in jail *baλis* sth tied down on the beach ***baλi'ks*** tow-
 ing ***baλi's*** towing *baλo'was* jail *baλska'puba* rope to attach floats for whale hunting
baλturp cordage *baλas* door locked *ba'λqapʔeyukuba* dentalium headband

(Davidson 2002:387)

The root hu·di·

L1 ?uba·ćayiks ha·wićaqš mi q^wiyu·bito·wis Ća·q̇a·du?u· hu·daqis.
 I'm going to tell (a) story when Crow was getting driftage food.

hurdi food found adrift, esp. a drift whale [N *hur̃ni-q-*, *hur̃ni'*] (Davidson 2002:412)
 * Note: **N** marks Nuu-chah-nulth forms

Given our analysis of the ending of **hu·daqis**, we returned to attempting to understand the source of the **q** in this word and change to the second vowel of the root, **hu·di·**. We originally considered that this may be another suffix meaning something like 'many'. For example :

-**a·qa** or -'**a·qa** ([L]) 'severally ...-ing'
 N -(**q**)**aq** -**aqaq** [often **S+S**], M -(**k**)**it** 'very, big'

However, there's another possibility that we end up proposing in our analysis.

Combining roots are allomorphs of the free root (here, **hu·di·**) which are often "forms with shortened vowels, truncated final segments, [etc.]" Furthermore, some vowel-final roots in Makah may be followed by a "buffer **q**" when the root acts as a base to a vowel-initial or glottalizing/leniting suffix to prevent fusion as in **huda-q-i:s**. (Davidson 2002:173)

L1	?uba·ćayiks	ha·wićaqš	mi	q ^w iyu·bito·wis	Ća·q̇a·du?u·	hu·daqis.
	I'm going to tell (a) story when Crow was getting driftage food.					
	?u-aba:ću='eyik=s	ha·wićaqš	mi	q ^w iyu=(b)it=o:wis=°i	Ća·q̇a·du?u:	
	ref.stem-talk.about=FUT=INDIC.1SG	telling.a.story	um (filled pause)	when=PAST=DUB=INDIC.3SG	Crow	
	hu·daqis					
	hu-da-q-i:s					
	driftage-BFR-carry.along					

Final story materials

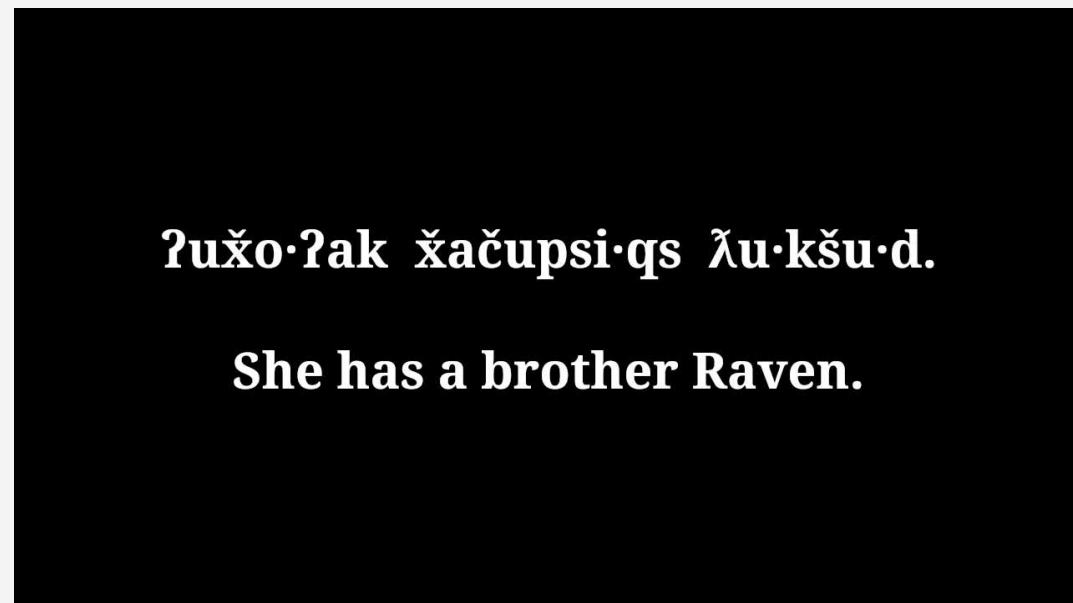


All final materials were presented to Makah language teachers and the MCRC Board of Trustees and will be held by the MCRC Archives:

- Meeting recordings
- Written thesis
- Final story formats
- Project guide outlining how different formats might be used and how people may choose to learn Q^wi·q^wi·diččaq from the story
- Step-by-step guides for people to download and use ELAN for listening to this story or time-aligning other recordings
- Definitions for linguistic terms and abbreviations used in the story analysis

Story materials have been sent to Ruth Claplanhoo's family to give them the chance to hear her storytelling again before it is shared more broadly.

Final story materials



Videos with captions (audio and written)

- Q^wi·q^wi·dičča^q only, or
- Q^wi·q^wi·dičča^q with English translations

Word documents with timestamps for reference to the original audio in 4 versions:

L7 ʔakya·x̣u·t̩ k^wak[?]owačiq ča·qadaʔu·
She has a lot of small crows.

ʔakya·a^{x̣u}·t̩
ʔaya·a^{x̣u}·(t̩) (+velar incr.)
many-in-front

k^wa+k[?]ow=[?]ič=[?]iq
RED+k^waʔak^w=[?]ič=[?]iq
PL+small=DIM=ART

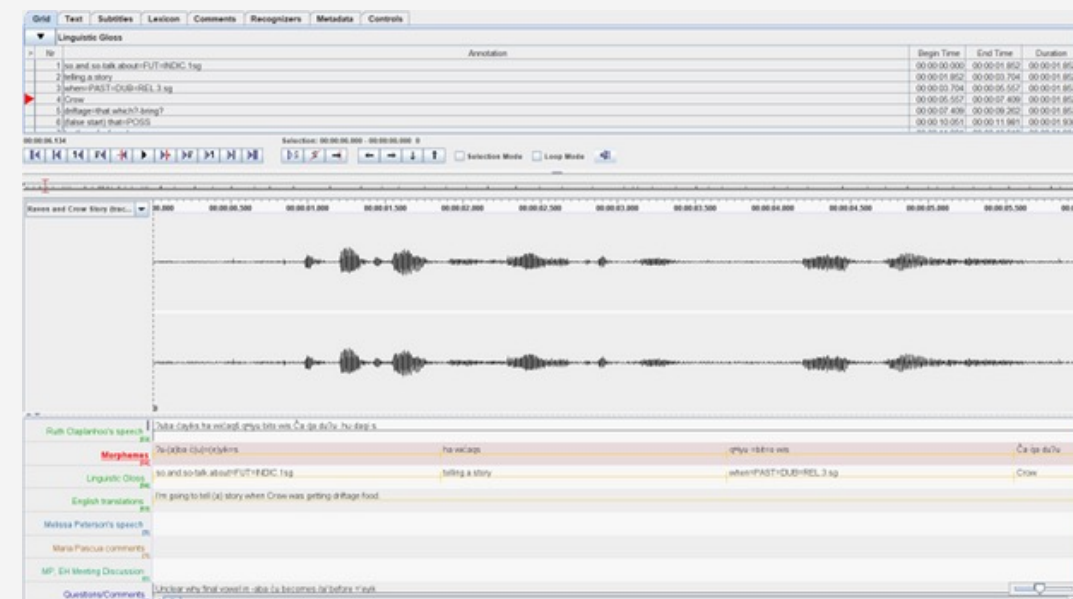
ča·qadaʔu·
ča·qaduʔu:
crow

L8 ʔakya-i-q hak[?]u^{x̣w}
Many (were) hungry.

ʔakya-i-q
ʔaya-i-q^w (+velar incr.)
many-many.score

haku·i^{x̣w}
haku·i·x̣(a)
hunger-suffer.from

- Q^wi·q^wi·dičča^q only,
- with English translations
- with morphological analyses using linguistic abbreviations, and
- with morphological analyses without linguistic terms (translated for meaning)



ELAN file

- With customizable tiers so that learners can read along with the story and replay parts of the story more easily

Story materials in the classroom



pusšʔalat hu·ta·q kʷakʷʔawačiq
hiyo·ʔaλ
The many little dancers got tired. It was done.

ya·tisi·ʔaλ ʔaša·bis ʔeʔiksčʔaλ
Here now are bones. He (Raven) ate it all up.

Connecting the story to the cultural lessons that it teaches. For example, the Makah teachings about sharing food and being generous can be highlighted with the Raven and Crow story.

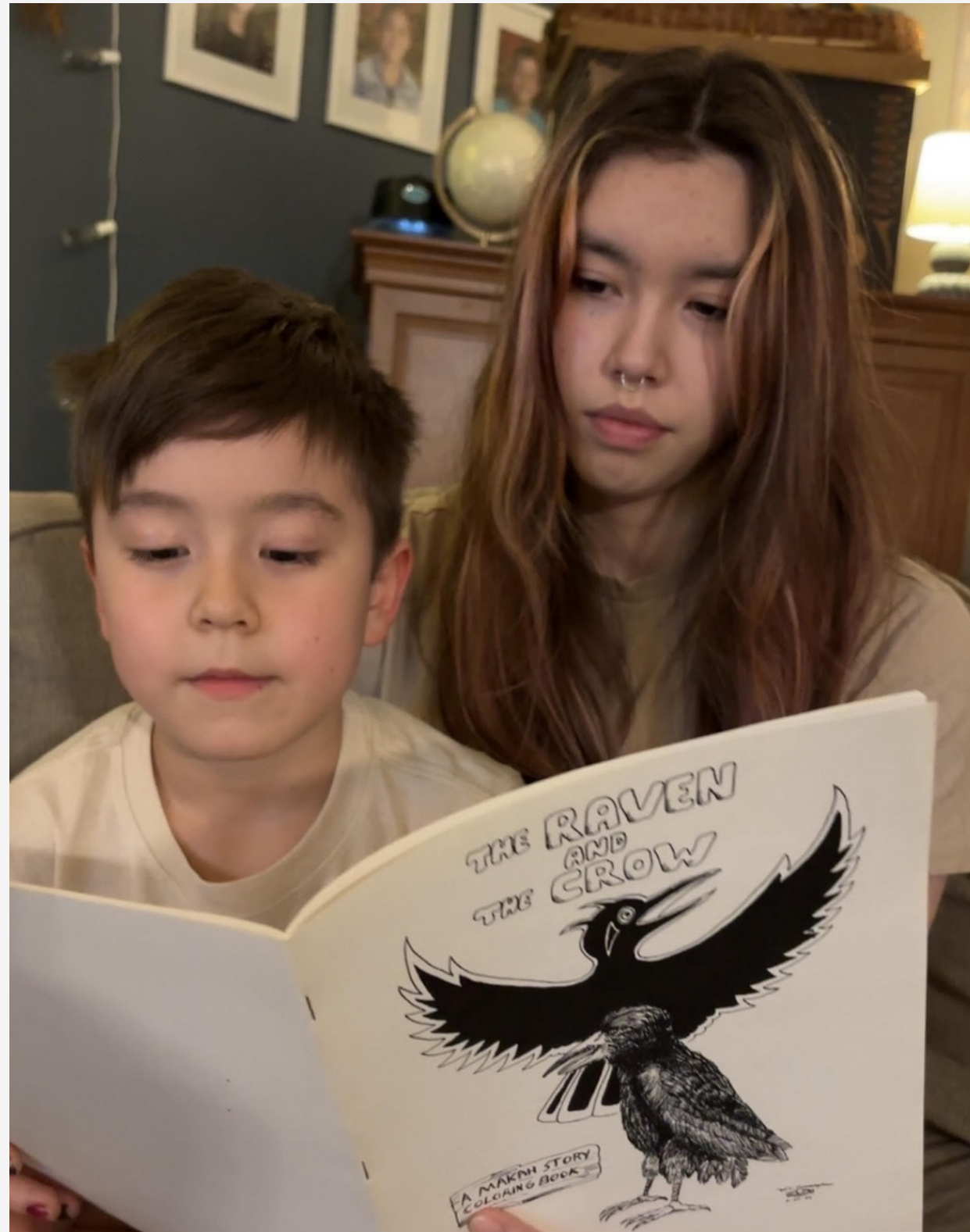
Drawing examples from the storytelling that give examples of grammatical lessons.

Underlying	Surface	Story word	Analysis
č=°	č	kʷakʔowačiq 'the little ones'	RED+kʷaʔakʷ=°ič=°iq
λ=°	l	wa·ʔal 'he/she/it says'	wa·='aλ=°
λ=°	l	yuyubaʔalc 'you are incorrect'	yuyubaʔ='aλ=°ic
λ=°	l	ʔa·qʷakšʔelaʔ '(something about straightening or believing)'	ʔa·qʷ-akʷ-šiλ='aλ=°aʔ
kʷ=°	w	ʔada·wiq 'the fire'	ʔada·kʷ=°iq
u=°i	ʔu	ʔabe·ʔiqsʔuq 'the mother'	ʔabe·ʔiqs(u)=°iq

Teaching vocabulary, word parts, or how to combine word parts to make new words based on learner level or students' age.



Ruth's story in the home with different age levels



Future directions for story materials



Time-aligned audio
for training ASR



Analyzed story with conversation
for Minimal Course development



New forms of roots, suffixes, etc.
for dictionary entries



Consider using other programs
like ReadAlong to share the
story

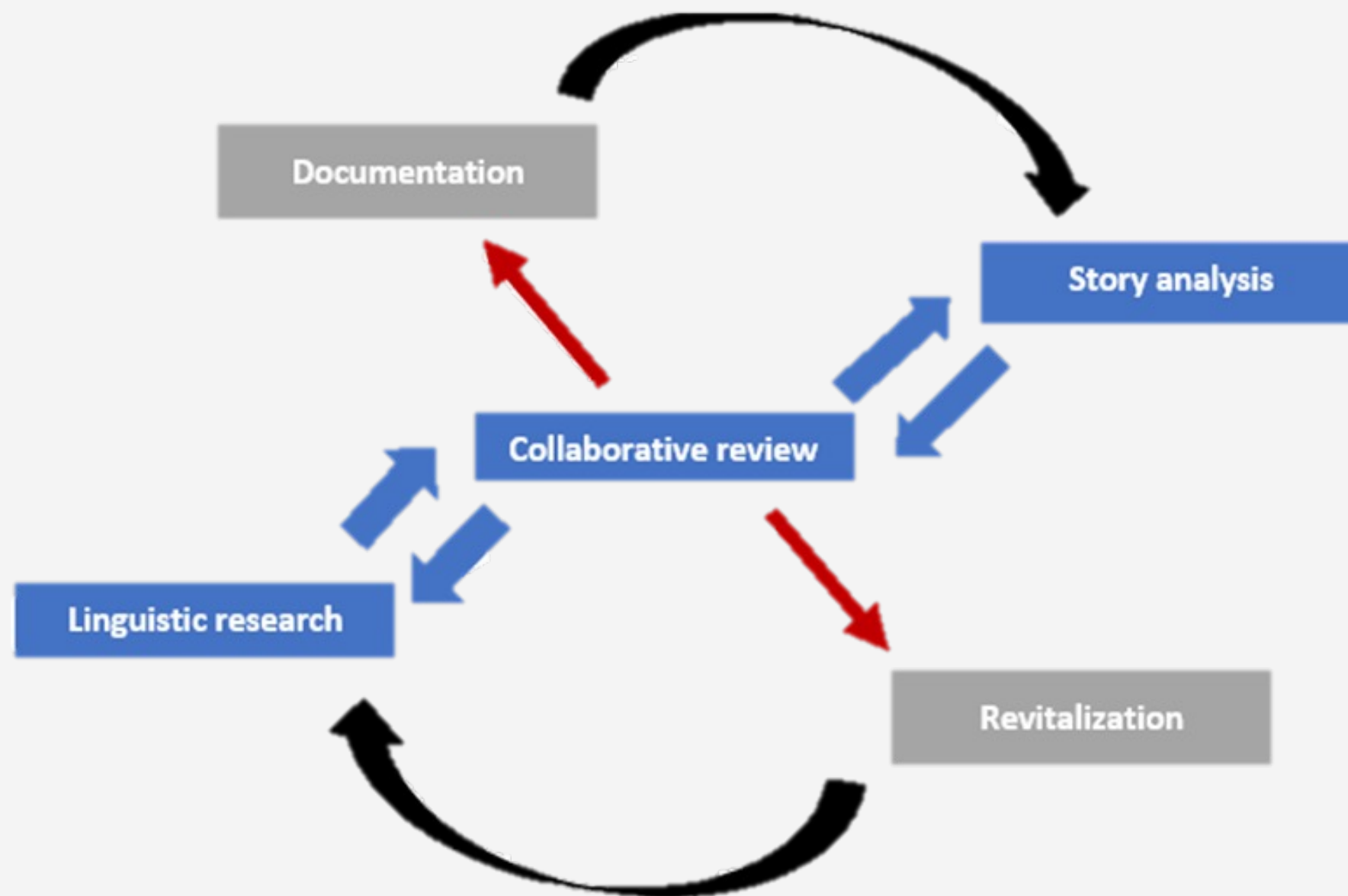


Development of related digital
resources for remote language
learning (e.g., Quizlet)



Include other versions of the
"Raven and Crow" story to
create a collective story

Summary



This model allows us to address many community-driven goals **while also** facilitating mutual learning/training between a community member and linguistics student AND enabling the emergence of linguistic topics for further research.

Summary: Reflections

Strengths

- Engages, enriches, and mobilizes existing documentation
- Creates materials that are flexible and easy-to-adapt
- Allows participants to broaden their perspectives and learn through the research process and from one another
- Shares workload based on skillset and capacity in contexts of limited linguistic descriptions, time, etc.
- Can be used to focus on a variety of linguistic topics based on the interests or expertise of participants

Challenges

- Story does not necessarily focus on or repeat particular linguistic features
- May not provide enough examples to answer all the questions it raises
- Requires a broader understanding of the culture and language
- These aspects of the research can make this research process highly challenging to begin with, but
 - This becomes easier with conversations between participants to gradually relate abstracted grammatical concepts to the story

Summary: Adapting the model

In communities who are:

- In a reclamation/revitalization context where L1 speakers are not able to participate in research
- Working with limited capacity to continue growing their language programs
- Looking to develop linguistic understandings of their language while also creating new language materials
- Interested in community training or knowledge sharing between research participants

Foundations:

Researchers with mutual respect and complementary perspectives or skillsets that suit community priorities and interests

Conversations before and throughout the research process to guide the focus of additional research

Collaborative review process to share perspectives and bridge knowledge gaps where different members of the research team may be less familiar or fluent

Relationships between researchers are informed by collaborative research methods and storywork contextualizes the participants' relationships with story and the roles of story in the community context

ʔušu·yakšʔalica·



Thank you
Questions or feedback?

erinhashimoto@gmail.com

References

- Bowechop, Janine & Patricia Pierce Erikson. 2005. Forging Indigenous Methodologies on Cape Flattery: The Makah Museum as a Center of Collaborative Research. *American Indian Quarterly* 29(1/2). 263–273.
- Claplanhoo, Ruth. 1982. Raven and Crow. Interviewed/recorded by Melissa Peterson. [Unpublished audio recording]. Makah Language Program, Makah Archives of the Makah Cultural & Research Center, Neah Bay, WA, United States.
- Claxton, Rae Ann. 2020. Ihwet tse' xwi'em'? hwi' 'een'thu tse'. How I learned to perform a Hul'q'umi'num' story. Simon Fraser University: Master's thesis.
- Daniels, Deanna. 2016. xwi'xwi'em': My Hul'q'umi'num' Storytelling Journey. University of Victoria: Master's project.
- Davidson, Matthew. 2002. *Studies in Southern Wakashan (Nootkan) Grammar*. State University of New York at Buffalo: Ph. D. dissertation.
- Dunlop, Britt, Suzanne Gessner, Tracey Herbert & Aliana Parker. 2018. *The Report on the status of B.C. First Nations languages 2018*, 3rd edn. First People's Cultural Council.
- Fitzgerald, Colleen & Joshua D. Hinson. 2013. 'littibaatoksali' 'We are working together': Perspectives on our Chickasaw tribal-academic collaboration. FEL Proceedings XVII (Ottawa, 2013) FEL XVII: Endangered Languages Beyond Boundaries: Community Connections, Collaborative Approaches, and Cross Disciplinary Research, 53–60. The Foundation for Endangered Languages.
- Hashimoto, Erin. 2024. Learning from Q^{wi}·q^{wi}·diččaq 'Makah' story: Collaborative analysis and emergent linguistic lessons. University of Victoria: Master's thesis. <https://hdl.handle.net/1828/20325>.
- Makah Research & Cultural Center. n.d. "Makah Language Program" <https://makahmuseum.com/departments/makah-language-program/> (May 5, 2024).
- Makah Cultural & Research Center (MCRC) (ed.). 1982. *The raven and the crow: A Makah story coloring book*. Makah Cultural & Research Center.
- Makah Elicitation with Mable Robertson and Nora Barker, 2014-21.001.045, in "William H. Jacobsen Materials on Indigenous Languages of North America", California Language Archive, Survey of California and Other Indian Languages, University of California, Berkeley, <http://cla.berkeley.edu/item/22943>.
- Noahedits. 2019. Detailed map of pre-contact distribution of the Wakashan languages. https://en.wikipedia.org/wiki/Wakashan_languages#/media/File:Wakashan_map.svg.
- Pascua, Maria. 2021. "Raven and Crow by Ruth Claplanhoo: Transcriptions and translations". Unpublished manuscript, last modified November 15, 2021. Microsoft Word file. MCRC.
- Pascua, Maria Hita·ʔa·ʔoʔ. 2020. *Using Q^{wi}·q^{wi}·diččaq 'Makah' in our community: A dialogue approach for adult learners*. University of Victoria: Master's project. <http://hdl.handle.net/1828/11875>.
- Pascua, Maria Hita·ʔa·ʔoʔ. n.d. *ʔapa·saps wala·yu·sis!* Makah Cultural & Research Center.
- Ward, Helma. n.d. *Wi·y ʔačut čibičibi· (Three Blind Mice)*. Makah Cultural & Research Center.
- Wilkie, Yvonne (storyteller), Ryan Houston (illustrator), Keely M. Parker (producer) & Jamie Beebe-Parker (designer). 2019. *The frogs that learned to say no*. Makah Cultural & Research Center.