Learning to Live Our Language

Zapotec Elders and Youth Fostering Intergenerational Dialogue through Cellphilms

Joshua Schwab-Cartas

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Department of Integrated Studies in Education
McGill University, Montreal

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Pur stinne' Bixozebida Gil Cartas Posada ne Jñaa Bida Lilia Cartas Guzman ne Toni ne Najeli ne binnilidxe Schwab ne Arias Cartas.

Abstract

Linguists estimate that approximately 90% of the world's languages will disappear before the end of this century (UNESCO, 2008, Harrison, 2007). Indigenous languages, such as the Isthmus Zapotec language—*Diidxazá*—spoken in my maternal grandfather's community of Union Hidalgo in Southern Mexican state of Oaxaca, are most at risk. According to the 2010 census of the National Institute of Statistics and Geography Mexico, of a population of 13,970 people, only 7,453 in Union Hidalgo spoke Zapotec, an alarming contrast to twenty years ago when our elders tell us that the entire community spoke Zapotec. Indigenous languages such as Diidxazá are rich repositories of thousands of years of accumulated knowledge that have developed from intimate relationships with a specific land-base and local ecology. They encompass: cultural rituals and practices; family lineages; and community, physical, and spiritual knowledge of wellness (First Peoples' Heritage, Language and Culture Council, 2010). If we are unable to engage new generations as active speakers, Diidxazá,—our language and way of life—is at risk of becoming extinct over the next two or three generations. Founding my approach on ancestral models of experiential learning from my community, I have developed, alongside my community, an approach that centres on youth and their use of technology in order to support the transfer of Zapotec language and culture from elders to the new generations.

My study examines how mobile technologies—specifically cellphilms (cellphone videos)—can facilitate intergenerational dialogue between youth and elders on ancestral language and cultural practices. As English and Spanish cultural productions become

more dominant in the global mediasphere, a more multifaceted approach that combines culture and technological elements offers productive possibilities for overcoming this increasing crisis of language loss. Accordingly my study is rooted in two distinct but complementary methodologies. The first is an Indigenous Oaxacan methodology/ practice known as *comunalidad* (Rendon-Monzón, 2003, Luna, 2010), which is a multi-voiced community process rooted in a commitment to strengthening the future of communal lifeways. In particular these lifeways reflect the values of our Zapotec ancestors and community and local Indigenous identity by asserting strategies of cultural praxis that do not perceive education in terms of formal classroom curriculum. Rather, they engage a cultural process of learning, when making tamales, planting corn crops or "doing" other embodied ancestral Zapotec practices. This *comunalidad* method was merged with a participatory cellphilm methodology in the form of a series of workshops adapting mobile technologies. Making and sharing videos about embodied ancestral Zapotec practices (i.e. making tamales) brought together elders and youth in an engaged learning practice. The results included a dialogue about how new technologies can inform the transfer of Indigenous ancestral knowledge, language and embodied practices in the 21st century, while continuing to find innovative ways to make relevant to our youth the teachings of our elders.

Résumé

Apprendre à vivre notre langue: Les aînés et les jeunes Zapotèques encouragent le dialogue intergénérationnel par le biais de Cellphilms

Les linguistes estiment qu'environ 90% des langues du monde vont disparaître d'ici la fin du siècle (UNESCO, 2008, Harrison, 2007). Les langues indigènes, telles que la langue Diidxazá de l'Isthme Zapotèque, parlée dans la communauté de mon grand-père maternel, Union Hidalgo, dans l'État d'Oaxaca, au sud du Mexique, sont les plus exposées. Selon le recensement de 2010 de l'Institut national de la statistique et de la géographie du Mexique, sur une population d'environ 13 970 habitants, seulement 7 453 habitants de l'Union Hidalgo parlaient le Zapotèque, un contraste alarmant par rapport à il y a vingt ans, lorsque nos aînés nous disaient que toute la communauté parlait le Zapotèque. Les langues autochtones telles que le diidxazá sont de riches répertoires de connaissances accumulées sur des milliers d'années, nées de relations intimes avec une base territoriale spécifique et une écologie locale. Ils englobent: les rituels et pratiques culturels; lignées familiales; et les connaissances communautaires, physiques et spirituelles du bien-être (Conseil du patrimoine, des langues et de la culture des Premiers peuples, 2010). Si nous ne pouvons pas engager les nouvelles générations en tant que locuteurs actifs, Diidxazá, notre langue et notre mode de vie, risquent de disparaître au cours des deux ou trois prochaines générations. Fondant mon approche sur des modèles ancestraux d'apprentissage par l'expérience de ma communauté, j'ai développé, aux côtés de ma communauté, une approche centrée sur les jeunes et leur

utilisation de la technologie afin de soutenir le transfert de la langue et de la culture Zapotèque des aînés aux nouvelles générations.

Mon étude examine comment les technologies mobiles, en particulier les cellphilms (vidéos sur téléphones portables), pouvant faciliter le dialogue intergénérationnel entre jeunes et aînés sur la langue et les pratiques culturelles ancestrales. Alors que les productions culturelles anglaises et espagnoles deviennent plus dominantes dans la médias globeaux, une approche plus multiforme combinant des éléments culturels et technologiques offre des possibilités productives pour surmonter cette crise croissante de la perte de la langue. En conséquence, mon étude repose sur deux méthodologies distinctes mais complémentaires. La premiere est une méthode / pratique autochtone a Oaxaca connue sous le nom de comunalidad (Rendon-Monzón, 2003, Luna, 2010), qui est un processus communautaire à plusieurs voix fondé sur un engagement à renforcer l'avenir des modes de vie communautaires. En particulier, ces modes de vie reflètent les valeurs de nos ancêtres zapotèques et de notre identité autochtone locale en affirmant des stratégies de praxis culturelles qui ne perçoivent pas l'éducation de manière formelle. Ils s'engagent plutôt dans un processus culturel d'apprentissage, lors de la fabrication de tamales, de la plantation de maïs ou de la pratique ancestrales Zapotèques. Cette méthode de communication a été fusionnée avec une méthodologie participative de cellphilm sous la forme d'une série d'ateliers d'adaptation des technologies mobiles. La création et le partage de vidéos sur les pratiques ancestrales Zapotèques incarnées (c'est-à-dire la fabrication de tamales) ont rassemblé des anciens et des jeunes dans le cadre d'une pratique d'apprentissage engagée. Les résultats ont inclus un dialogue sur la manière dont les nouvelles technologies peuvent informer le transfert des connaissances ancestrales autochtones, de la langue et des pratiques incarnées au 21ème siècle, tout en continuant à trouver des moyens novateurs de rendre pertinents pour nos jeunes les enseignements de nos aînés.

Contributions

This thesis is an original work by Joshua Schwab-Cartas. Parts of this thesis were previously published in the following articles:

1. Schwab-Cartas, J. (2018). Keeping Up with the Sun: Revitalizing Isthmus Zapotec and Ancestral Practices through Cellphilms. *Canadian Modern Language Review*, *74*(3), 363-387. doi: 10.3138/cmlr.4056

2. Schwab-Cartas, J. (2016). Living Our Language. In K. MacEntee, C. Burkholder, & J. Schwab-Cartas (Eds), *What's a Cellphilm? Integrating Mobile Technology into Visual Research and Activism* (pp. 51-65). Rotterdam, The Netherlands: Sense.

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Institutional Acknowledgements

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Glossary

Binnizá & Zapotec

Throughout this study I use these terms interchangeably and they are both used to refer to our Nation and people in our community. However, Binnizá is what our people refer to themselves as, which means "people of the clouds," while Zapotec, which is the more common term, is a term given to our people by the Mexica or Aztecs and is an exonym coming from Nahuatl *tzapotēcah* (singular *tzapotēcatl*), which means inhabitants of the place of *sapote*, the term for a soft, edible fruit commonly found in Mexico particularly in the state of Oaxaca. (Oudijk, 2000).

Cellphilm

The term cellphilm was first coined by Jonathan Dockney and Keyan Tomaselli (2009), who combined two words— cellphone + film—in order to mark the convergence of multiple communication technologies in one device. However, it was Claudia Mitchell and her colleagues Naydene de Lange and Relebohile Moletsane (2014) that envisaged it as an emerging and more sustainable participatory video practice that drew on local usage of equipment.

Digital Media

Digital media refers to audio, video, and photo content that has been encoded (digitally compressed). Encoding content involves converting audio and video input into a digital media file such as a Windows Media file. After digital media is encoded, it can be easily manipulated, distributed, and rendered (played) by computers, and is easily transmitted over computer networks.

Diidxazá/ Zapotec language

These are two terms that are used interchangeably throughout this study, but both refer to the language itself. Of course, the name of the language varies according to the geographical variant, so Diidxazá is the Isthmus variant (Pickett, 2010), which is spoken in the region including the community of Union Hidalgo.

Indigenous & Indigenous Peoples	The terms Indigenous and Indigenous peoples are used interchangeably and frequently in this study. The United Nations Special Rapporteur on Discrimination against Indigenous Populations, José Martínez Cobo (1982) , developed a working definition for use with the Working Group of Indigenous Populations: "Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems."
Isthmus of Tehuantepec/ El Istmo de Tehuantepec	Isthmus of Tehuantepec, Spanish Istmo de Tehuantepec, is an Isthmus in southern Mexico, between the Gulf of Campeche on the Gulf of Mexico to the north, and the Gulf of Tehuantepec on the Pacific Ocean to the south. This is the geographical location and context of Union Hidalgo and this project.
Language Learning	Language learning is adapted from the term language acquisition, which is defined as "the process of learning a native or a second language" (Tiwari, Mehta, & Patidar, 2008, p. 299).
Language Revitalization	Also known as language revival, or reversing language shift (Fishman, 1991), this refers to the "development of programs that result in re-establishing a language which has ceased being the language of communication in the speech community and bringing it back into full use in all walks of life" (Hinton & Hale, 2001, p. 5).
Mobile Technology	This includes electronic equipment such as mobile phones or small computers that can be used in different places, and the technology connected with them.

Maps of Union Hidalgo

Figure A. Union Hidalgo within the State of Oaxaca, Mexico
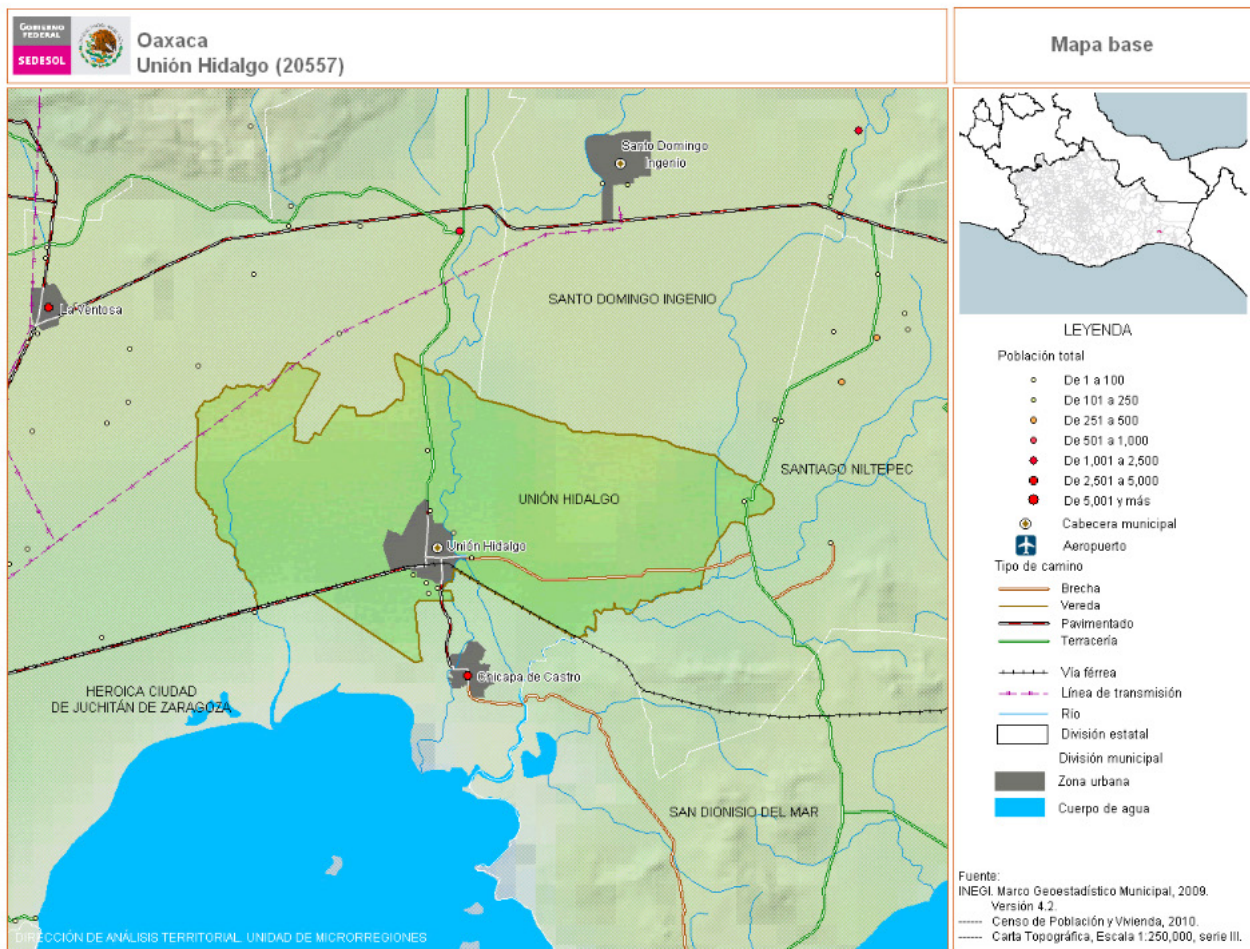
Figure B. Map of Union Hidalgo.

1

Situating Myself as a Researcher in an Insider/Outsider Project: A Lifetime Journey of Language Revitalization in Ranchu Gubina

Our own relationships with our environments, families, ancestors, ideas, and the cosmos around us shape who we are and how we will conduct our research. Good Indigenist research begins by describing and building on these relationships.

Wilson, 2007, p. 194

Hra bizuluni"[1]

Naa laaya Joshua Schwab Cartas ne jña guule ne biniizi Veracruz, Mexico ne bixoze guule ne biniizi Austria, Salzburg. Ne bixozegoola, Ta Gilberto Cartas Posada binni Ranchu Gubiña laabe ne Na Lilia Guzman Cartas laabee Ixtepec (San Geronimo) ne xtinne' binnilidxe Arias Cartas binni Ranchu Gubiña. Napa ti badu huiini la Najeli de chonna iza, bichaganaya Montreal ne

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[1]   Xquixhe pe lábe Rubicel Arias Ruiz for helping me translate this section.

xhelaa Antonia, biinda lídxiguendariziidi' stine McGill Montreal. Nua nee ca xpinni Binni Cubi racania laacabe para iizde diidxazá stinu ca guenda stinu ne gaanda usidecani xhiiñe, ne maa binnilidxe ne binni nagasi'. Naa guule ne biniize Vancouver, Canada, raca de ca primé binni nagasi' guule cherí ne qui gaapa ma binnilidxe, nua sía ne ca bixohse ne chupa bisaana.

Rietenaladxe diidxazá stinu dxi nahuine' napa bia gayu iza ne de bixozebida ne jñaa jñaa bida, canicabe diidxaza ra yóo. Laaca rietenaladxe xhiñé qui gaana ora laacabe ma canicabe diidxazà ne rietenaladxe guuxhe jñaa bida nàa qui riene diidxastia sti cabe, ne guuxhibe naa lacabe cadi canicabe diidxastia xhiiñe, canicabe diidxza. Laabe bisienebe naa ndi ti diidxa cadi ti dialectu, nga bichenda na. Gudxibe naa nuu ru binni de sti ladu runi despreciar diidxaza ne guenda stinu. Dxhi gunaa' nga gupa má diidxa xha ique. Xhila nga diidxazá? Jña bida gudxhi naa ndi nga diidxa stinu ca binniza ne ndinga diidxa stinu ca binnigula'sa' lanu raacanu binniza ndii oraque biêneni. Jña bida gudixi naa gúulebe Ixtepec, ne ñaabe guule Guie'ti (Ixtaltepec), ne bixozebida guule Ranchu Gubiña (Union Hidalgo). Ca binnilidxe guulenuu ne raaca nuu de Istmo de Tehuantepec.

Ca dxi riudu ne nuudu laacabe rinicabe ne laadu ca diidxa sica ca binni guenda diidxazà, Cosijoeza ne Donaji. Stiua' Bernabe Morales, uninebe laanu de ca binniza udindene ca Azteca guidxi Guiengola, ne ca xhu España ra guidxi Tehuantepec. Jña bida bisidi naa guune ca ma nanixhe guendaro raca xquidxinu sica mole yase, zee belabihui, guíiña doo bendabua, guchachi guíiña, ca ni maa biuladxi bixozebida ne naa laca.

Bixozebida biniisibe ne diidxazá ne de gayu iza ma unibe diidxastia, ne jña bida qui rini diidxazá peru rieneni purtí. Pur ndi Ta Jose Guzman, bixhòose jña bida qui nina níinibe diidxazá stinu, ne naabe iziidibe diidxastia para guixhiihuidxe gandecabe ti binni neza, ne láaca gudixbe jña bida ca binni stinu ora núu sti ladu xquidxinu rinícabe laanu purti rininu diidxazá ne cadi diidxastia. Jña bida laaca binni ndi ne cabe xhiñe bixozebida gupa gana nuu siidibe ira ca xhiñebe diidxazà. Peru jña bida, ca xhiñe záadxhcabe pa guinicabe diidxazá ne diidxastia ga dicho naacabe xquixinu. Ne jña biini ngueca na en irópa bizaana quininabe niside diidxazá sica biini cabe jña bida nabe ma galan izide sti diidxa iropa, sica Ingles o Aleman ne iquiñe para ora

ma chaa rati lídxiguenda. Nii canée ndi sedani de ca binni chiquee', para gaanda guudicabe ne gapacabe ti guendanabani' ma galan, ne para ca binnilidixicabe ne iráa cani gueda despue. Peru pur ndi biinitinuu caadxi, guenda binnizá stinu. Jña sica jña bida qui ñanda nisidicabe diidxazá peru bianaacabe ne nga, peru guendanaro' ziinecabe nga guulecabe lade ti binnliidxi binnizá. Rari'nga bica ique ximodo nga biiniti diidxazá di lu binnilidxe stine, raabe ximodo nga zanda aca Tecu pa ríene ne rine cadi huini si diidxaza? Nga ñaaca pa naa naale Ranchu Gubiña maa ñaana ne ninie diidxazá. Ni nanna' nga rialeladxe' zisaa chiñiá neza sti Bixozebida, zabane ne' diidxazá stiinu, peru zásideni ne ti gaanda inieni ne binnilidxe Ranchu Gubiña, ne laaca ganda usideni xhiñe Najeli sica ñúladxi Bixozebida Gil Cartas Posada.

Ti Neza cubi | A New Path

My lifelong journey of learning and reconnecting with our language and traditions was cemented during the undertaking of my Master's degree in Art History at the University of British Columbia (UBC) when I chose to concentrate on Isthmus Zapotec visual culture. My project focused on a document called the *Lienzo de Guevea and Petapa* (map of Guevea and Petapa), which illustrated a visual history of the migration from Oaxaca to the eventual settlement of the Isthmus by the Zapotecs, while also showing a dynastic line of Zapotec kings and rulers. Some of the kings illustrated were the same ones that my *bixozegoola* would tell me stories about as a child, such as Cosijoeza and Cosijopi, for example. Moreover, in 2004 I finally visited the Isthmus of Tehuantepec with my grandfather to visit my family in Union Hidalgo, and also commenced my research, which was to amass Zapotec oral histories about the Lienzo so as to create a Zapotec-centric interpretation of this visual document. It was during that visit that I would first meet and become lifelong friends with José Arenas Lopéz, who is not only the co-principal investigator of my cellphilm workshop project but is also the founder of Binni Cubi, a Zapotec cultural and media collective based in Union Hidalgo. As a collective, Binni Cubi is dedicated to fostering, promoting, celebrating,

and perpetuating Zapotec lifeways in all their forms, whether through language, music, or cultural practices such as tamale-making, for example. On that same trip I became a member of the Binni Cubi collective, which has now been going on for 16 years, and I have collaborated and even taken the lead on several projects, such as making documentary films and others that I will describe shortly. Moreover, this was a formative experience that allowed for the further enrichment of the teachings I had learned from my grandparents, and it also gave me an opportunity reconnect with my grandfather's community. In addition to renewing my relationship with my culture and community this also began in me a process of reflection on my positionality in what eventually would become my community, while also shaping and influencing both my scholarship and my perspective on Indigenous research.

Despite having a strong foundation for understanding our customs and sharing a common ancestry with people in the community, I was not naïve about the fact that I would not be immediately welcomed into it; my acceptance into my grandfather's community by no means came overnight. Issues such as my being Canadian or *del primer mundo* (first world citizen) and my having a multiethnic identity engendered certain assumptions about my character and my possible agenda, never mind my just not having grown up there and not being aware of the nuances of our culture that come with being raised there. As far as privilege goes, among Zapotecs I am not only light-skinned as a biracial Zapotec person, but my socioeconomic background and socio-geographical location have been factors that have given me a certain privilege that has allowed me to assimilate more easily into dominant society, to have more opportunities and to be more trusted. These crucial factors could only be addressed over time and by direct involvement with community projects. It took years to gain the trust of people in the community through my actions, such as supporting and participating in projects and donating my time to developing projects in our community such as establishing a community radio station, being a DJ for several months, respecting local protocol,

valuing my promises to people (which came from my grandparents' teachings) and honoring community traditions through my work with the collective. As a western-trained researcher, I possess knowledge that might be of value to our community, but I am also extremely careful not to assume that I know the answers or possess the best solutions for the community. Rather, my work is to continue to find ways to support the community according to their goals and agendas, while always continuing to listen and learn from my elders and other members of the community. It has been my 14 years of work and activism in my community that has grounded my scholarship and research in our community's needs and goals in such a way that I have been able to develop, alongside our community, research initiatives that truly address issues that matter to our people and community.

I began with a story to situate myself for several reasons. It is the way I best remember my late *bixozebida* who would always tell me stories about our history and about his memories of childhood in our community, and it was through stories that he would teach me life lessons, but also make me and our family laugh! "Stories remind us of who we are and of our belonging. Stories hold within them knowledges while simultaneously signifying relationships" (Kovach, 2009, p. 94). Stories have always played an important role in transmitting culture and linguistic knowledge in Zapotec and other Indigenous communities (Archibald, 2008; De La Cruz, 1984; Kovach, 2009), but stories also require the listener and teller to "think deeply and to reflect on our actions and reactions" (Archibald, 2001, p. 1). In this first section I also use a story format as part of continuing to ground my work and project in an Indigenous research paradigm, more specifically a Zapotec one, but it also allows me, as an Indigenous researcher, to situate myself in a way that allows the reader to know who I am, where I come from, and what the intentions and goals of my research are (see Wilson, 2008). And finally, the reader will have noticed that our language—Diidxazá—an endangered language has been placed in the forefront of this story as a way of honoring my

ancestors and elders who fought so hard to preserve it, but also the youth who are fighting to keep it alive. My choice to not translate the first section is done strategically to draw attention to all non-lingua francas which make up the majority of all the languages globally, but perhaps more importantly to give the reader a sense of how lonely and painful and exclusionary it is not to be able to speak your mother tongue.

What is Language?

Before I contextualize and elucidate on the research question of my project, I would like to attempt to define how I understand and use the term *language* throughout this project. Language is typically defined as a system of communication used by a particular country or community (Oxford, 2017), but most people, whether they are linguists or adolescents in a cellphilm workshop, feel that language is more than merely a system of communication. Why do we feel ownership of, or any personal affinity towards, for that matter, our own language, beyond its communicative value? This is because languages are valued beyond their communicative function. Language and/or dialects of languages are an intrinsic expression of culture and a fundamental aspect of cultural identity (Rovira, 2008). It is important to recognize that language is not a homogenous entity that is understood or held in the same esteem uniformly by individuals in any language community; it is this that makes the endeavor of language revitalization so complex. Language, therefore, as I, like many other scholars and language activists, would argue, is so much more than just an abstract structure or code and "is not a thing to be studied but (rather) a way of seeing, understanding and communicating about the world and each language user uses his or her language differently to do this" (Scarino & Liddicoat, 2009, p. 16). Unfortunately, languages have generally been constituted separately "outside and above human beings" (Yngve, 1996, p. 28) and to have little relationship to the ways in which people use language in their everyday discursive practices (García, 2009a). "Language [however] is truly a social

notion that cannot be defined without reference to its speaker and the context in which it is used" (Heller, 2007 quoted in García, 2009a, p. 377) It plays a crucial role in the acquisition, maintenance, and transmission of local knowledge, practices and customs, and the loss of Indigenous language coupled with the ever-expanding generational gaps between speakers has resulted in a significant weakening of Indigenous cultural practices and traditions. To grow up as a fluent user of a language is to inherit a way of seeing the world (Sarkar, 2009). In contrast to global languages such as English and Spanish, on the one hand, that have, over centuries, become standardized and delocalized in order to serve as national and global trade languages, Indigenous languages, on the other hand, continue to encode their own very local ontology rooted in practices and understandings related to everything from food gathering and processing to cosmovisions, from understandings of weather phenomena to animals, and from landscape to ethics in a particular place. Indigenous languages not only allow each cultural group to forge an identity rooted in a specific place, providing each speaker with a sense of belonging, but, more importantly, they grant speakers from these cultures an intimate knowledge embedded in that specific local environment wholly unique to themselves and that place. Language can be understood as the precious DNA that enables the survival of a people, encoding in sound, gesture, and structure, critical elements of what it is to live in a particular locality and environment. Therefore, instead of subscribing to the view of language as a system of communication used in different contexts, I draw, instead, on the view of language as a local practice as conceptualized by linguist Alastair Pennycook (2010). Pennycook rightfully asserts that to "look at language as a practice is to look at a language as an activity rather than a structure, as something we do rather than a system we draw on, as a material part of social and cultural life rather than an abstract entity" (Pennycook, 2010, p. 2). Pennycook furthered this point by quoting Pierre Bourdieu (1977) who "reminds [us] that practices are actions with a history, suggesting that we think in terms of language

practices [and] we need to account for both time and space, and history and location"
(Pennycook, 2010, p. 2). I draw on Bourdieu's and Pennycook's words and concepts
because in many ways they echo a Zapotec way of understanding our language. They
help me better elucidate what our/my elders have always taught us about Diidxazá and
learning and teaching it: language cannot be separated from *binnigula'sa* (ancestors),
binnigolanu (elders), *Layu* (the land), *Diidxa Hrui'Cabe* (our history), people, our gestures
or nonverbal extralinguistic language, our community, our environment, our social
and cultural activities, because our epistemology and way of seeing the world is
interconnected with language.

Learning and teaching is also indelibly rooted in our language, traditions, and
culture and vice versa, which is why many elders in our community hesitate at times
about teaching Diidxazá in classrooms, preferring locations such as in *milipa* (corn
fields), at the market or in any space where our language has always been and continues
to thrive because classrooms do not embody or embrace a Zapotec pedagogy, nor are
they structured in such a way that honors the interconnectedness of all things. Learning
Diidxazá through ancestral practices and elders' teachings connects us with our past,
our ancestors, and, as my grandfather once said, in elders and youth working together
we unite multiple worlds and times—past, present and future—and this speaks to the
importance of intergenerational connections.

As axiomatic as it may sound, children really are the deciding factor if our
ancestral practices are to continue to thrive or deteriorate. These, of course, also include
our language, which is a vital link through which these practices are understood and
expressed. Therefore, the continuity of any language and local practice requires several
factors, beginning with creating an environment or context that allows for the successful
intergenerational transmission of language and ancestral practices. Also, language and
local practices need to be adapted, as they have been in the past, to fit the present and
the everyday needs of Indigenous youth in the 21st century who are firmly entrenched

in the digital culture. This is perhaps why so many Indigenous communities concerned about securing the future of their distinct way of life are increasingly turning their attention to so-called modern solutions. Hawaiian linguist Candace Galla (2016) echoed this sentiment by stating that:

> in the twenty-first century, Indigenous languages no longer exist in isolation, but rather are supported by a multitude of technologies. Digital technology creates environments for language learners and speakers, allows for the creation and sharing of language materials, permits greater access to the language, and more importantly, expands the realm of communication. (p. 1144)

Motivation Behind the Study

The motivation for this study is based on observations that came from my many years of being active in our community, coupled with personal experience of language loss among my own friends and family, not to mention numerous intimate conversations with members of the community, both youth and elders. These conversations were critical to my understanding of the current state of Zapotec in our community because I was exposed to many different generational perspectives, all of which came with their unique and specific understanding of issues and factors surrounding and contributing to language attrition in our community, although I never conceived of language loss as a facile teleological equation of youth simply abandoning their autochthonous language and gravitating towards global languages, or our community sitting idly by losing the race against time watching the passing of our elders.

The motivation of this study is fourfold, beginning with addressing the fact that there is a lack if not a complete absence of community-specific and culturally relevant learning material available in the community, although the government has created and published poetry books and dictionaries. Most of these materials, according to my conversations with elders and youth, are seen as a step in the right

direction, but unfortunately many people still do not read Zapotec, which means that it is more of a symbolic gesture or artefact. Another major issue is that these materials are not targeting youth, are not being developed with them in mind and not alongside them in ways that can be made relevant to their lives as Zapotec youth growing up in a multimedia and multilingual environment. Therefore, many young people to whom I spoke do not find these materials very "interesting." The second motivation is to continue to expand and contribute to the literature and conversation on how technology can be and is being used as a means to revitalize Indigenous languages, such as our own Diidxazá. The third motivation came after several language learning and revitalization initiatives by our collective, such as creating CDs with bilingual (Zapotec/Spanish) jackets so that listeners can follow along while listening to the music, and documentary films with Spanish subtitles as well as more conventional approaches such as Zapotec classes. From each of these experiences I learned that we need to create an approach that is relevant to youth and that can sustain their interest while also finding ways for youth to connect with elders who are the knowledge holders in our community. Therefore, it was about drawing on those experiences and lessons learned to create an innovative and collaborative approach to language learning in our community that draws on elders' cultural and linguistic expertise, but is targeted at youth in drawing on a multimedia component so as to make it relevant to them. I realised that we need to sustain their interest though giving them confidence in that their skills are contributing to the process of making a cellphilm. The last motivation is more of personal one as someone who has experienced personal language loss through the passing of my grandfather, and who is also a Zapotec language learner who wants to be able to transmit our language and culture to my young daughter. All these factors have motivated my commitment to language revitalization as well as driven my urgency to find new methods and approaches to secure our Zapotec way of life and language for future generations.

Learning to Live Our Language: Overview of the Study

My inquiry explored how information and communication technologies such as cellphone video could be used as a culturally adaptable means to ensure the transfer and preservation of language and local practices. More specifically, I explored how the use of digital technologies in participatory video workshops (see Corbett, Singleton, & Muir, 2009; Milne, Mitchell, & de Lange, 2012; Mitchell, 2011; Mitchell, de Lange, & Moletsane, 2016; Schwab-Cartas, 2012; White, 2003) focused on language and traditional practice could bridge the generational gap of understanding between elders and youth, a gap that is currently the most significant barrier to language and cultural transfer to new generations of Indigenous people. While conventional approaches to language revitalization center on the documentation of elders' knowledge through recordings and use classroom-based and text-based curricula that emphasize grammar and structure, my project, with its use of the participatory cellphone video approach, actively engaged language learning in the lived context in which language acquisition occurs (Eira, 2007). This meant locating video documentation and language learning in the midst of making tamales, planting corn crops, and carrying out other traditional practices. Building on Indigenous models of experiential learning, the central question of my research was: How can emergent mobile technologies like smartphones and iPods be used to integrate traditional practices into the process of language transfer from elders to the new generation? These new technologies provide a captivating medium through the use of which elders and youth can learn from one another, and, through sharing a focus on audiovisual documentation of an ancestral practice, come together to understand each other's distinct generational experiences and address the disjuncture in their speaking community. By examining how this new alternative learning space, provided by a merging of technology and embodied ancestral practice, enables dialogue and understanding across the generations of an Indigenous community, my research findings support the design of more comprehensive approaches to revitalizing and

preserving ancestral languages in the future.

The research that I carried out for this study was based on a project in which I designed an approach to language revitalization using participatory video research methodologies (Corbett et al., 2009; Milne et al., 2012, Schwab-Cartas, 2012) that was firmly grounded in the Oaxacan Indigenous practice known as *comunalidad*, a multi-voiced community process rooted in a commitment to strengthening the future of communal lifeways and local Indigenous identity through praxis (Luna, 2010; Meyer, 2010; Rendon-Monzón, 2004). To carry out this work I conducted fieldwork in the Southern Mexican state of Oaxaca in the Zapotec community of Union Hidalgo also known known locally as Ranchu Gubiña in Zapotec, which is part of the Juchitán district in the west of the Isthmus of Tehuantepec region (see **FIGURE 1**). I conducted the research there for a total of six months over a two-year period, returning several times for varying lengths of time. The first visit to Union Hidalgo was in 2014 for approximately two months, a year before the initial project in 2015. This trip was, more than anything, a pre-consultation to determine the feasibility of using a cellphilm method, and, more significantly, to speak to community members of the proposed project for their input and feedback. During this visit, with José Arenas Lopez, founder of the Binni Cubi collective, long-time collaborator and co-PI for this project, I began brainstorming the parameters and objectives and goals of such a project as well as thinking of location sites and suitable elders. I returned again in 2015 for a three-month period to commence the workshop with José. During that time, one month was spent organizing and promoting the cellphilm workshop, while two months were dedicated to the cellphilm workshop itself. During that three-month period, youth ranging in age from 13 to 18 were paired with an elder whom they would shadow in order to learn and observe their ancestral practices, so as to both document the practice in the form of a cellphilm while also being exposed to the Zapotec language via an immersive experience. This visit was followed up by a third month-long trip which was a debriefing

in the form of a group screening followed by an *assemblea* or talking circle to reflect on the project and process of cellphilming. This trip was also necessary to help participants finish their cellphilms, either through editing or further consultation, and also to facilitate a screening which could not be carried out on the second visit because of the chikungunya epidemic, a virus transmitted by mosquitos to humans causing severe joint pain, fever and rash, that affected the entire community including all the participants, José, and me.

Organization of the Dissertation

This dissertation is divided into six chapters. In this **FIRST CHAPTER** I introduce myself as a biracial and bicultural Indigenous Zapotec researcher, activist, and father as a means of situating myself in relation to the research, but also to explain both my academic and personal motivations for deciding to pursue a project focusing on Zapotec language and cultural revitalization. In this chapter I also explain several key terms used throughout the dissertation, such as Zapotec or Binnizá, and ICTs (information communication technology) for example. In **CHAPTER TWO** I provide an overview of Zapotec history in general and, more specifically, of our community of Union Hidalgo, as well as of fundamental elements of the Zapotec language, such as its pre-Hispanic writing system, grammar, and its distinctive tonal pronunciation. Another key element discussed in this chapter includes the prevailing attitudes towards language in our community coupled with the introduction and application of United Nations Educational, Scientific and Cultural Organization's (UNESCO) 2003 *Language vitality and endangerment*, which outlines nine different factors that can be used to determine language vitality in an endangered language context, such as our community of Union Hidalgo. In **CHAPTER THREE** I offer an overview of the global crisis of language loss as well as the many approaches that are trying to address and even reverse it. This third chapter is divided into two parts; the first is a review of some of the most current literature on language loss and language revitalization approaches, while the second is an examination of the

how digital technology, such as mobile devices and their by-products such as learning apps, are being used to support Indigenous language revitalization. In **CHAPTER FOUR** I examine the complexities of being an insider/outsider researcher collaboratively creating knowledge and doing research in and with my own community. This chapter also discusses my history of working with Modesta Vicente, an 83-year-old elder from the community who inspired an innovative method of using technology as a means of documenting ancestral practices as well as a way of enticing youth in our community to learn our traditional language. Finally, this chapter introduces the participatory visual method of cellphilming and how it was combined with Na Modesta's approach to create a community and culturally relevant method of language revitalization. In **CHAPTER FIVE** I discuss the various phases involved in the cellphilm making workshop, from the pre-consultation phases which defined the objectives and goals and outlined the parameters of the workshop that ranged from how to honor elders when working with them, to possible implications of using mobile technology as a means of revitalizing language. The chapter also details the steps involved in planning, producing, screening, reflecting on, and discussing participants' cellphilms. In **CHAPTER SIX** I offer information about the participants as well as about my co-principal investigator. I offer my own reflections, impressions, and responses to the various phases and steps of the cellphilm workshop, such as working with elders to creating their own cellphilms, to name one. The chapter also provides a description of the cellphilms that were created by the participants, as well as a section I call "Taking Future Action! Giovanny, Edward and Orquidea," which is focused on three participants who were influenced by the workshop and continued to either produce cellphilms and/or to revitalize language and culture in their community after the workshop. Finally, in **CHAPTER SEVEN** I discuss the implications of the project in relation to the intergenerational knowledge transmission of language and culture via mobile devices and some of the outcomes for participants, the community, and academia. Moreover, the chapter reflects on the limitations of the project, and also

outlines collaborative and community-centered recommendations for future workshops in Union Hidalgo. These recommendations have engendered future directions in community language revitalization initiatives based on community-defined concerns such as focusing on younger speakers and concentrating on the home environment.

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Diidxa' Binnihualadxi Ne Xtiidxanu' | Our History, Our Language

We are the people of the clouds—the *binnizá*—and we have, as I will elucidate in this chapter, a rich, complex and at times brutal history, which has influenced not only how we see the world but has also affected in various ways the future of our Zapotec language in our communities. The chapter is divided into four sections. In the first section I map out a general history of the Zapotec people as well as provide an overview of the Zapotec language starting with its pre-Hispanic writing system to the present-day pronunciation and grammar of the Isthmus Zapotec language. The second section of this chapter, entitled Ranchu Gubiña (Unión Hidalgo)—*Ni bizaaca guidxi* (the history of our community) is a specific history of the genesis of our community intertwined with my personal family history, along with a consideration of the current complicated community attitudes towards our language and its future. Although there is no definitive threshold for determining a language as endangered, in the third section I introduce the reader to UNESCO's 2003 document entitled "Language Vitality and

Endangerment" that outlines nine factors for determining language vitality. I also apply these nine factors in an assessment of the current vitality of the Zapotec language, not in general, but specifically in our community. The final section of this chapter is both an explication of the importance of learning and perpetuating our ancestral language with a specific focus on youth in our community, and a plea to make this happen.

Why Zapotec? Binnizá History and Diidxazá (Isthmus Zapotec Language)

The reader may have noticed that throughout the introduction I have used two terms to refer to ourselves, Zapotec and Binnizá. I will continue to use them interchangeably. Why? For, you see, the people of the central valley of Oaxaca and Isthmus of Tehuantepec are generally referred to by the Nahuatl term Zapotec, though in our community we call ourselves *Binnizá*[2] while other Zapotec communities refer to themselves as Bene' xon or Ben'zaa (Gálvez Ruiz & Osorio, 2006), which means people who come from the clouds *binni* (people) and zá (clouds)[3] and is, subsequently, the most common or accepted understanding of our name according to my elders. The term

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[2] According to Binnizá scholar Victor De la Cruz(2013), *Binnizá* could have a more esoteric and sacred meaning, such as "los descendientes de la primera hija del lagarto sagrado (the descendents of the first daughter of the sacred lizard/crocodile)" which is based on his analysis of Friar Juan de Córdova's explanation in *Arte del Idioma Zapoteca* (1578), which documents specific terms used to designate order of birth. For example, the term *Zaa* according to the *piye* or the 260 day pre-Hispanic sacred calendar that was used to name individuals, which also coincides with the average length of human pregnancy (personal communication, Marvin Cohodas) was used to designate the first born daughter Zaa while the first day of the piye was *Chijlia* meaning lizard or crocodile. Therefore, De la Cruzargues the term binniza could alternatively mean descendants of the daughter of the sacred lizard/crocodile as opposed to the more common meaning which is the language of the people of the clouds.

[3] Based on a short reference by Fray Francisco de Burgoa (1989: II: 119: Chapter 53) the name (Binnizá) is generally translated as 'People of the Clouds' from binni (people/person) and Zá (clouds), which is very similar to the name of the Ñuu Dzavui that translates as 'People of the Clouds' (Oudijk,2000). As Michel Oudijk (2000) notes, oddly enough the Ñuu Dzavui received the Nahuatl name 'Mixteca' or 'People of the Clouds' while our people the Binnizá received the name 'Tzapoteca' the 'People of the Sapote'. Furthermore, Oudijk like other scholars, notes that it is still unknown as to why the Mexica endowed the Binnizá with the name. However, my elders do note that Zapote or Casimora is quite abundant in many of our communities.

Zapotec[4] comes from the Nahuatl (the lingua franca prior to and after the conquest) word, *zapotecatl,* which translates to the people of the *sapote,* "a native fruit of Mexico (*Casimiroa*)" (Oudjik, 2000, p. 9). However, the *binnizá* people have been called 'Zapotec' as if binnizá people are a homogenous group with fixed characteristics. Michel Oudijk (2000) rightfully acknowledges that the region in which the *binnizá* live is as diverse the people themselves. "It consists of the rugged mountain ranges of the Sierra Zapoteca, the steaming hot flat lands of the Isthmus of Tehuantepec, and the fertile river beds of the Valley of Oaxaca" (Oudijk 2000, p. 9). In fact, the state of Oaxaca is perhaps one of Mexico's and the world's most geographically and linguistically diverse areas—a "linguistic hotspot" with a long and complex history (Harrison, 2010, p. 87). The state of Oaxaca alone is home to fourteen Indigenous language families (Lewis et al., 2015) with Zapotec [450, 431] and Mixtec (Ñuu Dzavui) [476, 472][5] having the most numerous speakers (INALI, 2010). Despite the Zapotec macrolanguage boasting approximately 400,000 speakers in total, there are an estimated sixty different Zapotec language variants in existence, among them Isthmus Zapotec. This means that many Zapotec communities in Oaxaca speak their own Zapotec variant language (Lewis et al., 2015). The people and communities speak *rixhquei*[6] (Zapoteco Texmelucan), *dialó* (Zapoteco del la Sierra Sur, noroste alto), *tixh nguizë* (zapoteco de Asunción Tlacolulita), *dizhá* (zapoteco de Valles, del oeste central) and *Diidxazá* (zapoteco del Istmo) to name a

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[4]   It should be noted that people in our community and other neighboring Zapotec communities commonly refer to themselves as Zapoteco or simply as *tecos* (this term is specific to the communities of Juchitan, Union Hidalgo, and Chicapa de Castro) while people from Tehuantepec refer to themselves or are known as *Tehuanos.*

[5]   Determining actual numbers of speakers is incredibly difficult because, as Grenoble (2011) note, "figures for speaker counts almost always try to give the number of first-language speakers, and yet these numbers reflect self-reporting, not actual assessment. Because language is an integral part of identity, people who identify with a particular ethnolinguistic (or heritage) culture may claim knowledge of the language even if they are far from fluent. Alternatively, (Grenoble) notes that when people are repressed for their ethnicity, they may claim not to know that particular language for fear of retribution" (Grenoble, 2011, p. 29).

[6]   http://www.inali.gob.mx/clin-inali/html/l_zapoteco.html

few of the 60 variants.[7] It should be noted that many of these variants are as mutually incompatible as Mandarin and German at times, while others have more overlap. Moreover, Victor De la Cruz points out that the "'Zapotec language' is not one language with numerous dialects, as is often believed; it is multiple languages, as different among themselves as are the Romance languages" (as quoted in Frischmann, 2005, p. 20).

Diidxazá, Isthmus Zapotec, comes from *diidxa* (tongue, word, verb, or language) and za (clouds) or as Zapotec scholar, Victor De la Cruz (2013), suggests, may have a more mythological meaning, which I describe in a footnote above. Diidxazá and its continuity, the focus of this dissertation, is one of the six Indigenous languages (Chontal, Hauve, Nahua, Popoluca, Zoque, and Mixe) presently spoken in the Isthmus of Tehuantepec. "Isthmus Zapotec is by far the most numerically dominant today with an estimated 85,000 speakers" (de Korne, 2016, p. 23). Isthmus Zapotec is one of approximately 62 varieties that make up the Zapotec branch of the Oto-Manguean language family (Pérez Báez, 2011). The Oto-Manguean language family "comprises of the largest, most ancient of the historically related languages in Mesoamerica. The language family is notable for its size, age depth, internal diversity, and wide distribution" (Witschey & Brown, 2012, p. 334). It also stands out as the only language family in North America, Mesoamerica, and Central America whose members are fully tonal languages. Moreover, Mexican intellectual Miguel Covarrubias (1946) stated that "Zapotec is one of the most interesting languages spoken in Mexico" (p. 307). As Covarrubias notes, Zapotec possesses certain unusual features, such as an intricate grammar, like all Oto- Manguean languages and, in fact, many Indigenous languages, and it is verb based. The basic Isthmus Zapotec sentence structure is *verb-subject-*

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[7] "Linguistic classification in the region has been widely disputed. Linguists commonly accept the Zapotecan group to be comprised of six or seven distinct and mutually unintelligible languages, one of which is Isthmus Zapotec. Classification is further complicated when one considers the degree of splintering that has occurred on a dialectical level within the major branches. Isthmus Zapotec is varied not only between villages in the Isthmus, but several variations may occur within a single city, such as Juchitán" (Britton, 2003, pp. ix-x).

object (VSO), which "tells you of the world in motion interacting with humans and nature" (Cajete, 1999, as cited in Brown & Strega, 2015, p. 52). In contradistinction to a noun-based language, such as English or Spanish (Indo-European languages) "which accentuates an outcome orientation to the world" (Kovach, 2015, p. 52), Zapotec, like many Indigenous languages, is "generally aimed at describing 'happenings' rather than objects" (Littlebear, 2000, p. 2), which allows Indigenous people, as Leroy Littlebear has asserted, to transcend boundaries. What this means is that Zapotec does not make a distinction or create a binary opposition between female/male or animate/inanimate. Everything is more or less animate. For example, Zapotec "personal pronouns in the third person singular and plural differentiate between people, animals and objects" (Britton, 2004, p. 12). Leoroy Littlebear further elucidates that Indigenous languages in fact:

> allow for talking to trees and rocks, an allowance not accorded to English. If everything is animate, then everything has spirit and knowledge. If everything has spirit and knowledge, then all are like me. If all are like me, then all are my relations. (Littlebear, 2000, pp. 2-3)

In many ways, languages embody the thought structures of a society, so a verb-centered language creates a radically different worldview to a noun-based one according to Benjamin Lee Whorf (1956). Another distinctive feature of Isthmus Zapotec is that it has a unique way of forming phrases through the combination of various affixes (prefixes, suffixes, and some infixes), so, "one word can act as a simple sentence, as demonstrated with *rusiroobaxhaatabe* 'he aggrandizes too much' (*ru*, an indicative aspect prefix; *si*, an active voice infix; *rooba*, a verb root; *xhaata*, an adverbial infix; *be*, a subject suffix) (Britton, 2003, p. 7). The Zapotec language, in other words, is what linguists would consider agglutinative or polysynthetic (Britton, 2003; Radin, 1930). And finally, like

all Oto-Manguean languages, Zapotec is a tonal language[8], "in which the meaning of a word is often determined by the higher or lower pitch of the voice as in Chinese" (Covarrubias, 1946, p. 307). For example, take the word *benda*. Depending on the tone in the pronunciation of its syllables it has an array of meanings such as 'fish', 'her sister' and, if the e-syllable is extended (b*ee*nda) it can mean 'snake'. The array of tones employed coupled with glottal stops gives Zapotec, particularly Isthmus Zapotec, a staccato, yet musical character which, from my experience, many people despite not understanding it, comment on its pleasurable sound[9]. French ethnographer Brasseur de Bourbourg (1861), upon hearing Diidxazá throughout his travels of the Isthmus of Tehuantepec even referred to it as the Italian of the Americas. Moreover, Covarrubias (1946) rightfully notes that Zapotec is a rich and colorful language full of picturesque expressions and fine shades of meaning. For instance, *Da' bacaanda lua'* means I am sleepy, but the literal translation is there is sleep in my eye (personal communication with my relatives). The Zapotec numerical system is a duodecimal, rather like French, and the larger numbers are made up of multiples of twenty (*gánde*): forty is "twice twenty" (*chuapa late gande*), sixty is "three times twenty" (*xonna late gande*) and so forth (Covarrubias, 1946; Pickett, Black, & Cerqueda, 2001).

The Zapotec Written Tradition and Continued Resistance

Historically, Indigenous societies, such as the Zapotec peoples, have relied on the oral transmission of stories, histories, lessons, and other knowledge to maintain a historical record and perpetuate their cultures and identities. Scholars Eigenbrod and Hulan (2008) have observed that oral traditions are "the means by which knowledge is reproduced, preserved and conveyed from generation to generation. Oral traditions

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[8] Unlike Spanish or English, Zapotec is a tonal language with three pitches: low, high, and ascendant (the movement from a low to a high tone) (Sullivan, 2012, p. 2).

[9] See https://www.youtube.com/watch?v=N_PcdQvNHxE for an example of Diidxazá being sung by an elder, Carlos Sanchez Ruiz.

form the foundation of Aboriginal societies, connecting speaker and listener in communal experience and uniting past and present in memory" (p. 7). Oral- based knowledge systems are predominant among Indigenous people, including the Zapotec people, but this is not to say that Indigenous peoples did not have their own long-established writing systems, such as Cree syllabics or Cherokee syllabary for example. In fact, "one of the earliest and most enduring scribal traditions in Mesoamerica developed in the central valleys of Oaxaca" (Urcid, n.d., para. 1).

Seemingly a logo-syllabic system since its inception, ca 600 BCE, several lines of evidence strongly suggest that the script encoded an ancient version of the contemporary Zapotecan family of languages.[10] This logo-syllabic system of writing/ literacy, however, was taught only to the social elite and part of this education also included learning a sophisticated vigesimal (base 20) mathematics, astronomy, and architecture (Boone, 2000; de la Cruz, 2008; Urcid, 2005). This logo-syllabic script eventually gave way to what Mesoamerican art historians and linguists refer to semasiographic system of communication (also known as pictographic) (see Sampson, 1985), which conveys ideas independently from language and is on the same logical level as spoken language rather than being parasitic to it as is ordinary script (Boone, 2000). This mode of script arose with the rise of the Mexica or Aztec empire, which necessitated a mode of communication as the empire expanded across various linguistic communities and polities throughout Mesoamerica (Schwab-Cartas, 2009). And while there continues to be a debate about whether any pre-Hispanic Zapotec examples of codices have survived, this script continued for several years after the arrival of the Spanish conquistadors. One such Zapotec example is the "Lienzo de Guevea and Petapa", which was painted in 1540 in response to a Spanish order for land documentation (see Schwab-Cartas, 2009). Unfortunately, since this form of

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[10] http://www.famsi.org/zapotecwriting

writing was restricted to such a small minority of the population it also meant that it was transmitted only to a very small percentage of scribes, which is why this form of literacy eventually became extinct. Nevertheless, Zapotec people have "always fought to preserve their culture and language and to reconcile it with outside influences" (Sullivan, 2012, p. 42).

According to the 2015 census there are approximately 479 000 Zapotec speakers. Diidxazá Isthmus Zapotec is spoken by between 75 000 and 100 000 people. Moreover, Isthmus Zapotec is not only one of the oldest written languages in America (Sullivan, 2012) but, according to Mexican literary scholar Carlos Montemayor, it has the most important modern literary tradition of all the Indigenous languages of Mexico. "How could a language spoken by a relatively few people stake such a claim? Perhaps because Zapotec poetry express itself in a richly musical language, embraces other artistic traditions, and confronts the threat of globalization in its verses" (Sullivan, 2012, p. 1).

Despite how prolific the Zapotec literary tradition has been and continues to be, there has been no established homogenous writing system:

> Several attempts at orthographic coherence have been made in the last one hundred years not only within Isthmus Zapotec, but between the rest of the Zapotecan tongues and other Indigenous Mexican languages but the development of a homogenous Mexican orthography seems to have failed. (Britton, 2003, p. xii)

To return once again to Sullivan's question, it also had to do with the dramatic resurgence of Isthmus Zapotec intellectuals in the early 20th century, such as Andres Henestrosa, Victor de la Cruz, and, later on, Natalia Toledo and Victor Cata in the city of Juchitan. I will elaborate on this issue shortly.

Figure 2.1. A map illustrating the Isthmus of Tehuantepec.

The History of Isthmus of Tehuantepec

In the following section I offer an abridged account of both context and various seminal moments in Mexican history as they relate specifically to Indigenous peoples, specifically to the *binnizá* people. I also address how Indigenous peoples and culture have been constructed and represented in terms of specific agendas at different historical moments in Mexico's history since this will help elucidate how Indigenous peoples and education are interconnected discourses that have engendered many different educational initiatives in Mexican history (Tinajero & Englander, 2011).

Oaxaca is situated in South-Western Mexico, bordered by the states of Chiapas, Guerrero, Puebla, and Veracruz. "Oaxaca has 570 municipalities, more than any other

state in the country" (Altamirano-Jimenez, 2013, p. 180). According to Campbell and Binford (1993), of Oaxaca's 2.5 million inhabitants, about 900,000 speak one (or more) of the fifteen Indigenous languages and "[a]ccording to official data from the Consejo Nacional de Población (National Population Council, 2000), 48.8 percent of the population belong to one of the twenty-one Indigenous peoples inhabiting this state" (Altamirano-Jimenez, 2013, p. 180), making this the most culturally and linguistically diverse state in Mexico.

The Isthmus of Tehuantepec or what is known locally as "El Istmo" refers to the Pacific coastal plain, the "narrowest part of the land in southern Mexico between the Gulf of Mexico and the Pacific Ocean"(Altamirano-Jimenez, 2013, p. 180) and because of its vast natural resources and its being the commercial gateway to Veracruz, Guatemala, Campeche, and Havana it has, since pre-Hispanic times, been a much coveted locality (see Marquez, 2007). It is not clear exactly when the *binnizá* first occupied the Isthmus, nor are the circumstances of the occupation or migration fully understood, according to Binford and Campbell (1993). However, according to my elders and elders to whom I spoke in the communities of Guevea de Humboldt and Santiago Petapa, our *binnigula'sa* (ancestors) migrated from Lula (Oaxaca valley), sometime in the mid-fourteenth century, and, more specifically, from Zaachila[11] and displaced the Hauves, Zoques, Mixes, and Chontals from the prime agricultural lands in the region (see Schwab-Cartas, 2009). After gaining control of the Isthmus of Tehuantepec the famous *binnizá* king, Cosijoeza from Zaachila, established a new polity in Izii' (modern day Tehuantepec) "in the middle of centripetal forces" (Altamirano-Jimenez, 2013, p. 181). "In 1496, Zapotec-Mixtec (Ñuu Dzavui) forces defended the Isthmus against Mexica (Aztec) attackers from the venerable *Guiengola*[12] in a siege which lasted for 7 months" (Chiñas, 1973, p.

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[11]   Despite the vast collection of Spanish loanwords, modern Isthmus Zapotec still resembles Zaachila Zapotec more closely than any other variety (Britton, 2003, p. x).

[12]   Guiengola translates to large (ngola) rock (guie).

11). Tutino (1993) further notes that:

> After having demonstrated their power of resistance, the lords of Tehuantepec
> negotiated a dynastic union between the paramount lord of Guiengola and
> a Mexican noblewoman, creating an alliance of unequals that allowed the
> Mexicans free passage across the Isthmus while preserving Zapotec lordship
> over the peoples of the region in exchange for recognition of ultimate Mexican
> lordship. (Tutino, 1993, p. 44)

These skirmishes among the various polities in Mesoamerica would take an unprecedented turn a quarter century later with the beginning of the Spanish invasion in 1519.

Shortly after the conquest of Tenochtitlan, the Aztec capital, in 1521 by conquistador Hernan Cortés and his men, expeditions were sent out to continue to expand the newly founded colony of New Spain. Altamirano-Jimenez (2013) noted that as a newly established polity it became an adaptable society that maintained its political independence, and despite their pact with Mexicas (Aztecs) with whom they nevertheless remained enemies, Zapotec rulers allied themselves with Spanish colonizers to secure their territorial title in perpetuity. According to Zeitlin and Thomas (1992) having control over their lands allowed Isthmus Zapotec communities time to adapt gradually to the enormous impact of colonialism, but despite having time to adapt to these enormous changes, as de Korne (2016) aptly noted, it was "generally a time of hardship, including heavy tolls from new diseases, forced labour in *haciendas* and struggles to pay the tributes required by the colonial government" (p. 25). However, Binford and Campbell (1993) argued that these burdensome tributes demanded by the Spanish, coupled with continuous appropriation of lands and prized salt flats along the Pacific coast, resulted in vigorous armed rebellion on the part of the Isthmus Zapotec against the invaders (Spanish, and French colonialists) with the most forceful resistance in 1550, 1660, and 1715.

The Lasting Effects of Colonialism on Mexican-Indigenous Culture and Education

The conquest marks the beginning of 500 years (and counting) of Indigenous oppression and discrimination. The people were first manipulated into believing that they needed to abandon their language and culture to succeed in Mexican society (Lopez Gopar, 2007). Isthmus Zapotec scholar and intellectual Victor De la Cruz(1993) cogently asserted that the same measures applied as part of the unfolding politics of colonization are still used today as methods to force the "Castilianization" of Indigenous peoples in Mexico. Radoslav Hilúšek observed that the beginning of "the colonial period of Mexican history does not represent a twilight of native cultures and languages" based on the fact that "they were protected by the so called Laws of the Indies (Leyes de Indias) which defined their rights and duties" (Hilúšek, 2011, p. 78). Augsburger (2004) further notes that…

> Despite the desires of the Spanish crown, the extension of Spanish to all residents of the colonies was not feasible, nor desirable to the religious orders, for whom it was more practical to use Indigenous languages for evangelization and administration. (Augsburger, 2004, p. 14)

In fact, Augsburger (2004) noted that Nahuatl, the language of the former Mexica (Aztec) empire, and the Yucatec Maya language, because of their wide usage throughout the new colony, became secondary official languages used to interface between Indigenous populations and colonial authorities. During this early period of the colony of New Spain, Friars began to learn the autochthonous languages in order to proselytize and establish monasteries. During this period we see the production of various ethnographies, for example Friar Bernardo Sahagún's *The Florentine Codex: General History of the Things of New Spain* (1569) and dictionaries and grammars also known as *"artes."* "In the case of the Zapotecs this task was realized exemplarily by Friar Juan de Córdova with his *Arte del idioma Zapoteco* (Córdova, 1989 [original

1578] and *Vocabulario en lengua zapoteca* (Córdova, 1987b [original 1571]" (de la Cruz, 1993, p. 242). Unfortunately, as Hilúšek (2011) notes, this relatively liberal policy towards Indigenous languages was dramatically changed in the second half of the 18th century with the reforms of the Bourbon dynasty which forbade outright the use of Indigenous languages in any context, including for missionary or administrative purposes. Moreover, the introduction of formal education and alphabetic literacy allowed the Spanish to further symbolically denigrate Indigenous peoples' culture and language (Maldonado Alvarado, 2002). As a corollary, the "Indigenous population was considered illiterate, and their languages terms *dialectos*, lesser forms of communication" (de Korne, 2016, p. 26). As de Korne (2016) noted, all Indigenous cultural expression, whether linguistic or epistemological, for example, were accorded no social value, and Indigenous peoples themselves were positioned on the lowest rung of the colonial social hierarchy. "Zapotec languages, especially the Isthmus tongue were suppressed in favour of Spanish, and Zapotec was relegated to within the home for over three hundred years" (Britton, 2003, p. xi). Moreover, under Spanish colonial rule Indigenous identity was constructed in terms of a homogenizing universality, which rendered all inhabitants of New Spain under the erroneous and pejorative moniker of *Indios* (Indians) irrespective of the existing cultural, linguistic, and political diversity within Mesoamerica and in contradistinction to the Spanish themselves; this was of course a tactic employed to create and enforce social hierarchies. Mexican anthropologist Juan José Rendón Monzón (2004) further notes that the image of the docile yet brutish "Indian" was further reinforced among the Spanish with the advent of the first *Diccionario de la Real Academia Española* published between 1726 and 1736 with its official entry for *Indio* including the words docile, barbarian, and idiot to describe our ancestors. Unfortunately, the image of the culturally and racially inferior *Indio* promulgated by the Spaniards would be taken up and represented again at the beginning of the nineteenth century in the wake of Mexican independence.

Alas, the worst was still to come for Indigenous peoples and their languages in the next centuries because of the forced assimilative practices by Creole elites and Bourgeois of the next century in the creation of an independent Mexican nation. Rainer Hamel (2008) poignantly echoes these sentiments and notes that the century from independence to the Mexican Revolution was a time of devastating destruction of Indigenous organization and communities, a severe reduction of its population and the period during which Spanish became the dominant language in the republic, soaring to 83%. The CDI or the *Comisión Nacional para el Desarrollo de los Pueblos Indígenas* (the National Commission for the Development of Indigenous Peoples)[13] "reports that Indigenous people comprised 60% of the Mexican population according to the census of 1808, 38% in 1885 and 29% in 1921. We now know that this percentage hovers at just under 10%" (Cambronne, 2009, p. 6). Once Mexico became independent in the 19th century the newly formed liberal government of an Independent Mexico wanted to "bring equality" through the use of the Spanish language and the elimination of the term "Indian" to "unite" the nation. (Lopez Gopar, 2007, p. 161). The Mexican constitution recognized only one nation, the Mexican, and there were no longer "Indians" in Mexico, which meant that "national solidarity should be based on the same language (Spanish), the same religion, the same laws and political norms and on the same social habits for all the Mexican citizens"(Heath, 1972, p. 261 as cited in Lopez Gopar, 2007, p. 161). The image of the culturally and racially inferior "Indio" promulgated by the Spaniards would be re-inscribed and re-presented at the beginning of the 19th century in the wake of Mexican independence. The "Creole elites claimed as their own nationalist story of origin the history of the Aztec resistance to Spain, as a historical resistance to Spain that legitimized New Spain's struggle for independence

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[13] In 2018 the new president of Mexico Andres Lopez Obrador replaces the CDI with a new National Institute of Indigenous Peoples. https://www.elfinanciero.com.mx/transicion/amlo-anuncia-creacion-del-instituto-nacional-de-pueblo-indigenas-adelfo-regino-el-titular

from the crown" (Saldaña-Portillo, 2002, p. 291). The Mexican revolution brought about the construction of a new national identity based on the *mestizo* (a person of mixed race, more particularly in the Mexican context, having Indigenous (or African) and Spanish ancestors) as the new ideal prototypical citizen, "a symbiosis of two high cultures, the European and the Aztec-Mayan that Mexico inherited" (Hamel, 2008, p. 303). According to Hamel (2008) this new national identity allowed Mexico to "create distance and at the same time weave multiple alliances along a triple cultural and linguistic borderline to foster its own nationalism" (p. 303). This national *mestizo* identity was based on three factors according to Hamel: descending from "mystical indigenous identity founded in the high pre-Columbian indigenous civilization" (p. 303); being from the New World/ Americas; and, finally, being a speaker of Spanish. This new national ideology played a significant role in how language (cultural) policy was envisaged in Mexico, which meant that Indigenous peoples:

> were expected to give up (or transform) aspects of their culture in order to better function as modern Mexican citizens: become educated, channel funds into rational economic pursuits instead of the fiesta system, adopt modern farming techniques, and, of course learn Spanish. (Augsburger, 2004, p. 17)

de Korne (2016) noted that although the period of mandatory public schooling in Mexico began in 1867 with the *Ley de Instrucción Pública* (Law of Public Instruction) schooling was not truly enforced or made mandatory until the creation of the *Secretaría de Educación Pública* (Secretary of Public Education) in 1920, which "has perpetuated social inequalities and largely been a space that excludes Indigenous languages and socio cultural practices" (de Korne, 2016, p. 26). Early education policy, particularly its stance on Indigenous peoples and culture, is perhaps best encapsulated thus:

> Teaching them in their language contributes to the conservation of the native tongue, an idea which might seem beautiful and desirable to linguists and antiquarians, but [these native tongues] are a persistent and serious obstacle

to civilization and to the formation of the national soul. If we do not teach the Indian in his native tongue, he will find it necessary to learn Spanish… and to forget his native language. (Torres Quintero, 1913, as cited in Heath, 1972, p. 83)

From its genesis, the principal goal of the educational system was a forced *castellanización* agenda, which meant teaching Indigenous peoples only in Spanish with the hope that this would engender a more homogenous, monolingual, and harmonious and unified nation. But it resulted in shaming Indigenous peoples and degrading their culture, language, and history. In one word, the policy's aim was *linguicide,*[14] which Skutnabb-Kangas and Dunbar (2010) define as a "deliberate act committed with the intent to destroy the language" (p. 80). Moreover, this forced *castellanización*, coupled with the othering of Indigenous languages and cultures, continues to have profound and everlasting effects on Indigenous peoples. Additionally, this assimilative educational policy remained the norm for the better part of a century. Many elders, including my own grandparents, speak about the shame and residual effects that this refusal to perpetuate Zapotec had on their lives, and perhaps more particularly on their children's lives; these are affecting each new generation.

Following the revolution (1920) until about 1940, as King (1994) has noted, the focus of *indigenismo* (the Indian-directed government policy), was on reintegrating Indigenous people into the new Mexican nation through the development of various policies in the areas of educational, land and economic development to name a few. However, the concept of *indigenismo* is, in many ways, comparable to aspects of *orientalism* (Said, 1978) because both are "not an inert fact of nature, but a phenomenon constructed by generations of intellectuals, artists, commentators, writers, politicians

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[14] "Skutnabb-Kangas and Dunbar (2010) define linguicide in the context of cultural genocide which, based on Article III of the draft of the Genocide Convention, was excluded from the final text mainly because of opposition from Western countries such as Canada and the United States that argued that the inclusion of cultural genocide could prevent the assimilation of cultural or linguistic groups as well as give way to claims by Indigenous groupsow " (Zeyneloğlu, Sirkeci, & Civelek, 2016, p. 26).

and more importantly, constructed by naturalizing of a wide range of assumptions about the orient [and Indigenous people] and stereotypes" (Ashcroft, Griffiths, & Tiffin, 2000, p. 153). Under this radical wave of *indigenismo*, intellectuals sought to recuperate Indigenous dignity and identity through "viewing Indian subjectivity within a teleology of becoming more perfect citizens" (Saldaña-Portillo, 2002, p. 294), which meant becoming a *mestizo*. However, as Mexican anthropologist Bonfil (1996) cogently argued, *indigenismo* only attempts "to incorporate the Indian, that is de-Indianized him to make him lose his cultural and historical uniqueness" (p. 116). Moreover, the problem with *indigenismo* is that the so-called Indian difference and source of pride alluded to is still predicated on a generic Aztec-Mayan past, and, albeit modified from nineteenth century conceptualization, it still takes pride only in an Aztec-Mayan past not a *Binnizá* (Zapotec), *Ñuu Dzauvi* (Mixtec), *Ikoots* (Huave), *Wixáritari* (Huichol), *Xota Ndi'yajan* (Mazateco) past or present. This national rhetoric maintains that Indigenous peoples and our culture are not only an obstacle to modernity, thus justifying their ignoring of us, but it also means that under this discourse our traditions and worldviews will always remain in the past. "Indians may be Mexico's ideal ancestors, but mestizos are Mexico's ideal citizen" (Saldaña-Portillo, 2002, pp. 294–295). Rendón Monzón (2004) perfectly summarized[15] these historical issues:

> During colonization we were named and considered part of an inferior caste. Only recently have present-day Indigenous descendants of those 'conquered' by the Spaniards stopped being referred to pejoratively as being inferior. The revolutionary governments have, as well, taken it upon themselves to define Indigeneity: even though it may be defined generically and pretends to rid itself of the pejorative connotations, it still has connotations of contempt. The 'indigenas' have been objects of assimilation, of integration, of acculturation, or,

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[15]   This is my translation from Spanish to English.

at the very least, as objects of study. (Rendón Monzón, 2004, p. 40)

This is, of course, not to say that there was not staunch resistance to these oppressive national discourses and exoticizing constructions put forth by the *indigenismo* movement. Isthmus Zapotec poets, intellectuals, artists, and musicians have always rebelled against mainstream social conventions and discourses, have opposed the status quo and, instead, have celebrated and reaffirmed their Zapotec roots. In particular, the "Juchitecos—the Zapotecs of Juchitán—Oaxaca stand staunchly against the mainstream of modern Mexican society" (Tutino, 1993, p. 41). In fact, it was the Isthmus Zapotec during this period of *indigenismo* (early 20th century) that lead to an effective campaign to restore the public everyday use of Diidxazá (Isthmus Zapotec) in a very successful campaign that led to a noticeable resurgence of Diidxazá in the progressive city of Juchitan.[16] Here it is worth quoting John Tutino (1993) at length:

> Isthmus Zapotec people have always preserved a community that is proudly Zapotec, from local elite to the working majority; they continue to resist, with remarkable tenacity and notable successes, the encroaching powers of the centralizing Mexican State and the national culture it promotes; and they maintain a relatively prosperous provincial economy in which peasant subsistence production survives while commercial actives thrive, and in which women are important, publicly visible economic and social actors (Tutino, 1993, p. 41).

It is in this context that now famous Isthmus Zapotec intellectuals, writers, and poets, such as Andres Henestrosa Morales and Gabriel López Chiñas in the mid-1930s (1935-1939) founded and published a Diidxazá magazine called *Revista Neza* (Path) that was

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[16]   Victor De la Cruzgives an account where Arcadio G. Molina a Zapotec from San Blas Atempa was perhaps one of the forerunners in both the resistance against colonialism racist and oppressive policies and Zapotec language resurgence. In 1894 he was one of the first Isthmus Zapotec's to write a book not only in our language, but how to learn (speak, write and read zapotec). His book was entitled *El jazmín del Istmo. Principios generales para aprender a leer, escribir y hablar la lengua zapoteca, acompañados de un Vocabulario Español-Zapoteco y Zapoteco-Español* por Arcadio G. Molina.

dedicated to recovering and revaluing the Zapotec history, language, and culture from a specifically Zapotec perspective (Britton, 2005; de la Cruz, 1993; Pineda, 2012). *"Neza* was wildly successful and inspired later Isthmus Zapotecs to maintain the movement into the present; as a result, Isthmus Zapotec is spoken publicly once again" (Britton, 2005, p. xii). This inspired future critical movements such as *Coalición Obrera Campesina Estudiantil del Istmo* (*COCEI*) (Worker-Peasant-Student Coalition of the Isthmus of Tehuantepec) which was founded in 1974, and important publications, such as *Neza Cubi* (New Path) and *Guchachi Reza* (Sliced Iguana) to more contemporary ones such as *Guidxizá* (Patria Zapoteca or Zapotec homeland). And undoubtedly these movements laid the foundation for collectives like our own *Binni Cubi*.

"Post-revolutionary governments were aware of the failure of the integration efforts and therefore changed the official policy towards native people" (Hilúšek, 2011, p. 79). I would argue that this was because of movements and publications such as those mentioned above, among many other autonomous Indigenous movements in Mexico at the time. Despite the Mexican government of the period changing its policy towards Indigenous people, it did not entirely abandon its proclivity towards the ultimate goal of a unified Spanish-speaking Mexican nation. This government, not unlike the last one, did not abandon the idea of glorified pre-Hispanic past in which Indigenous people may be Mexico's ideal ancestors, but held the idea that *mestizos* are Mexico's ideal citizen and a sign of progress (Saldaña-Portillo, 2002). During this period (1948) *Instituto Nacional Indigenista* (*INI*) (The National Indigenist Institute) was headed by Mexican anthropologists such as Alfonso Caso, and, later, Gonzalo Aguirre Beltrán. The creation of the Institute was an important sign of the Mexican government's attempt to try, finally, to integrate Indigenous peoples into mainstream society. Through this institution educational platforms were developed that included the training of educators in Indigenous languages in order, as they put it, to "better serve" and educate Indigenous populations. But the mastering of Indigenous languages by educators was

not meant to enable them to teach Indigenous peoples in their own right, but, rather, to "teach them Spanish and thus familiarize them with the culture and ideology of the Mexican nation" (Hilúšek, 2011, p. 79). This new policy and approach were so effective, according to Hilúšek (2011), that Indigenous peoples went from being monolingual speakers in autochthonous languages to creating a generation of bilingual speakers and then, in turn, eventually transforming Indigenous bilingual speakers into monolingual Spanish speakers in the course of a few generations.

Mexican Indigenous rights activist and scholar Sylvia Marcos wrote that "[being] Indian, showing signs of this identity (that is, speaking an indigenous language and acting following Indian customs) was, and to a large extent still is, a sign of 'backwardness' and 'ignorance' and a reason for shame" (Marcos, 2005, as cited in Cambronne, 2012, p. 9). It was not until the beginning of the 1990s that the Mexican government finally took observable steps towards shifting the official policy towards Indigenous peoples, language, and education. During this epoch the discourse of multiculturalism began to emerge for the first time in Mexico, which then began to challenge the once-held notion of a united *mestizo* nation, so much so that in 1992 Mexico modified its constitution, declaring itself a pluricultural nation made up of not only *mestizo*s, but of Indigenous peoples as well. Furthermore, respect, as Cambronne (2012) notes was finally demanded in 1994 with the Indigenous Zapatista National liberation Army upsurge following the signing of the North American Free Trade Agreement (NAFTA) which fundamentally changed Indigenous rights to land. "The Zapatista movement, however, let the world know that despite these constitutional reforms, Indigenous people were still oppressed and discriminated against" (López Gopar, 2007, p. 162).

The impact of movements such as the Zapatistas, which drew attention to the fact that Mexico was in fact a multicultural and multilingual nation, cannot be underestimated in terms of the impact it had in the new millennium on Indigenous

education. The political discourse in the new millennium, according to Hamel (2000), emphasized an intercultural and bilingual approach to education, which saw these factors not as impediments or problems that needed to be corrected, but rather as elements that needed to be celebrated and even encouraged. During this time two major federal institutions were created in response to this new discourse of diversity or plurality. The first was the General Coordination of Intercultural and Bilingual Education,[17] which was "created to respond to the very low attainment of Indigenous students in Mexico" (Garcia & Velasco, 2012, p. 3). In 2003 the National Institute of Indigenous Languages,[18] a federal public agency whose main aim is to find a way to both promote and protect Indigenous languages and cultures in Mexico through various events and publications, was established. Both these institutions were created in an attempt to integrate Indigenous peoples into the national mainstream (Garcia & Velasco, 2012), but also to ensure the applicability of the Law of Indigenous Peoples' Linguistic Rights. Article 9 of this law says that "all Mexicans have the right to communicate in their mother tongue, without restrictions, in public or in private, written or spoken, in all social, economic, political, cultural, religious or any other kind of activity" (Cambronne, 2012, p. 8). Despite the Mexican government's reformist efforts towards Indigenous education in the new millennium, many activists and scholars would argue that these reforms "cannot make up for years of neglect and for the lack of political participation and empowerment of Indigenous peoples" (Garcia & Velasco, 2012, p. 2). Some scholars such as Hilúšek (2011) have even argued that it seems too late to revitalize or even preserve Indigenous languages in Mexico because of the supremacy of the Spanish language in Mexico. I agree with Hilúšek in terms of the difficulty that the Spanish language and other global languages pose for Indigenous languages in Mexico, but unlike Hilúšek I do believe much can still be done to support

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[17]   http://eib.sep.gob.mx
[18]   http://inali.gob.mx

Indigenous languages and cultures. However, this advocacy has to be focused not on government policy but, rather, on local policy and autonomous efforts, which are a vital part of this cellphilm project. It is within this spirit and context of autonomy that our media collective Binni Cubi has been working tirelessly for the last 16 years to preserve and revitalize Diidxazá, our language.

Figure 2.2. Union Hidalgo within a North American map.

Ranchu Gubiña (Unión Hidalgo)
Ni bizaaca guidxi | The History of Our Community

Unión Hidalgo is the birthplace of my great great great grandfather, great great grandfather, great grandfather, and my grandfather, *bixozebida* Gilberto Cartas. Our family, the Cartas-Arias, have been there since its foundation in 1850. I am the grandson of Gilberto Cartas Posada, who is the son of José "Checu" Cartas Martinez, who brought water and electricity to our community. He was the son of Euphemio Cartas Morales who was the first person in our community to earn a university degree and used it to teach. He was also the first telegrapher in our community.

This genealogical introduction is customary when introducing yourself to someone in our community or when entering our community because it allows the person(s) to draw personal connections with your family. Allowing them to situate you in a complex web of genealogical relations enables them to establish the direct lineage to the people who brought you into this world, but it is also about honoring your elders as well as the pueblo that your family is from. In many ways our family names continue to carry a particular history within our community and our actions continue to be judged in relation to past actions of our elders and ancestors. It is also about perpetuating community and collectivity since, as a collectivist culture, we value the whole and the relations over the individual, which is why we use such introductions.

Unión Hidalgo, better known locally as Ranchu Gubiña,[19] is a moderate-sized mainly *binnizá* community[20] in the Isthmus of Tehuantepec and, unlike major Zapotec

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[19] There are several meanings such as the ranch of hunger or ranch of the poor, which according to my elders is most likely an interpretation imposed onto our community by some other community as a means to mock or ridicule our community. My elders tell me that this is incorrect and that the name should be *Ranchu Uviña* which translates to the ranch of Uviña, a plant that was harvested for its sap and used as natural adhesive and was very abundant in our community. However, over time the U became a G for some odd reason.

[20] There are also *Ikoots* (Huave), *Zoque*, Afro-Indigenous and *mestizo* inhabitants from other parts of Mexico.

cities like Juchitan and Tehuantepec, it is a fairly young community. It is, however, one of the larger Zapotec communities in Isthmus with approximately 15 000 inhabitants according to the 2015 census by *Instituto Nacional de Estadística y Geografía (INEGI)* (National Institute of Statistics and Geography). It is one of the 22 municipalities of Juchitán district. The Isthmus of Tehuantepec has a total of 41 municipalities, which are divided into two districts, Juchitan, which has 22 municipalities, and Tehuantepec, which has 19. It is located roughly 35 km from Juchitán city and its boundary to the north and west is Juchitán, to the south is *Laguna Superior* (Superior Lagoon), and to the east is San Dionisio del Mar (*Ikoots* community).

There is some evidence in the form of archaeological mounds and small clay figurines that were found by *campesinos* (agriculturalists) in their *milpas* (cornfields) that the territory on which our community is situated was inhabited during pre-Hispanic times. The clay figurines were analyzed by archeologists and specialists from *Instituto Nacional de Antropología e Historia* (*INHA*) who determined that they belonged to the Olmec people. However, dating from the preclassic period (2500 B.C.E–C.E. 300) to the postclassic (C.E 950–1521), there are objects belonging to the cultures that were already settled in the region, Zapotec, Zoques, and Huaves. In other words, the region (and not specifically the territory of our community) was populated from the preclassic to the present, which is 2,500 B.C.E to date. However, there is currently no evidence that there has been any cultural continuity of Zapotec people in our community since pre-Hispanic times; this coincides with our oral histories that say that our people migrated from the Valley of Oaxaca during the early 14th century.

There are conflicting accounts as to when exactly our community was founded. According to the elders and community scholars the foundation of our community was somewhere between 1850 and 1882 (Marín, 1975; Sánchez, 2002; Sandoval, 2004; Toledo, 2011). However, my elders recount that by 1850 there were already a few established ranches, and this is corroborated by Zapotec linguist Rodriguez Toledo's

(2011) research. The foundation of our community came at a tempestuous time in Mexican history; it not only coincided with the fall of Maximilian's empire, but occurred at the beginning of the Porfiriato era. This epoch, a major transition in Mexican politics and history, was named after army general Porfirio Díaz (José De la CruzPorfirio Díaz Mori) who held power as president of Mexico almost continuously for three and a half decades from 1876 to 1911. Díaz promoted progress and order but also oversaw foreign investment from Britain and the United States. According to what is known through historical documents and local oral history, our pueblo was founded by families from Juchitán in the early 19th century and was called Ranchu Gubiña. The name Ranchu Gubiña has, as mentioned earlier, several meanings, such as palm, but was referred to as the ranch of the poor apparently because of the precarious nature of living in a newly founded town. However, there has never been evidence of this considering that the community has always been quite prosperous in agricultural and animal husbandry practices. Moreover, Sánchez (2002) has also noted that the territory where Ranchu Gubiña was founded at the time was abundant in a variety of flora and fauna, such as *bidxiiña* (deer), *biihui guiihi* (wild boar), *ngúupi* (armadillo), *guchachi'* (iguana), *ca yaga* (trees for lumber such as the *huanacaxtle* used in a variety of ways such as furniture-making), *gulabere uviña*, a natural adhesive (and also the namesake of our community according to some elders). However, Sánchez (2002) argued that it is this same abundance of flora and fauna coupled with the lack of ways to develop the community, that made the newcomers feel a sense of poverty that prompted them to refer to the community as the ranch of the poor ones,[21] an assertion and title with which many of my elders strongly disagree. According to them, and to oral history and other historical sources (Sandoval, 2004; Toledo, 2011) in 1882 there was ongoing conflict between the two Juchitan families who founded the first rancheria, which resulted in the rancheria

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[21] "Poor" here may not refer as much to being poverty-stricken as being unfortunate, given the arduous task these people had to face.

being divided into two parts—Ranchu Gubiña Guía (Rancho Gubiña Norte) and Ranchu Gubiña Guete' (Rancho Gubiña Sur). Over time new immigrants in search of better lands to cultivate settled and established three more ranches or boroughs, *el Zapotal*, *Rincón Sombrero*, and *la Palma*. In total there were five ranches or boroughs made up of mostly Zapotecs from Juchitán while others, according to Sandoval (2004), may have been from present day *La Venta*, another Zapotec community. There were also Afro-Mexican, Zoque, Ikoots (Hauve) and Spanish inhabitants (Sandoval, 2004). In 1882, Francisco León Hernández, named political chief of the district of Juchitán by General Porfirio Díaz, considered it convenient to unite all *rancherías* and establish a single nucleus of population. He tried to convince the different settlers, but he did not succeed. Before his request was refused, he ordered the burning of the *rancherías* and forced their inhabitants to abandon them and to concentrate solely on Ranchu Gubiña Guiaá, and to form a single village called Union Hidalgo—Union because of the unification of the different *rancherías* and Hidalgo to honor the father of the country, Don Miguel Hidalgo. After uniting the *rancherías* León saw this as an opportunity to create a model town and appointed civil engineer Nemesio C. Rementeria to design and plan Union Hidalgo. He would eventually attempt to reflect this vision through the perfectly symmetrical plan of the town; Rementeria designed the streets to be the same width and length from North to South and from East to West. I mention this here because this city plan has always been a source of pride to the community. In 1886 the community of Union Hidalgo, because of its rapid population growth that year, was officially deemed a township. Divorcing itself politically from Juchitan, it constituted itself as a free municipality and, in that same year the town launched its first call to elect its municipal president.

Ranchu Gubiña is an average sized town and like many smaller Indigenous Zapotec villages in the region one will see streets lined with fruit trees, such as mangoes, starfruit, and lime, to name a few, while the occasional street dog will

bark lazily at any passerby. Children and young people can be seen in the evening playing in the center of town along with young couples holding hands as they circle the perimeter. As the sun begins to go down a cacophony of cawing from a murder of crows is emitted as people view YouTube in internet cafes and women, wearing brightly colored *traje* made up of a *bidanni'* (*huipil*, or Indigenous embroidered blouse) and long flowing *bizuudi* (*enagua* or skirts) work and sell in the market, while men are typically seen wearing palm sombreros and *guelaguiidi* (handmade leather sandals) typically coming home after an early morning start in the hra shie' (cornfield). In Ranchu Gubiña, like many Indigenous campesino communities, many household economies are sustained (including by my family) by the cultivation and processing of corn, beans, squash, melons, and watermelon as well as animal husbandry including raising cattle, goats, sheep, horses, and poultry. Fishing and shrimping are also of great economic importance in our community, as well as the art of weaving palm and embroidering traje. There is a gendered division of labor between the sexes in Ranchu Gubiña: embroidery and chicken tending are typically associated with women's labor while men work the milpa (the corn fields) and carry out agricultural work. Women process the corn and any other products that they then sell in the market or in their homes. Palm tree leaf weaving is an activity done by both women and men. However, as my grandmother and aunt have always noted, and I have seen firsthand, women's work in the house and outside the house never ends. For example, almost every woman above the age of 50 makes *totopos* (a wood burning oven baked *tortilla*) and *aguas* (fruit juices) as they care for multiple children and grandchildren, even great grandchildren in some cases, while also helping their neighbors or family members to make tamales for a fiesta or a wake, which is part of what we refer to as *guendalisa* (mutual help) among women and men in the community. It is rare, according to my grandmother who, as a young woman, used to make *totopos* herself, for a household not to have at least one woman who regularly processes and sells something at the market. Women's work is

often overlooked and even undervalued by men in our community. Outsiders, such as anthropologists, ethnologists, and even western feminists, continue to perpetuate the image of the "Isthmus, strong, burly women (who) are portrayed as controlling their weak, dependent husbands who must ask their wives for beer money when they wish to go drinking and lean on their broad shoulders for support as they drunkenly weave their way home from fiestas" (Campbell et al., 1993, p. 113) an image first popularized by Mexican anthropologist Miguel Covarrubias in his celebrated work *Mexico South: The Isthmus of Tehuantepec* (1946)[22]. These are harmful constructions that serve only to obscure and also normalize rampant machismo, alcoholism, and domestic abuse and further help to perpetuate yet another construction of what are believed to be primitive drunk 'Indians', while also constructing and furthering a rather facile picture of gender in our communities, which is complex. While machismo, a product of colonialism and western patriarchal norms, does exist in our communities and results in culturally based inequalities, it exists alongside other Zapotec gender norms based in complementarity. In the case of the household economy, for example, it is clear that no gendered activity is more valuable than another. Rather, they complement one another so women, like men, can sustain a family on their own if need be. This is, of course, is a very brief snapshot of the complex issues surrounding gender, labor roles, and other related issues in my community and much more could (and should) be written. Moreover, it should also be noted that many of the labor activities mentioned above are no longer practices undertaken by the younger generation. For example, it is as rare to see a young man working the fields alongside his father and uncle as it is for a young woman to be making *totopos*. This means that many of these practices are ceasing to exist, so after an elder with particular knowledge of the practice passes away, they take

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[22] This has of course led to constructions of the Isthmus being a matriarchy run by Amazons. Documentary filmmaker Maureen Gosling addresses these constructions in her documentary Ramo de Fuego or Blossoms of Fire. http://www.maureengosling.com/ramo/about/about.html

with them cultural and esoteric knowledge as well as language expertise (Evans, 2011). The knowledge of how to make a pre-Hispanic drink called *Bupu* (foam) was lost in our community this way.

The Vitality of Diidxazá (Zapotec) in Ranchu Gubiña and Community Attitudes

On my last visit I seldom heard the voices of our young people uttering our language, Diidxazá. It is hard not to mind that a particular phrase may never be uttered by my daughter or her generation in our community, particularly when my grandparents recount the outright abuse (both physical and psychological) meted out to them in their youth for speaking our language in public, but I often think about the fact that our language is as old as time itself, and that being able to utter a simple phrase today is thanks to the fact that our ancestors always found ways in spite of extreme repression to keep our language alive. By speaking our language, even just learning to say a couple phrases or words, we are celebrating who we are as a people, and we are celebrating the resistance against attempts by the Spanish, French, and the Mexican state to control and assimilate us. We can proudly say that we are still here.

Many linguists or community language activists will argue that there is no single factor like, for example, colonialism, capitalism, or globalization that has led to the rapid decline and loss of Indigenous languages. Rather, there are many historical factors responsible for this (see: Crystal, 2000; Grenoble & Whaley, 2006). Similarly, there is no one factor that can be used to assess a language's vitality or its need for documentation (UNESCO, 2003). Assessing the degree to which a language has shifted or declined "invariably entails determining and applying a range of largely quantifiable sociolinguistic variables, such as the number and age of speakers, or whether there is a writing system, educational materials, or media in the language" (Dwyer, 2011, p. 1). There are various assessment schemas that have been developed over the years. See,

for example Giles, Bourhis and Taylor (1977) who emphasized the importance of the transmission of language in the home. The most influential assessment instrument is probably Joshua Fishman's (1991) Graded Intergenerational Disruption Scale and the "nine factors" listed by UNESCO (2003).

I have chosen to use this UNESCO (2003) scale developed by a panel of experts in 2003, which included not only linguists and NGOs, but, more importantly, Indigenous speakers whose community was affected by this loss of language; it was this that drew me to using this framework. In addition to this, as Lewis and Simons (2010) noted, in contrast to Fishman's framework the UNESCO scale provides a more nuanced set of categories at its critical end. Having looked at various different scales and frameworks this scale seemed to me to best mirror the current situation in our community. It also allowed me to look at various factors in more detail.

The UNESCO scale details a set of determining factors that could be adapted to a variety of contexts. It can be used by members of the speaking community and by outsiders, such as linguists, to evaluate the vitality of a language under consideration (Dwyer, 2011). This framework identifies nine core factors, which include: **(1)** intergenerational language transmission,[23] **(2)** absolute number of speakers, **(3)** proportion of speakers within the total population, **(4)** loss of existing language domains, **(5)** response to new domains and media, **(6)** material for language education and literacy, **(7)** governmental and institutional language attitudes and policies, including official language status and use, **(8)** community members' attitudes towards their own language, and **(9)** the amount and quality of documentation. These factors are then applied to the language in question and each factor is graded from 5 to 0, where 5 refers to safe while 0 signifies extinct. "Note that *none of these factors should be used alone*" (UNESCO, 2003, p. 7 emphasis in the original).

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[23]   This is perhaps the most crucial element that was noted by Fishman and included in all frameworks and scales determining language vitality.

Ranchu Gubiña, like so many Indigenous communities around the globe, is witnessing the decline of our autochthonous language at an unprecedented rate. According to a census conducted in the community by National Institute of Statistics and Geography (INEGI) in 2010, of a total population of 13, 970 people, only 7,467 spoke an Indigenous language, a downward trend that has continued to the present. The abandonment of ancestral culture by young people has resulted in a severe cultural disjuncture across generations, thus further hindering the younger generation's ability to connect to ancestral traditions and elders' teachings and seriously jeopardizing the continuation of our Zapotec language, Diidxazá. The indigenous languages currently spoken in the community are Zapotec and *Ombeayiiüts* (Huave),[24] but Spanish and, increasingly, English language practices are central features of the everyday sociolinguistic environment. The presence of these different global languages has led many young people in Union Hidalgo to use and blend various combinations of these languages concurrently in their daily lives, a practice that scholars have referred to as translanguaging (Garcia, 2009a, 2009b). Elders understandably often have a hard time recognizing the value of translanguaging practices (to which I will return presently) for youth or the way in which this hybridizing enables them to acquire their ancestral language in a multilingual context. The 2010 INEGI census mentioned above put Indigenous speakers at about 58% of the community, an alarming contrast to thirty years ago when our elders tell us that almost the entire community spoke either Zapotec or Huave. In a little over one generation our community has lost almost half its fluent speakers. This loss is accelerating only because the younger generation of Zapotecs, as I have witnessed firsthand, are increasingly moving to Spanish since it is the dominant language of Latino culture on the internet and television. The potential disappearance of our language is therefore of major concern to our community.

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[24]   There are very few people who speak *ombeayiiüts* or *Huave* in our community.

While our community is facing this crisis of language loss, the precise degree of endangerment of the Isthmus Zapotec language across the entire Isthmus region is still a matter of debate. According to the Summer Institute of Language's 17th web edition of the "Ethnologue: Languages of the World" (2013), the institute's statistics place the status of our language, classified as Diidxazá or Zai, as "developing," which means that "the language is in vigorous use, with literature in a standardized form being used by some though this is not widespread or sustainable" (Paul, Simons, & Fennig, 2013, n.p.).[25] However, a 2011 dissertation by Rodriguez Toledo-entitled "Endangered languages, the importance of linguistic documentation in Mexico: Notes on the Zapotec of Union Hidalgo, Oaxaca"[26] locates the current status of Zapotec as being much lower. In his investigation Toledo-Rodriguéz (2011) argues that the current scope used to determine the status of Zapotec languages is too broad to deal with regional variations like those seen in Union Hidalgo and other smaller Zapotec communities. These smaller communities are overshadowed by the language center of Juchitan de Zaragoza, a municipality traditionally regarded as the bastion of Zapotec language and culture. In contrast to larger studies, in limiting his study to Union Hidalgo, Rodriguéz Toledo shows that the Zapotec language in our community is in fact critically endangered and in imminent danger of disappearing if nothing is done soon. Toledo-Rodriguéz arrived at this conclusion by taking into account several factors, including the proportion of speakers of the total population, the population of youth speakers of the language (a measure of intergenerational transmission), and the type and quality of existing language instruction materials. Taking up Rodriguéz Toledo's conclusion about our language, I conducted my own assessment of the vitality of our language by using the UNESCO (2003) vitality scale. Below I provide a table of the nine determining factors

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[25]   Retrieved from https://www.ethnologue.com/language/zai

[26]   I translated it from the original title, which is "Lenguas Amenazadas, La Importancia de la documentación Lingüistica en México: Notas sobre el Zapoteco de Unión Hidalgo, Oaxaca".

that were used to assess the vitality of Diidxazá in our community, followed by detailed summaries for each factor further explicating why I came to that specific grade and conclusion.

UNESCO'S 9 FACTORS	GRADES GIVEN TO DIIDXAZÁ (ZUH) UNIÓN HIDALGO
1 Intergenerational Language Transmission (ILT)	**(3) Definitely Endangered:** The language is used mostly by the parental generation and up.
2 Absolute Number of Speakers	**(3) Definitely Endangered:** There are 7647 who speak an Indigenous language/ Diidxazá out of a population of 15 347 placing the percentage of community speakers at 56.26%.
3 Proportion of Speakers within the Total Population	**(3)** Majority speak it.
4 Trends in Existing Language Domains	**(3) Dwindling Domains:** The language is in the home domains and for many functions, but the dominant language begins to penetrate even home domains.
5 Response to New Domains and Media	**(2) Coping:** The language is used in some new domains.
6 Materials for Language Education and Literacy	**(2)** Written materials exist, but they may only be useful for some members of the community; and for others, they may have a symbolic significance. Literacy education in the language is not a part of the school curriculum, nor the everyday.
7 Governmental and Institutional Language Attitudes and Policies, Including Official Status and Use	**(5) Equal Support:** (de jure) All languages are protected. **(3) Passive Assimilation:** (de facto) No explicit policy exists for minority languages; the dominant language prevails in the public domain .
8 Community Members' Attitudes toward their Own Languages	**(5)** All members value their language and wish to see it promoted. **(3)** Many support language maintenance; others are indifferent or may even [passively] support language loss.
9 Amount and Quality of Documentation	**(0) Undocumented:** No material exists.

Figure 2.3. My chart illustrating the overall grades given to each factor in reference to Diidxazá in Unión Hidalgo.

Assessing the Vitality of Diidxazá in Union Hidalgo by Applying UNESCO's 9 Factor Method

By taking such factors into account, Rodriguéz Toledo's (2011) study places our language somewhere between "In Trouble" and "Dying" on the SIL scale, a status which more accurately reflects my own experience of language proficiency in our community. I determine the 5-0 grade for each factor on the UNESCO vitality framework as it relates to our community based on personal experience, working in our community on several projects aimed at the revitalization of our language and the preservation of our culture, interviews, field notes, as well as secondary sources which situate ethnographic data historically. I triangulated these sources of data in order to determine how to grade each factor on the vitality scale.

Factor 1: Intergenerational Language Transmission (ILT)

ILT refers to a language being transmitted from generation to generation and is perhaps the most vital factor in the continuance of a language (Brenzinger, 2007; Fishman, 1991; UNESCO, 2003; Lewis & Simons, 2006; Sallabank, 2010). My three-year-old niece in Unión Hidalgo, like many young people in our community, is an active overhearer of Diidxazá (mostly from their grandparents' generation), but she, like so many others, is not learning Diidxazá as her first language. In fact, my niece, like many of my cousins, friends, and 98% of the cellphilm participants in my study recounted that their parents did not teach them Diidxazá for several reasons which I will discuss later. The point here is that my generation (x), like the ones preceding it, are not learning Diidxazá as their mother tongue and this places this first factor of intergenerational transmission at (3) on the vitality scale, definitely endangered, which means that:

> the language is no longer being learned as the mother tongue by children in the home. The youngest speakers are thus the *parental generation*. At this stage parents may still speak their language to their children, but their children do not

> typically respond in the language. (UNESCO, 2003, p. 8)

Regrettably, this description reflects, for the most part, the present status of intergenerational transmission in our community. However, it should be mentioned that there are some young people, such as one of those who attended the cellphilm workshop, who are fully fluent in our language, but this is unfortunately not common.

Factor 2: Absolute Number of Speakers

The UNESCO (2003) framework does make an important proviso in relation to determining the absolute number of speakers by stating "that it is impossible to provide a valid interpretation of absolute numbers" (p. 8), an observation echoed by Grenoble (2011) who cogently shares some of the problems that arise in counting speakers, such as the fact that "figures for speaker counts almost always try to give the number of first-language speakers, and yet these numbers reflect self-reporting, not actual assessment" (p. 29). Grenoble (2011) continues by arguing that we need also to take into account the importance of identity, since it is a critical factor in terms of how people answer questions of fluency or non-fluency. For example, "people who identify with a particular ethnolinguistic (or heritage) culture may claim either knowledge of the language even when they are far from fluent" (Grenoble, 2011, p. 29) or speakers may claim no knowledge of the language despite being fluent speakers in order to shield themselves from further marginalization and or even persecution.

Factor 3: Proportion of Speakers in the Total Population

"The number of speakers in relation to the total population of a group is a more significant indicator of language vitality than absolute speakers' population numbers" (Dwyer, 2011, p. 4). For this factor I draw on the INEGI census data from the years 2010 and 2015 to assess the proportion of speakers in the total population. I draw on the data reported in both censesus because each has varying data, such as the percentage

of the population who identifies as Zapotec 2015 census, while the 2010 census gives us a number of actual number of speakers in the community. By uniting the data from both I feel we have a more complete picture of total speakers, as well being able to report the decline of speakers within the five-year period. However, a caveat should be noted that neither of the reports provide us with information on non-fluent speakers or passive speakers, so the number is unfortunately incomplete. According to the 2015 census Union Hidalgo had a total population of 15 347 with 81.59% of the population identifying as Indigenous (Zapotec, Zoque, Ikoots)[27] yet only 56.26% of the population speaking an Indigenous language. In fact the 2010 census reports that the total amount of Zapotec speakers was 58%, while in 2015 there was an almost 2% (1.74%) decline of Indigenous speakers underscoring how precarious the future of Diidxazá is in both our community and in Mexico in general. Taking this factors into account I would give this factor a grade of **(3)** meaning that the majority speak it, but defintly endangered and while 56% percent may seem like a lot, but when one considers what our elders told us that 35 years ago almost the entire community was speaking Zapotec coupled with more than 2% decline in five years it is cause for serious concern.

Factor 4: Trends in Existing Language Domains

This factor takes into account where and with whom the language is used and for which topics. Axiomatically, the more consistently and resolutely a language is used the stronger the language is. Ideally, a language should be used in all domains, but that is not the case in Unión Hidalgo. Using the UNESCO grading scale, I would grade language usage in our community as **(3)** dwindling domains, which means that language is used in the home and for many functions, but the dominant language

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[27] The exact percentage between both groups was not give, but from personal observation and consulting elders and others from the community the majority is Zapotec. The percentage of the two other groups is very low according to the 2010 census the amount of Zoque speakers in the community was 0.1% while there was no data given in terms of Ikoots speakers in either census.

has already penetrated the home domain. For example, the typical home in our community is ordinarily multigenerational, which means that the average home typically has an elder or elders, parents, at least one of their children with their children. In this multigenerational environment the elders (50 and older) and the parents speak Diidxazá among themselves, while their children usually fully understand the language, but do not speak it. Some members of the generation of 20- to 45-year-old members can and do speak it but many do not or choose not to. Unfortunately, the intergenerational link between younger parents and their children is almost completely dominated by Spanish.

Diidxazá , however, does prevail in certain contexts of the community, such during *la estación* or *el mercado de 7 noviembre* (markets), also in the *milpa* (corn fields), and of course during the fiestas, such as *Velas*, which "are annual fiestas that include a vesper service and a Mass, a parade, an all-night dance, and a daytime dance" (Royce, 2011, p. 16). Other language domains also include any context involving a traditional *binnizá* practice, such as farming, making *totopos*, fishing, the embroidering of *traje*, to name a few practices. This is because these are traditions carried out by elders or members of either the baby boomer generation (born between 1946 and 1964) and the generation before them. It is among these two generations that you will hear converseations in Diidxazá on a regular basis in our community, or they will greet one another in Diidxazá, but it is very rare to hear members of the younger generations greet each other in Diidxazá . These domains where Diidxazá does still exist are shrinking because of the age group that dominates these spaces and we see very little penetration by the younger generations.

Factor 5: Response to New Domains and Media

Factor 5 takes into account how a language is being adapted and used in new social and technological ways as the community's living conditions change over time. New language

domains can include, for example, schools, work environments, new media including broadcasting media, and the internet. Now, given the mobile revolution, I think it should also include mobile technology and its associated social activities such as texting, posting on social media, and cellphilming. Axiomatically, the more actively a language is adapted to be useful in new domains, the stronger it will be, but critically endangered languages like Diidxazá have a hard time contending with the use of "the dominant language in [a] new domain [which] has mesmerizing power, as with television" (UNESCO, 2003, p. 11). The Mexican government has tried to respond to this crisis through legislating official policies guaranteeing the right to use Indigenous languages in the public sphere and in relation to Indigenous education. In particular, Mexico describes its teaching as "intercultural bilingual education" (Cambronne, 2009, p. 2). Despite Union Hidalgo having one of these intercultural bilingual schools, this is by no means enough to help reverse this crisis of language loss, for several reasons. First, like most intercultural bilingual schools, the one in Union Hidalgo is severely underfunded, and this affects greatly the quality of education and makes parents wary about sending their children to these schools. The second problem with these bilingual schools is that they typically go up only to the fifth grade when the active socialization of Spanish begins to prepare students for secondary school, at which point bilingual Zapotec-Spanish options are not available. Moreover, another problem with this intercultural bilingual education in Mexico, as Despagne (2013) rightfully notes, is that it "is still [a] transition toward Spanish, and serves to assimilate Indigenous students into mestizo culture" (p. 116). Another "main problem is that Indigenous bilingual intercultural education, in general, is created through the lens of the dominant mestizo culture, not through the lens of Indigenous knowledge and epistemologies, which would give official free textbooks another cultural perspective" (Despagne, 2013, p. 116).[28]

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[28] For a full critique of intercultural bilingual schools see Cuevas Suárez, 2004; Despagne, 2013; Hamel, 2001; Podestá Siri, 2009.

In terms of new technological domains Unión Hidalgo does have three *guiiba hrica' hridxi* (radio stations) (not to mention several in Juchitan) that broadcast in Diidxazá . One such example is our collective's radio station, *la otra radio*, which is the only community-run radio station. As such its mandate is to broadcast 90% of its content in Diidxazá, to have all the programs developed by local residents, to ensure that 100% of the advertisements are from local business, and to have no political advertisements or content because its aim is to promote self-determination and local autonomy. Cellphones, or, as they have been dubbed in Diidxazá, *bichugale,* are used by a wide and multi- generational demographic in our community from elders to youth for a range of different uses. For example, my uncle, who is considered an elder, texts his friends and families quite often in Diidxazá as do many other members of our community including young people. Moreover, many youth who may not have a strong command of Diidxazá do, however, use their cellphones to record cultural activities, events, or practices which they then share on social media such as Facebook which has, for example, numerous Zapotec focused groups, not to mention the local website called *Zapotecos del mundo*, which is a Facebook-like website developed by and for Zapotecs around the world. This social media site allows Zapotecs to discuss Zapotec history and the Diidxazá language, and to create and share new cultural events and initiatives. Another great online resource is the Familia Toledo website that not only includes various bilingual poems, videos, as well as an online Spanish to Zapotec translator. However, these websites are some of few that focusing specifically on Zapotec language and culture so it is difficult for it to compete with giants such as Facebook, Instagram, and others that use a dominant language. As promising and exciting it is to see new words, such as *cellphone*, *radio*, and even *internet* coming into the Diidxazá lexicon, unfortunately with its limited growth and penetration into other community domains this factor would be graded a **(2) coping,** which means that the language is used in some new domains.

Factor 6: Materials for Language Education and Literacy

"Education *in* the language is essential for language vitality" (UNESCO, 2003, p. 12). In the education domain, Dwyer (2011) rightfully pointed out that it is critical to have instruction in the endangered language for the duration of a school day as opposed to its being in the dominant language, which, in this case, would be Spanish. It is true that there are language communities, as the UNESCO guide notes, that maintain strong oral traditions, so they do not wish or need to have their language written, but, as I noted earlier, Isthmus Diidxazá has a long tradition of being written down. Literacy in the Isthmus Zapotec communities is definitely a source of pride and there are many wonderful and important examples. Unfortunately, intercultural bilingual schools in most cases do not bring this local Zapotec literature into their classrooms nor take advantage of the expertise of these local scholars and writers.

The Public Secretary of Education (SEP), the General Coordination of Intercultural Bilingual Education (CGEIB), and the Public Education Institute of the State of Oaxaca (IEEPO) as educational organizations have not created any type of educational material specifically for Isthmus Zapotec from what I know personally and from conversations I have had with others, nor are there any materials by such organizations being used in the intercultural bilingual school in Unión Hidalgo. Despagne (2013) also correctly argued that the SEP perpetuates monoculturalism which is reflected in the fact that pedagogical vision is based on a Western vision of what bilingual intercultural education should be. "The few pedagogical materials and textbooks in Indigenous languages that exist are mere translations of the textbooks used in the monolingual system" (Despagne, 2013, p. 117). However, the National Institute of Indigenous Languages (INALI) has, since its inception, created a variety of materials from CDs, books, educational charts for children. While these are undoubtedly important contributions, and important for the writers and educators involved, in many ways these materials, some of which are available online, are more of a ceremonial

source of pride. The other problem with the material produced by INALI and other organizations (NGOs, Universities, etc.) is that there is no mechanism set up to properly distribute the material to the community at hand, nor is this important material being brought to the schools, a context in which it should be disseminated first and foremost especially if it these are intercultural bilingual institutions. Another crucial issue with written Diidxazá sources is that while they are an important community and intellectual effort, not enough people in the community either read in Diidxazá or necessarily agree with the orthography. Therefore, this factor would have to receive a grade of **(2)**, which is to say that there is written material that exists, but it is useful only for some members of the community and has more symbolic significance for the community than practical everyday application. Also, literacy in education is not a significant part of the everyday school curriculum.

Factor 7: Governmental and Institutional Language Attitudes and Policies, Including Official Status and Use

The government of Mexico has finally acknowledged (thanks in large part to the Zapatistas and other Indigenous movements and Indigenous intellectual work) that Mexico is a pluricultural nation that speaks 68 languages, not including Spanish and English or any other global languages that may be spoken. Hamel (2008) noted that legislation in relation to minority languages in Mexico has moved "from a fairly weak tolerance orientation to a more specific and overt promotion orientation regarding the role of Indigenous languages" (p. 307). This is particularly evident in the creation and passing of the General Law of Linguistic Rights of Indigenous Peoples of 2003, marking a new area for language policy in the country. Article 9 of this law says that "All Mexicans have the right to communicate in their mother tongue, without restrictions, in public or in private, written or spoken, in all social, economic, political, cultural, religious or any other kind of activity" (Cambronne translation from Cambronne 2009,

p.8). This new legislation sounds promising and even progressive considering the historical treatment by, and assimilative tactics of the colonizers and later the Mexican government, but in fact it is quite different, as many Indigenous people will tell you. To quote a lengthy passage by linguist Augsburger (2004), who poignantly captures the ongoing marginalization of Indigenous languages and plight of their speakers, despite the implementation of article 9 by the Mexican government:

The larger Mexican society has tended to see indigenous languages as a symptom of poverty, backwardness, and possible illiteracy, partly because they are associated with inadequate command of Spanish. In this view 'Indianness' becomes a negative identity of the insufficiently Castilianized individual rather than having positive content of its own. Even when Indigenous languages' link to pre-Conquest civilizations is acknowledged, present-day ways of speaking are often seen by some as either debased version of an earlier 'pure' language, or irrelevant to the practical necessities of the present. Hence, Indigenous language speakers in Mexico are caught between different ideologies of identity and language use, some that value distinctive ways of speaking and others that denigrate linguistic difference from the standard language as deficient … National ideologies depict Indians' linguistic assimilation to the mestizo majority as both necessary and inevitable. There is pressure to embrace both the practical opportunities and the more prestigious identities that come with the new language, and to abandon the old language with its associations with marginalized or denigrated populations. (Augsburger, 2004, p. 53)

Augsburger's description resonates with my personal and family experience of being Indigenous in Mexico and the types of choices we make under duress because we want to shield our children from ridicule and persecution, but also try to secure a future for them in a system that is already set up for the proud and self-identifying Indigenous person to fail. It is important to note that in this context "a person can have Indigenous parents but not be considered Indigenous, that is by speaking Spanish, moving to

the city and adopting western dress, Indigenous persons can lose or rid themselves of that Indigenous identity and become a Mestizo" (Barry, 1995, p. 174). Therefore, this factor at first glance would receive a grade of **(5) equal support**, which means that all of Mexico's languages are valued and protected by law, and the government through intercultural bilingual schools and other initiatives such as the creation of INALI are making efforts to promote the preservation of language. However, taking into account Augsburger's description and the fact that these governmental institutions that are meant to promote Indigenous language revitalization and preservation are not actively creating Indigenous-focused material (as mentioned in factor 6) coupled with the general attitudes I would argue that a grade of **(2) passive assimilation** is more reflective of the general situation in Mexico.

Factor 8: Community Members' Attitudes toward their Own Languages

This factor addresses the attitudes of those internal to the language community towards their own language. It is perhaps the most complex of all the factor to actually grade because, as I will elucidate, no community is homogeneous nor are their attitudes towards their language. "The maintenance, promotion, or abandonment of non-dominant languages may be dictated by the dominant linguistic culture, be it regional or national" (UNESCO, 2003, p. 12). UNESCO, in this report and in this framework, also takes into account language attitudes and policies (at both local and national level), because, as the report cogently notes, with any dominant linguistic culture come specific linguistic discourses with specific socio-cultural and socio-economically driven ideologies that are learned in school and at university, and that even penetrate the home via media, which "play a crucial roles in establishing the values of certain language practices and devaluing others"(de Korne, 2016, p. 23). In Mexico, as de Korne (2016) rightly noted, there is a high value placed on Spanish and increasingly more so on English in schooling and, I would argue, in general, while Diidxazá and

other Indigenous languages have, as de Korne further asserts, "historically been considered to have little or no value, giving their speakers little or no social value" (p. 23). Understanding these ideologies helps better understand the vitality of the minority language and its future, which is perhaps the main goal of this UNESCO framework. However, these ideologies manifest themselves in everyday mainstream discourses engendering erroneous collective beliefs and attitudes about Indigenous peoples, their language, and how they choose to see and represent them. Including this factor, I assert, also allows researchers and the Indigenous people who live this out to better comprehend the complex and intersectional nature of language loss in that it is not only a loss of language but an entire associated web of socio-cultural factors that Indigenous peoples are struggling to decolonize and preserve.

From my experience in our community, language, as in most communities, is seen as a critical factor of *binnizá* pride and identity and essential to our community. However, residual trauma from centuries of oppression and marginalization for speaking our language and simply being Indigenous continues to be an integral factor in the relationship people in our community have with Diidxazá and *binnizá* culture. Therefore, in many ways this factor should be assessed in terms of pre and post decolonization to truly offer an understanding of the community's attitude towards our language. How to understand language loss in our community is very complicated because of the many perspectives each generation has towards Zapotec and the many ways they have of relating to or experiencing the language. Most youth in our community grow up in a multilingual household in which they are exposed to Zapotec, Spanish, and, in some cases, Huave. Therefore, youth are active overhearers of one or more of these languages. While the linguistic comprehension of young people is limited, they often know enough to understand when they are being spoken to by elders and are able to articulate short responses (even though quite often they revert to speaking Spanish or blending it with Zapotec). As such, youth socialization in Zapotec is often

quite passive. This is because in most cases they are socialized to actively use Spanish in school and by parents wanting what is best for their children. There is an expression, *se te va trabar la lengua* (you will become tongue-tied) that alludes to a prevailing attitude that speaking Zapotec will only impede one from learning Spanish properly. The narrative that learning Zapotec will hold you back is part of a very common and encompassing discourse of modernization commonly referred to in the community as *salir adelante*, meaning that to get ahead or make a better future, one needs to abandon the Zapotec way of life, including our language. In other words, the message we are given is that colonial languages such as Spanish and English are the best avenues to social mobility and the only path to the modern world. But this equation perpetuates the mistaken belief that Didxazá is incapable of communicating high-functioning ideas and concepts in education, science, judicial systems, and technology as effectively as European languages, and it only further distances community members from appreciating their own culture and its nuances.

The discourse of *salir adelante* exists within a complex, ambivalent set of feelings about Zapotec and Indigenous identity in Union Hidalgo. On the one hand, parents want to protect their children from the kinds of abuse, discrimination, and shame they felt when speaking our language or practicing our customs. So, many parents actively promote Spanish, and now English, over Zapotec for their children in order to protect them from future discrimination. This strategy is further validated by school and national/global discourses that assert that having competency in these global languages will give young people job security and future opportunity, not only in Mexico, but also *en el extranjero* (outside of the country). On the other hand, however, elders and parents lament the fact that the younger generation is no longer engaging in our ancestral practices and speaking our language. In this case elders and parents believe that Zapotec youth simply gravitate towards Spanish or English, but I think the problem is much more complex and nuanced than just a teleological equation. What I mean is

that most youth grow up in a multilingual household and community and this raises conflicting ideologies and messages that they need to negotiate.

According to my great grandfather, who recently passed away, not long ago one would hear youth in the streets and in the market speaking our language and occasionally one would hear Huave, the language of the neighboring Indigenous community. Local government relations were all done in Zapotec and the custom of telling stories at night in the language to entertain one another was still practiced. All this changed, however, once electricity was introduced into our community because, he said, it brought with it radio and then television, thus very rapidly altering social and linguistic practices. Now that the global economy has come to have a firm place in Union Hidalgo, national and global languages have become a necessary mode of communication for youth in our community. This is a reality that is radically different from the one our elders, such as my great grandfather, were immersed in, where Zapotec was the dominant and often only mode of communication. In contrast, youth in our community are forced to work in multiple languages and Spanish and English are ascendant in schools beginning in grade four. If we take all of these considerations into account this factor would be anywhere between **(5)** **all members of the community value their language and wish to see it promoted** to **(3)** in which **many members support language maintenance while others are indifferent or may even indirectly support language loss**.

Factor 9: Amount and Quality of Documentation

"Ideally, a language community would have an abundance of well-documented, transcribed, translated, and analyzed materials" (Dwyer, 2011, p. 7). Such material would include audio and audio-visual recordings, comprehensive grammars and dictionaries, and a variety of texts for all ages as well as literacy guides on reading and writing Diidxazá. There are indeed a great deal of these above mentioned materials

and amazingly good work done in terms of documentation (see *Alfabeto Popular para La Escritura del Zapoteco del Istmo,* 1959; Britton, 2003; De la Cruz, 2013; de Korne, 1999, 2013, 2016; Pickett, Black, & Vicente Marcial, 1998, 2001.) However, almost all the documentation work done on Diidxazá is based in Juchitán. Although there are some texts (mostly oral histories of the pueblo) and audio-visual examples (made public with the consent of the participating elders), almost exclusively recorded by our media collective Binni Cubi, and some audio recordings, there is no in-depth and long-term study or documentation that exists for Union Hidalgo Diidxazá (see Rodriguez Toledo, 2011). In other words the grade that our community of Unión Hidalgo would receive in this area would be **(0) undocumented**, because no material exists. This is why Juchitán continues to be regarded as the reigning bastion of Diidxazá, which is not to disregard the incredible work that has been done there by both *binnizá* intellectuals and researchers, but when anyone asks to learn Diidxazá or wants some material they are inevitably directed to go and find it in Juchitán. This is unfortunate because there is a wealth of resources in terms of elders' knowledge and practices, and while Juchitán is geographically not too far from Unión and inhabitants do speak the same Diidxazá variant, there are many elders and residents who will note differences between our Diidxazá and theirs, in terms of tone and pronunciation, for example. This is all the more reason why a systematic documentation is urgently needed. I believe that each *binnizá* community has certain distinctive qualities in their version of Diidxazá that reflect the socio-cultural and socio-historical specificity of each community.

Comparing my Conclusions with Other Isthmus Zapotec Vitality Rates

Ethnologue is a well-respected web-based publication that contains information about the 7,099 living languages, provides information on the number of speakers, location, dialects, linguistic affiliations, antonym, or "self name," of the language, and determines

the vitality of each language using the Expanded Graded Intergenerational Disruption Scale (EGIDS). The EGIDS, similar to the UNESCO scale, uses a grading system from 10 to 0, with 10 being the lowest a language could score, meaning it is **extinct**, while 0 is **international**, which means the language is widely used between nations in trade, knowledge exchange, and international policy. Using the EGIDS scale, Ethnologue has rated Isthmus Diidxazá as **(5)** or developing, which means that the language is in vigorous use and with literature in a standardized form being used by some though this is not yet widespread or sustainable. The endangered language project is a worldwide partnership between Indigenous language organizations, linguists, language activists, academic institutions, and key industry partners to strengthen endangered languages, which allows users to upload and share key information about endangered languages in order to foster an exchange of ideas and information to help at-risk language communities in their fight to save and preserve their languages. Moreover, unlike the UNESCO or EGIDS scale, the endangered language project uses the language endangerment index (LEI), which is part of the catalogue of endangered languages (ELCat) that was developed in collaboration between the linguistics department of the University of Manoa and the University of Michigan. This framework takes into account three fields, 1) transmission, 2) trends, and 3) domains. Intergenerational transmission is considered by most linguists as the most important factor in determining and ensuring linguistic vitality, and this factor carries twice the weight of each of the other factors in the scoring schema. The scores for each factor are compiled to produce a combined percentage. According to the percentage, the assigned language is assigned a level of endangerment[29] (e.g., a score of 61% would indicate a critically endangered language; see Lee & Van Way, 2016). Therefore according to this schema the endangered language

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[29]   The formula for establishing this aggregate score as a percentage is as follows:
Level of endangerment = {[(intergenerational transmission score x 2) fl absolute number of speakers score fl speaker number trends score fl domains of use score]/total possible score based on number of factors used} x 100. (Lee and Van Way, 2016, p. 285).

project affirms that Isthmus Diidxazá is rated as **vulnerable**, receiving a numeric rating of 10,000-99,999.[30] This means it is vulnerable. Looking at the three aforementioned fields, starting with 1) language transmission, most adults and some children are speakers. For 2), trends, most members of the community speak the language. Speaker numbers may be decreasing, but very slowly. And for 3) domains, the language is used in most domains *except* for official ones such as government, mass media, education, etc. Both Ethnologue and The Endangered Language project establish that Isthmus Diidxazá is not in any real danger at the moment, which may be the case for Juchitán. From talking to friends and family who live in Juchitan and my general experience I think that while there is an incredible amount of work done in terms of documentation and language nests, still, education language attrition rates amongst youth have never been higher. Geographical proximity to Juchitan, the Diidxazá stronghold in the Isthmus of Tehuantepec, does not, I argue, mean that it necessarily equates to having the same Diidxazá language vitality. Equating our community, and all Isthmus Diidxazá -speaking communities, for that matter, as having the same language vitality, is just another reductive and colonialist way of seeing Indigenous peoples as homogenous, thus ridding each community of its own unique historically-based and forged identities, politics, culture, way of being and, most critically in this case, their unique context-specific language. I would suspect that no linguist would be so brazen with their assessment of a global western language. Nevertheless, one can see from my assessment that our language, Diidxazá, is not "developing" or just "vulnerable", but is, in fact, critically endangered, particularly when one considers the fact that our language has in one generation (35 years) plummeted to almost 50% of speakers. I am not sure how this cannot seem like an alarming number for any linguist, scholar, or language activist.

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[30] $LEI = \dfrac{Number + IntergenTrans * 2 + Trends + Domains}{highest\ attainable\ score\ with\ given\ factors} * 100$

Why Do Youth Need to or Want to Learn Zapotec?

Despite these significant pressures from mass media and government educational policies to move Indigenous people towards global languages, many youth are in fact actively seeking to learn and use Zapotec in Ranchu Gubiña (Union Hidalgo). From my experience, many youth who are actively learning to speak Zapotec in our community have expressed that they are doing so because they want to be able to talk and understand the stories and teaching of their elders. Often at celebrations like weddings, elders will tell funny anecdotes or will recite poems in Zapotec and then translate them into Spanish, which is almost always followed up by the phrase, "If you knew Zapotec it would have been funnier" or "If you understood Zapotec you would know how metaphorical our language is." This lack of being able to fully comprehend or appreciate the more esoteric or historical meanings of their language is one of the many reasons youth yearn to learn Diidxazá. For example, "dawn" in Zapotec is *Siado guie* which can be translated "as morning flower or morning in bloom, a metaphor that offers the idea of this natural phenomenon as if the morning were a flower that just opened and is tinged with its red color" (Rios, 2014, p. 5, my translation). My great grandfather, who dedicated his entire life to working the milpa, explained to me that it also refers to squash blossoms opening in the morning. Or take another the statement *guca 'huaxhiñi*, which, according to Rios (2014), means "I became night" or "I am the night," not only gives the understanding of the temporal notion, but it denotes that there is a person transforming into or becoming one with the night, which is not only an exceptional occurrence, but which could also refer to a more esoteric and perhaps no longer understood pre-Hispanic phenomenon. One of my cousins expressed to me that he wished he understood Zapotec so he could not only enjoy the beauty of our language but also understand the poetic and metaphorical knowledge related to the wisdom about our local environment that words such as *Siado guie* encapsulate in our language. For others, speaking Zapotec is key to feeling more connected to who they are

and where they are from as Zapotec people. I recall a young mother and friend saying to me that she was speaking Zapotec to her newborn child because she said she felt she had a responsibility to transmit Zapotec to her daughter much like her mother did for her and her grandmother had done before that.

As Davis (2009) suggests of Indigenous languages, Zapotec contains crucial knowledge that can be gained only from the experience of living in an ecosystem for generation upon generation. Because of this continuous process, Zapotec has come to hold valuable information about our ancestral practices, such as agriculture, living off the land, traditional medicine, craft making, oral histories, and traditions. Continuity is a fundamental characteristic of traditional knowledge which is rooted in Zapotec and vice versa. Our language, therefore, not only contains vital information for surviving in our local environment, but these practices articulated through Zapotec continue to forge a local identity. Therefore, by not learning to speak Zapotec a person in some ways relinquishes the autonomy and self-determination of our Zapotec way of life that our ancestors fought so hard to preserve.

Zapotec plays a significant role in the lives of youth, just as Spanish is important in particular contexts such as school. Ancestral practices, such as agriculture and fishing and the oral traditions that the Zapotec language describes, are critical in continuing to foster a local Zapotec identity, rooted in a history of thousands of years of local autonomy. Youth in Ranchu Gubiña are living the reality echoed by Garcia (2009) that "to get ahead as an Indigenous youth, cultural and language practices *cannot* be one or the other," (p. 379) Spanish *or* Zapotec. Instead of having to choose between categories of modernity and tradition, youth actively integrate all of those experiences in order to productively engage in the continuity of their identities and their future (Garcia, 2009).

Revitalization approaches, then, need to recognize this complex, multilingual, and multimedia environment within which language acquisition occurs, working with the new techniques and strategies youth are developing in their polyglot environment.

Younger generations like my own are not only using our Zapotec language but are blending various combinations of these languages concurrently in their daily lives (a practice Ofelia Garcia refers to as *translanguaging*, as mentioned earlier). Rather than losing their language and culture, youth in our community are innovating in relation to their language practices as a result of being more connected to mainstream global culture than their parents. In contrast to the vision of fluency held by older Zapotec speakers who perceive a direct link between linguistic competence and cultural identity, as Evans (2009) and Pennycook (2010) recognize, the younger generation expresses cultural identity as inherent in a process associated with a broader definition of language as a cultural practice. Their practices reflect their search for ways to stay connected to their communities, just as they articulate their lives to the world outside of their communities. This is a world in which traditional practices like fiestas and the harvest of maize appear in videos on YouTube or in photos on Instagram. In myriad, diverse ways, youth are expressing their Zapotec identity.

Summary

Language loss is not a facile teleological equation from a once thriving language to a group of people simply abandoning their language for a more functional global language, nor is loss or shift in language a natural phenomenon. Instead, our language has history, as does the destructive path that has tried to erase and diminish it through colonial decrees, such as the *Cedula Real* of 1770 which had the clear purpose of eradicating Indigenous languages in Mexico by the Spanish crown, to National policies beginning with the independence of Mexico. These imposed policies were drafted and enacted with the principal assumption that we as Indigenous peoples would simply disappear and so would our language and culture. Not only are we still here, but our language continues to exist despite colonialism and its malicious policies that tried to assimilate us. Even linguists trying to preserve and or document our language continue

to treat Indigenous peoples as homogenous entities assuming that all Isthmus Zapotec communities are facing the same rate of attrition. This homogenizing discourse and approach, taken up by state educational policy-makers and linguists alike, in fact does more harm by assuming that one approach and one policy can serve all Indigenous peoples alike, or, in the case of linguists, the assumption that attrition rates are the same because of our geographical proximity and shared culture, such as is the case with Juchitan and Union Hidalgo. In fact, we have very different attrition rates because we have very unique and different histories, which have impacted the continuity of our shared language, Diidxazá, in very distinct ways. Zapotec scholar and activist De la Cruzhas pointed out that there is no *one* Zapotec language with numerous dialects, but in fact it is multiple languages with their own community-specific histories and actors both of which have directly influenced their development and their continuity. Therefore, what we have learned from this long and arduous process of imposed cultural assimilation is that we cannot by any means continue to leave the welfare and future of our language in the hands of people outside our community or people who are not well acquainted with our community—its members, history, cultural practices traditions, goals and agendas. Therefore, this requires more people from our community to assert themselves directly in the process of education and revitalization to ensure the survival of our language. This process of ensuring the survival of our language also requires us to come together as a community and work vigilantly "to undermine all the socialization that leads us to behave in ways that perpetuate domination" (hooks, 2003, p. 36).

3

Literature Review on Language Revitalization

> *What could be more lonely than to be enveloped in silence, to be the last*
> *of your people to speak your native tongue, to have no way to pass on the*
> *wisdom of the elders, to anticipate the promise of the children. This tragic*
> *fate is indeed the plight of someone somewhere roughly every two weeks.*
>
> (Wade Davis, 2009, p. 3)

Language loss and revitalization, as Hermes and King (2013) have noted, are not new topics of academic work nor new areas of community activism, while they do note that the last several years there has been an "increased attention paid to the ways that new technology can support efforts to teach and renew endangered languages" (p. 125). However, as Brennan (2013) wrote in *The New Yorker*:

> Simply embedding endangered languages into the keyboards of smartphones
> will not save them. But, keeping these languages enmeshed in the fabric of

daily life—which, particularly for the newer, younger speakers who are key to these languages' survival, means being a viable way to communicate through technology—is the only way they will have even a slim hope of surviving. (A lifeline for endangered languages, para. 8).

Despite this increased attention to this issue being paid by the academic community and the integral role Indigenous communities are playing in adapting and shaping technology for their own purposes, the literature on the topic of the use of technology to help in language and culture revitalization remains very limited (Galla, 2012). This might, in part, be because of the fact that the field of technology in relation to language revitalization is still in its nascent stages and because of the rapidly evolving nature of technology, specifically mobile technology, and the ever-increasing availability of mobile technology in communities (Dyson, 2016). In this chapter I present an overview of the some of the issues and discourses (Heller & Duchêne, 2008; Patrick, 2008) relevant to the subject of language endangerment, while elucidating some of the current models used in assessing and or determining language vitality, as well as models of revitalization being used in affected communities. I also provide a brief overview of some current approaches to language revitalization, which include Immersion and Bilingual Programs (second language learning in schools), Master-Apprentice (elders mentoring adults and/or youth), Language Nests (an immersive language approach beginning from birth to five years of age), Community Based Traditional and Cultural Programming, and Resource and Curriculum Development and Documentation. Moreover, I also survey the literature and current debates and trends on technology and Indigenous language revitalization, focusing specifically on the role and impact that mobile technology alongside apps has had on Indigenous language learning and revitalization.

The State of Endangered Languages Today

Academics (such as linguists, anthropologists, and educators), non-governmental organizations (NGOs), state agencies, and journalists generally agree that there are between 5000 and 7000 languages (Austin & Sallabank, 2011; Crystal, 2000; Harrison, 2008; UNESCO, 2003) while other experts proclaim that there are as many as 10 000 (Al Jazeera, 2005). However, the exact number is not only difficult to determine, but, as several scholars have noted, also problematic. As Hill (2002) cogently pointed out:

> To endow languages with the quality of being enumerable depends on an assumption of the essentialization and individualization of a language as a sort of unit, which contradicts the insights that the array of 'languages' that we currently recognize, even those that do not, in the immortal expression of Max Weinreich, have 'armies and navies' are very much the product of the rise of European nation-states and the colonial regimes that they imposed on the world. (p. 128)

Hill has drawn our attention to the fact that a fundamental difference between language and dialect still persists, which raises the question of what counts as a language rather than a mere dialect? According to Stephen Andreson (2012) this "typically involves issues of statehood, economics, literary traditions and writing systems and other trappings of power, authority and culture, with purely linguistic considerations playing a less significant role"(p.61). It also raises other questions, such as who gets to determine what the difference is between a language and a dialect, and who is considered a speaker. Would someone like me who is in the process of reclaiming and learning our ancestral language and is by no means fluent, be considered a speaker? Would many thousands of Indigenous peoples who are involved in the same process be considered speakers? Would we all be seen to be numbers—merely statistics? What is unquestionable, as I have experienced first-hand (see Schwab-Cartas, 2016), is that Indigenous and other minority languages are declining at an unprecedented rate

because, as Fishman (1991) has also observed, they are not being learnt by children as their first languages. Such languages are said, rightly, to be endangered. According to Sallabank (2010) about 80 of the 6000+ languages in the world have more than 10 million users, while only 96% of the world's languages are spoken by about 3% of the world's people (see also Bernard, 1992).

"Most of the world's language heterogeneity, then, is under the stewardship of a very small number of people" (UNESCO, 2003, p. 2). UNESCO has estimated that up to 90% of the world's languages will disappear before the end of this century (UNESCO, 2003; see Harrison, 2008). No biologist, for example, would suggest that 50 % of all species are moribund. Yet this apocalyptic scenario in the realm of biological diversity scarcely approaches what we know to be the most optimistic scenario in the realm of cultural and linguistic diversity (Davis, 2009). On average, one language vanishes every two weeks and the majority of those affected are Indigenous languages (Rymer, 2012). The preservation and maintenance of heritage/ancestral/tribal languages is of paramount concern to many Indigenous peoples and a quick scan of the multiplicity of efforts by tribes to ensure language survival attests to the extent of that concern (Cleary & Peacock, 1998). Indigenous languages are rich repositories of thousands of years of accumulated knowledge that have developed from intimate relationships with a specific land-base and local ecology and encompass cultural rituals and practices, family lineages, community, physical, and spiritual knowledge of wellness (Amrhein & First Peoples' Heritage, Language and Culture Council, 2010). The Isthmus Zapotec language spoken in my maternal grandfather's community of Union Hidalgo in Southern Mexico embodies many of these issues and is at risk of falling silent. I will return to this in greater detail in the next chapter.

What is Language Endangerment?

A language is said to become endangered through a process in which its fluency rates in a given speech community dissipate over time, eventually resulting in the complete loss of any speakers of the said language, which is then considered extinct. Without adequate documentation or revitalization efforts, not only can the speech community run the risk of losing their language, but also a great amount of cultural knowledge. Some may argue that language loss or extinction, like species loss or extinction, is simply a fact of life on an ever-changing planet. People tend to refer to Ancient Greek or Latin as examples of language extinction, but these languages were not abruptly replaced by other languages the way that English replaced xʷməθkʷəy̓əm (Musqueam) or Spanish replaced Diidxazá (Zapotec). Instead Ancient Greek slowly developed into Modern Greek, and Latin slowly evolved into modern Spanish, Italian, French, and other languages. Moreover, the central premise of language death according to Nettle and Romaine (2012) is that "language is not a self sustaining entity" (p. 5). It can exist only when there is a community of speakers willing to use it despite the seemingly insurmountable external pressures of globalizing languages such as Spanish and English.

According to Rogers and Campbell (2015) the endangered language crisis is believed by many to be one of the most serious issues facing humanity today in posing moral, practical, and scientific issues of enormous proportions. However, language endangerment does not simply refer to languages that are falling out of use or being replaced by global languages such as English and Spanish that are more widely used in a region or nation. It also refers to a very specific field of social knowledge production or discourse (see Duchêne & Heller, 2007; Hill, 2002; Patrick, 2007). Language endangerment is a complex and nuanced field of social knowledge made up of multiple overlapping and competing discourses taken up by many individuals, communities, Nation-States, and governmental and non-governmental funding agencies for their own

motives and to meet their own agendas, some of which can be said to be concerned with directly studying language and related phenomena while others are not so much about language, but are said to be about larger concerns, such as producing and legitimating national and quasi-national language ideologies in the service of state agencies (Duchêne & Heller, 2007), and/or in the service of place-making (Patrick, 2007) to name a few examples.

Following Ashcroft, Griffiths and Tiffin (2000), I understand discourse in this context to be a:

> strongly bounded area of social knowledge, a system of statements within which the world can be known. The key feature of this is that the world is not simply 'there' to be talked about, rather, it is through discourse itself that the world is brought into being. (pp. 70–71)

As these scholars have noted, it is through discourse that individuals come to understand themselves, their relationship to others, and their place in the world or field of knowledge or academic discipline. For example, as Duchêne and Heller (2007) have pointed out:

> Linguists and anthropologists use the field of language endangerment as a place to affirm their expertise and professional, technical knowledge, but also use this discourse as a means to legitimize their disciplines in terms of the social relevance of their fields. (p. 3)

According to Patrick (2008) language endangerment discourse frequently underscores facts like the "high rates of language attrition and the concomitant loss of (1) local knowledge and culture associated with language; (2) cultural diversity that enriches the nation; and (3) crucial tangible and intangible cultural heritage that defines the nation" (p. 37). Patrick goes on to note that this discourse also "appeals at times to linguistic essentialism, which ties particular language varieties to 'authentic' cultural practices and socio-cultural groups inhabiting particular social places and localities" (p.

37). Moreover, Tilly (1990) has reminded us that "discourses are by no means natural or preordained but created in particular historical and social circumstances" (p. 298). There is, of course, some overlap related to language endangerment amongst international agencies, such as UNESCO, Nation-States like, for example, Mexico and Canada, among many others, and even amongst various minority groups such as French Canadians and Indigenous groups. The discourses may include discursive strategies that emphasize appeals to uphold social and human rights and protect biodiversity, to name two examples. However, this does not mean that language endangerment discourses signify or are used or created for the same purposes, agendas, and goals by Indigenous peoples as they are by NGOs and/or even among minority language groups, such as Francophone Quebecers. Patrick (2007) illustrates this point in a Canadian context:

Aboriginal language revitalization is clearly distinct from French, English and heritage language issues in Canada; that is, it is clearly not limited to retaining, revitalization and promoting culture. Even with regard to the mobilization for the protection of the French language, which arose in response to economic English language colonization and assimilation, the substance of the language discourse is different. For Aboriginal groups, language revitalization is linked to individual and community healing practices, the reclaiming of ties to land and place and constitutionally entrenched Aboriginal rights. (p. 51).

Language endangerment, therefore, is not an expression that is homogenous with a singular definition. As mentioned earlier, it is a nuanced and complex phenomenon, and, while discursively there are differing degrees of similarity among various groups, the term has very different and particular meanings and usages depending on the person, group, or entity using it.

Why are Languages Endangered?

There is no singular cause or factor that contributes to language death/loss or endangerment but, rather, a gamut of issues and causes that are involved and act concurrently, such as marginalization, poverty, and globalization, for example. These, on their own, may not be enough, but as overlapping factors they have affected many communities around the world. According to Austin and Sallabank (2011) the following are some broad and interrelated factors that have contributed to language endangerment:

1. **Economic:** For example, rural poverty leads to the migration of people to cities and further afield. If the local economy improves, tourism may bring speakers of majority languages.

2. **Cultural:** dominance by the majority community: For example, when education and literature are pursued through the majority or state language only, Indigenous language and culture may become 'folklorized'.

3. **Political:** Neoliberal education policies ignore or exclude local languages, and this leads to a lack of both recognition and political representation.

4. **Historical:** Colonization, boundary disputes, the rise of one group and its language leads to political and cultural dominance.

5. **Attitudinal:** Minority languages become associated with poverty, illiteracy, and hardship, while the dominant language is associated with progress and escape. (adapted from Austin & Sallabank, 2011, p. 6)

Language endangerment may be the result of *external* forces such as military, economic, religious, cultural, or educational subjugation, or it may be caused by *internal* forces, such as a community's negative attitude towards its own language. Internal pressures often have their source in external ones, and both halt the intergenerational transmission of linguistic and cultural traditions (UNESCO, 2003, p. 2).

Taken together, these simultaneously occurring factors can help us begin to understand why saving or ensuring the continuity of a language is a complex endeavor

with no singular solution. These factors are not only going to continue to create a gulf between generations, critically affecting the intergenerational transfer of knowledge and language, but they also suggest that over time there will be greater pressure on younger generations to adopt global languages. Lamentably, this means ongoing and added risk to the continuity of Indigenous languages, such as Diidxazá, the language spoken in our community.

Determining the Vitality of a Language

Assessing and understanding the vitality of language or the degree of endangerment of a language is a complex undertaking that "entails determining and applying a range of largely quantifiable sociolinguistic variables, such as the number and age of speakers, or whether there is a writing system, educational materials or media in the language" (Dwyer, 2009, p. 1). Moreover, determining the vitality of the affected language is also an essential step in safeguarding it because it helps one best identify the most appropriate approach to language revitalization (Grenoble & Whaley, 2003). Over the years many scholars (Dwyer, 2009; Giles, Bourhis, & Taylor, 1977; Hinton, 2001; Simons & Lewis, 2010) have devised many different assessment tools or models to determine the vitality of a language. Krauss (2007), defined a language as safe if it is thought that children will probably be speaking it in 100 years; endangered if children will probably not be speaking it in 100 years (approximately 60–80% of languages fall into this category); and moribund if children are not speaking it now. One the earliest and perhaps best-known models, the Graded Intergenerational Disruption Scale (GIDS), was devised by renowned sociolinguist Joshua Fishman (1991). The central emphasis is on intergenerational transmission—parents passing the language on to their children. The scale consists of eight levels: "Language domains (Levels 1-3), literacy (Levels 4-5), and intergenerational transmission (Levels 6-8)" (Dwyer, 2009, p. 2). Although numerous schemes have been proposed, as Sallabank (2003) has noted, the 2003

UNESCO scale is perhaps the most comprehensive. "The factor of intergenerational transmission was retained from Fishman's GIDS Scale, while new elements were introduced to evaluate the critical influence that language attitudes can have on the vitality of a language" (Dwyer, 2009, p. 2). The UNESCO scale was used to determined and establish the vitality of Diidxazá in our community of Union Hidalgo as detailed in the former chapter.

Approaches to Language Revitalization and Maintenance

For over a half a century Indigenous people around the globe have tried to reclaim their languages and have worked towards their revival and use in communities (McIvor, 2013). Many Indigenous communities, according to McIvor, are becoming increasingly sophisticated in their methods of revival, but, at the same time, older monolingual speakers of Indigenous languages are dying with each passing year. Just as there are many causes of language loss, there are also many different approaches to such language loss and/or shift, which refers to a process or event like, for example, globalization or colonialism, during which a population changes from using one language to another. The approach one chooses is contingent on many factors, to which I will return shortly. Additionally, even within the same community one approach may not be appropriate for all members of the community or relevant to their goals. For example, if the project is focused on creating a dictionary, this approach would employ a documentation approach rather than a Master (or Mentor)-Apprentice one (Hinton, 2001; Hinton, Vera, & Steele, 2002) which is a program directed towards helping non-speaking members of a community learn their ancestral language with a fluent elder or speaker in the community. In other words, there is never just one strategy to address language attrition in a community. Rather, one can have a wide array of methods to address such language loss in any given community. As mentioned earlier, there are many factors and issues that need to be taken into account when one is choosing the

most appropriate method to address the specific degree of language loss in a given community. The first consideration is the **vitality of the language** itself. How many speakers are left? How old is the average speaker? Is the language still being passed on actively to the next generations? Where and in which contexts is the language being used currently—in the home, market, school, for local politics, or is it being used merely for ceremonial purposes? It is important to determine which socio-cultural context one should examine in any efforts to revitalize a language. We need to know why ancestral languages are being used in particular settings rather than in others and which practices are associated with these settings. Another factor to consider is the pre-existing attitudes in the community across generations towards the language that is being revitalized because they vary from generation to generation; understanding these generational attitudes can also be key indicators as to why the language has shifted (Grenoble & Whaley, 1998). This must be coupled with determining and examining some of the root causes of language loss, which can include official or unofficial national educational policies, colonialism, as well as the impact of the ever-increasing encroachment of global languages, such as English and Spanish. However, one often overlooked and vital consideration has to do with the financial resources of the community itself because many of these approaches, for example, creating pedagogical materials, paying and training instructors, renting a space in which to hold a class, and purchasing digital equipment in the case of documentation require substantial funding. Funding, as I have learned over many years of working in our community, is a crucial concern when one is trying to determine which method to choose to revitalize language. However, as renowned linguist Hinton (2002) has noted, there are approaches such as the Master-Apprentice method that are not necessarily financially burdensome, but that do require commitment on the part of both participants. And, last, but perhaps the most overlooked issue when one is looking for approaches, is *sustainability*. While no approach has this built into its modus operandi, it is crucial to keep it always in mind when one is doing language revitalization

work in any given community. After all, the continuity of an endangered language requires not only intergenerational transmission, but also demands sustainability and consistency if the next generation is to learn its ancestral language. Indigenous communities around the globe are using creativity, inventiveness, innovation, and fierce determination to maintain and revive Indigenous languages. The following is a synopsis (synthesized from Anisman, McIvor, & Jacobs, 2017; Grenoble, 2012; Hinton, 2018; Hinton & Hale, 2001; Hirsch, 2013; Language Nest Handbook for B.C First Nations Communities, 2014; Leedom Shaul, 2014; McIvor, 2003) of the most common strategies being used by communities and researchers alike, but it should be noted that this is not an exhaustive list nor does it take into account all the grassroots initiatives that are being employed.

Documentation and Preservation

Documentation can be seen to be a passive exercise, as McIvor (2003) has asserted, that does not necessarily have the goal to create new speakers, but Hinton (2001) has noted that for many communities, documentation is only a secondary goal to language and teaching and learning. She said, "Preserving a language through documentation is seen to be like pickling something, rather than keeping it alive and growing" (p. 10). However, many communities continue to advocate for preservation activities to safeguard the little that remains of the language before it is too late (Blair, Rice, Wood, & Janvier, 2002; McIvor 2003; Penfield et al., 2002). Some of the most common preservation activities include creating dictionaries, an orthography, CD-ROMs (Morrison & Peterson, 2003), audio-visual material (Schwab-Cartas, 2012), and web-based resources such as FirstVoices™ which is an example of multimedia technology that documents and archives Indigenous languages using text, sound, and video clips (First Peoples' Cultural Foundation, 2003). It is true that documentation alone would not revive or revitalize a language, but this process can create valuable teaching and/or community-based curriculum resources for the future.

Curriculum/Resource Development

This language revitalization strategy in many cases uses materials developed through the process of documentation and it includes the development, expansion, or enhancement of curriculum for teaching an Indigenous language. First Nations scholar Kirkness (2003) strongly believes that the development of a curriculum is a vital process of language transmission. A curriculum refers to a set of lessons or tools used to facilitate language instruction, and may include language exercises, games, drills, flashcards, CD-ROMs, audio cassettes, videos, teaching manuals, books etc.[31] Examples include the Arapaho version of the Disney movie *Bambi* created by Stephen Greymorning (2001). Dene K'ee Gudeh, (the Dene Language)[32] is an app and website that aims to help people learn the Dene Zhatie language, and La Otra Radio in Union Hidalgo, Oaxaca broadcasts 90% of its content in Diidxazá (Zapotec), not to mention countless community activist videos on YouTube.[33]

Immersion and Bilingual Programs (Second Language Learning in Schools)

This is perhaps one of the most effective language revitalization strategies because young children are the best language learners. This will not only give young children the benefit of learning their Indigenous language early, but it is an excellent way to engender a new generation of fluent speakers. It is important to note that immersion programs and practices include many strategies aimed at different age groups, starting with preschool (language nests/summer camps/daycares/ Head Start programs), going on to school programs (kindergarten through grade twelve), and all the way up to adult-focused immersion programs. In all cases, instruction is either fully or for the

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[31] http://www.fpcc.ca/language/toolkit/Language_Revitalization_Strategies.aspx.

[32] https://www.cbc.ca/news/canada/north/new-iphone-app-teaches-dene-zhatie-language-1.1375880

[33] https://www.youtube.com/watch?v=5qiJNFN_FvM

most part carried out in an Indigenous language and the presence of the language is so palpable that children and adults in many cases tend to use it outside of the classroom as well. One of the best- known and well-established programs is Karihwanoron, which is a Mohawk Language program in Kahnawake, Quebec. "Karihwanoron is an alternative learning environment where the children are immersed in a home-environment operated around the traditional festivals and ceremonies" (Karihwanoron Kanienkeha Owenna Tsi Ionteriwaienstahkwa, n.d.).[34] The program goes from preschool all the way up to grade 7 by which stage students have a good foundation and continue on to the Kahnawake Survival School, which offers a balance of Kanien'keha (Mohawk language) and English courses for its students. There are, however, many other examples of immersion schools, such as the Yup'ik language immersion program in Anchorage, Alaska[35] and the T'selcéwtqen Clleq'mel'ten/Chief Atahm School in Shuswap, British Columbia which is a Secwepemc immersion program.[36] In terms of bilingual schooling an approach widely promoted by the Mexican government in the hope of preserving Indigenous languages across the republic, there are several examples, such as the Rock Point Community School of the Navajo Nation in Northeast Arizona (Boseker, 2000), Nemiscio C. Rementeria Primary School in Union Hidalgo, and the first bilingual Cree-English school which opened in Thompson, Manitoba in 2001 (Desjarlais, 2001).

Language Nests

This is an immersion-based approach to language revitalization that originated in New Zealand in 1982 as part of the Māori language revival, known as *kōhanga reo*, which

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[34]   https://www.karihwanoron.com/about_us

[35]   https://www.ktoo.org/2018/08/31/anchorage-school-district-begins-yupik-language-immersion-program/

[36]   http://chiefatahm.com/

was followed in 1984 by the Pūnana Leo, the Hawaiian equivalent. Both programs have been enormously successful in fostering a new generation of speakers. Moreover, "people realized that if families are not using language at home, it would be best to start bringing the language to children as early as possible" (Hinton, 2018, p. 447), which is why language nest programs typically focus on children from birth to five years of age and immerse them in their traditional heritage language in a home-like environment in which children interact with fluent speakers who are most often Elders. The goal of a language nest, according to the Language Nest Handbook for B.C First Nations communities (2014):

> is not to 'teach' children the language, but rather to create an environment where language can be acquired naturally, as infants acquire their first language. It may be useful to think of a language nest as like 'Granny's house' where children are cared for in a traditional, cultural way *in* the language. (p. 5)

There are now language nests all over the world, such as those in British Columbia, Mexico (Meyer & Soberanes, 2009) and in Europe, amongst the Saami people (Olthuis, Kivelä, & Skutnabb-Kangas, 2013).

Master Apprentice Program

The Master-Apprentice language learning program[37] (Hinton & Hale, 2001; Hinton et al., 2002) has been successfully implemented in California as a one-on-one immersion program pairing young people with traditional language-speaking Elders so that they can spend time together exclusively in the language. The program is founded on the notion that people learn a language most effectively when they are fully immersed in the language and culture for significant amounts of time without translation or

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[37] This approach is also known as a Mentor and Apprentice program in some circles such as the First Peoples Cultural Council (FPCC) (www.fpcc.ca). According to the FPCC they renamed it Mentor-Apprentice Program because the term 'Mentor' more closely reflects the mentorship role of the fluent speaker in the First Peoples' Cultural Council's Mentor-Apprentice Program.

reversion to any dominant global language they may speak. In this approach, the master (Elder or fluent speaker) and apprentice (novice of any age) are:

> expected to propose the activities, which may include travelling on the land, berry picking, and other traditional activities; cooking and home chores; shopping; or various types of conversations based on different topics and stimuli. The use of English and writing is strictly discouraged. The apprentice and mentor spend 300 hours per year together. (Jenni, Anisman, McIvor, & Jacobs, 2017, p. 29)

Moreover, this approach uses several language-learning techniques, including Total Physical Response (Asher, 1996), which is a language teaching method that is based on the coordination of language and physical movement. The Master-Apprentice approach is based on ten main points (see Hinton & Hale, 2001, particularly Chapter 17). The following is a summary of Hinton's article entitled Master-Apprentice Language Learning program in Chapter 17 in Hinton & Hale, 2001:

1. Participants/learners should strive to communicate only in their language and avoid English as much as possible.

2. Learners should use an array of nonverbal communication methods to express themselves and this can include actions, gestures, and facial expressions.

3. Masters should aim to teach their apprentices through the use of full sentences and should teach through conversation.

4. Teams should strive to hold all their conversations in the language of instruction at all times, not just during specific instructional periods.

5. It is important to recognize that language is also culture, rather than being a separate entity from it.

6. Teams should focus on developing the apprentice's ability to speak and listen in their language and worry less about writing and grammatical analysis.

7. Activities should be carried out together, to allow for more opportunities for diverse language use.

8. The use of audio and video recordings as an aid to the apprentice is encouraged.

9. Being an active learner is critical to the apprentice's success and approach.

10. It is vital for teams to be attentive to one another's needs, which also means patience with each other and with themselves.

Community-based (Traditional and Cultural Programing)

This approach takes language learners outside the classroom alongside Elders and other community members (knowledge holders) and immerses them in cultural and everyday practices like fishing, planting, weaving etc. while learning the entire process in the Indigenous language that is being revitalized. Language camps have been perhaps the most common way of implementing this method. One of the best examples of this strategy is to be seen among the Keres language planners in Pueblo de Cochiti in New Mexico, who have based their language revitalization efforts around their community's traditional ceremonial practices. This strategy helps to prepare learners to understand and participate in a wide array of community practices, whether it is a ceremony or planting corn, but, perhaps most crucially, it gives them opportunities to participate in real and meaningful communication.[38] This approach shares some similarities with a Master-Apprentice approach in that there is an emphasis on an immersive and embodied experience, which also draws on various language teaching strategies. However, unlike the Master-Apprentice model that focuses on a one-on-one experience, this method is carried out via groups, which bring together participants of varying degrees of comprehension over an extended period of time. This group experience allows participants to bond and to even "become like a family" (Johnson, 2017, p. 121), and this conviviality in many cases fosters a supportive peer group environment and nurtures greater peer-to-peer teaching and learning. Another wonderful example of

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[38] See Pecos and Blum-Martinez, in Hinton and Hale, 2001, pp. 75–82).

this method is the nēhiyawak language acquisition camp, the Cree Language Camp in Saskatchewan founded and coordinated by Cree scholar and speaker Belinda Daniels (see Daniels-Fiss, 2008).[39]

The examples above provide an overview of the general situation of endangered language communities. In the following section I look more closely at the ways in which Indigenous language communities are making use of new technologies as part of these overall efforts.

Technology and Language Revitalization

Technology is a tool, not just a reward for growth and development.

(United Nations Development Programme, 2001, p. 2)

Language Revitalization and Technology

Language revitalization, as many Indigenous peoples, communities, activists, and scholars rightly note, is not a new concern or topic of academic interest (Hermes & King, 2013; McIvor, 2013) and neither is the idea of incorporating technology to aid or supplement pre-existing models of language revitalization and/or to develop new strategies to encourage everyday language use and the preservation of ancestral languages. In fact, as Bennett (2003) noted, the earliest technology to encounter an Indigenous language was the Edison Wax Cylinder in 1890. This technology "provided linguists, ethnomusicologists, folklorists, and anthropologists with the possibility of recording the voices of Indigenous speakers thereby preserving how a language sounds" (Penfield et al., 2006, as cited in Begay, 2013, p. 31). While using technology for language revitalization purposes may not be new, it has garnered an increasing amount of attention in the last two decades, not only from the academic community (Hermes

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[39]   https://saskatoon.ctvnews.ca/video?clipId=404632

& King, 2013) but, most critically, by Indigenous communities who are affected by, and are living through, this crisis (Hermes, Cash, Donaghy, Erb, & Penfield, 2016; Galla, 2016; Lieberman, 2012). Galla (2010) noted that Indigenous communities in the 21st century currently have two choices when it comes to technology and language revitalization: they can resist these tools and allow their language to diminish and eventually fall silent, or choose to adopt technology as a tool for both documentation and revitalization. This is not to say that the adoption of technology is unproblematic, since it presents its fair share of challenges and important factors that need to be considered. In the next chapter, therefore, I outline particular cultural protocols and socio-cultural, economic, and technological issues that must be considered when one is incorporating technology in a process of language revitalization. The perceived relationship between technology and minority languages has changed drastically over the years. "Linguists previously viewed technologies like television and radio as major drivers of language shift—veritable 'cultural nerve gas. Today, by contrast, the role of technology is viewed primarily as a positive, enabling one" (Hieber, 2015, p. 344). This is because, as Galla (2010) noted:

> Technologies among Indigenous communities are seen as one of the effective support tools and/or constraints for language revitalization, maintenance, and promotion… [and] technologies provide Indigenous communities with rich and relevant resource materials. As the surrounding environments change and new technologies emerge, new areas for language use surface. Indigenous communities either choose to expand their language into these new domains, in which dominant languages have taken over or choose not to. The type of domains explored and their particular uses for language revitalization will vary according to the community's language situation, access and availability. (p. 47)

However, before I delve further into the topic of how newer technologies have been and/or are currently being used to renew and support teaching efforts in relation

to endangered languages, some definition of technology is necessary. "The term technology in fact is quite vague, and could refer to anything from hardware to search algorithms, to data formats or user interfaces or many, many other things" Hieber, 2015, p. 346), including what some scholars have referred to as "traditional technology" (Deloria & Wildcat, 2001, p. 58), such as fire, farming and fishing technology like nets, spears etc.

So, what is technology? How is it defined and understood? Dictionaries and scholars have offered a variety of definitions. The Oxford Dictionary (2018) for example defines it as "the application of scientific knowledge for practical purposes, especially in industry"(para. 1). A more comprehensive and perhaps more pertinent definition for the purposes of this exploration of technologies aimed at securing knowledge and language preservation comes from Wikipedia,[40] which defines technology broadly "as the entities, both material and immaterial, created by the application of mental and physical effort in order to achieve some value"(para. 9). In this usage, technology can be envisaged as both a tool and/or a social practice that may be used to solve real-world problems (Bradley & Dyson, 2016). Moreover, this definition also allows for the inclusion of those aforementioned traditional technologies (see Deloria Jr. & Wildcat, 2001), but for the purposes of this study I looked specifically at mainstream (Western/globally designed) technology. Zhao (2003) defines technology as a far-reaching term that can include "a wide range of artifacts, methods, systems, tools, and practices, which extends from low- to high-end advancements" (as cited in Galla, 2016, p. 1137). There are many devices and appliances that fall under the umbrella of technology that are being used by Indigenous communities for language revitalization

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[40] I realize that citing Wikipedia may not be in good form or an always reliable academic source, however in this case I chose to use this quote from Wikipedia because it specifically includes technologies that may not have been considered scientific in nature that have existed in Indigenous communities for hundreds of years. Therefore I felt it was important to include the broadest definition of technology for the purposes of this argument.

purposes, and these include things ranging from wax cylinder recordings to "analog and digital video and audio recording devices, as well as a constellation of computer, mobile, and Internet related technologies [apps], to capture, store, and make available to future generations important aspects of their languages, arts, and understanding" (Oppenneer, 2011, p. 1). It is challenging to narrow down the vast amount of exciting and innovative learning initiatives occurring across the globe. Every month there seem to be new reports emerging about the global potential of mobile learning. The scale of technological innovation continues to grow at an unprecedented speed. Addressing and reconciling the multiplicity of devices and technologies that have been and or are being used by and alongside Indigenous communities would not only be a challenging task, but daunting, and beyond the scope of this project. I therefore focus specifically on cell phone and mobile technology (iPods, tablets, MP3) (see Schwab-Cartas, 2016). Mobile technology includes various mobile devices: (1) highly mobile devices like smartphones, feature phones, and small devices like the iPod touch that can fit into a pocket; (2) very mobile devices like slates, tablets, and netbooks; and (3) mobile devices such as laptops (Brown & Diaz, 2010).

In spite of the increased attention in academia, many linguists, community activists, and scholars (Hermes et al., 2016; Galla 2016; Tzoc, 2016) rightly note that what is known about the role of technology and its impact (positive or negative) on Indigenous languages and communities continues to be very limited and "not extensively researched or published" (Hermes et al., 2016, p. 271). There is an even greater paucity when it comes to investigating the impact of mobile/cell phone technology on Indigenous language revitalization particularly in the context of Mexico, which seems rather odd when one considers the increasing global ubiquity and importance of this device in people's everyday lives, including those of Indigenous peoples. Moreover, Dyson (2016) stated that although Indigenous peoples have been left out of what has been written on mobile phones and the mobile revolution, they are, in

fact, an integral part of shaping this revolution in their use of many mobile technologies and applications to bring their nations and communities into the 21st century. This, therefore, raises some important questions. Why choose cell phones or mobile technology as opposed to other technologies? How are local Indigenous communities using cell phone or mobile technology in the maintenance/revitalization of endangered languages? What are the benefits and the potential drawbacks of using mobile technology? Here I provide some examples of various applications of mobile technology as tools for language revitalization and learning, such as texting, apps, internet/websites, and online dictionaries that are being used in Indigenous communities in North America as well as throughout the world.

Why Cellphones/Mobile Phones?

The global ubiquity of cellphones has increased exponentially over the last three decades. MacDonald (1979) originally coined the term cellphone after the networking systems observed in cellular biology and he modelled the mobile telecommunication system we know today on the way in which a system of cells is configured in the body. He had the foresight to advocate for a mobile system that was affordable, accessible, portable, efficient, and able to adapt to user demands. Today, MacDonald's ideas have materialized. The coverage offered by the global mobile network in 2013 was estimated to be 96% (World Bank, 2015) and 97% of people—that is over 7 billion—have a mobile cellphone subscription (ICT, 2015). The director of the International Telecommunication Union (ITU), Sanou, has dubbed this almost 100% global saturation of mobile phones/technology the "mobile revolution" (ITU, 2013, para.4). Dyson (2016) further explaicates this revolution by asserting that that:

> The explosion of mobile devices and applications in Indigenous communities offers the potential to address issues of geographic isolation, build an environment for learning and sharing of knowledge, provide support for cultural

and language revitalization, and furnish a means for social and economic

renewal. (Dyson, 2016, p. 1)

Despite the ITUs declaration of the mobile revolution, access remains disproportionately distributed based on location and socio-economic status. Cellphone use and the mobile broadband network continues to experience steady market growth (ICT, 2015; Mobithinking, 2013). However, Dyson (2016) claimed that the mobile revolution is not predicated only on the number of cell phone users, but, rather, it "represents a fundamental shift in nature of people's access to ICTs [Information and Communication] as a whole" (p. 4). Accessibility, as Dyson noted, is a critical issue that cannot be understated, and unfortunately many urgent projects in Indigenous and rural communities, particularly communities in the Global South, as I know first-hand (Schwab-Cartas 2012) have been hindered and rendered unsustainable simply by not having access to technology (Schwab-Cartas & Mitchell, 2015) or what some would describe as being part of the digital divide. This phrase is used to describe the growing gap and inequalities between the information rich (typically anyone in the developed countries of the Global North), and those who are information poor (UNESCO, 2003) (typically those in the Global South, like, for example, Indigenous peoples). However, it has been over 20 years since the birth of the term digital divide, and, as many scholars (Carpenter et al., 2016; Ginsburg, 2009; Liberman, 2013) have noted, the term was meant to focus well-intentioned concern on such inequities. The term has since received a great deal of criticism for its empty rhetoric and neo-developmentalist (Ginsburg, 2009), paternalistic perspective. Carpenter and her collegues further note that this paternalism attached to media usage in the global South comes with:

The underlying assumption that it is in the hands (and at the grace) of richer

societies to initiate technological development 'on the other side of the divide'

fails to critically address the deeper systemic social injustices that are embedded

in technological developments. Moreover, the trickle-down model (from top to

> bottom, rather than anything more horizontal, let alone bottom to top) remains an inappropriate and unfortunate metaphor to describe how community development actually works. (Carpenter et al., 2016, p. 10)

And as they and others (for example, Ginsburg, 2008) point out, "embedded in this discourse is the entrenched belief that Indigenous peoples and other marginalized communities from the South Bronx to the global South are simply waiting endlessly to catch up to the privileged West" (Ginsburg, 2008, p. 130). However, mobile technology, as Dyson (2016) has argued, offers Indigenous peoples and other people on the margins a means of overcoming this digital divide that has precluded them from actively participating in the digital revolution on their own terms. Moreover, with the advent of mobile technology Indigenous peoples, particularly in the Global South, went from having virtually no access to ICTs to having them (Donner, 2008). The radical transformation has been referred to as the "leapfrog phenomenon … whereby communities on the wrong side of the digital divide skipped a whole generation of fixed technology" (Castells et al., 2007 as cited in Dyson, 2016, p. 3). This is in large part due to its affordability as well as 'pay as you go' plans that provide poorer mobile phone users with the opportunity to budget and recharge their phones whenever they can (Skuse & Cousins, 2009) so that this technology is no longer accessible only to the wealthy. Coupled with multifunctionality, the user-friendly interface of mobile technology has converted this technology into a viable substitute for other ICTs and technologies. Moreover, the appeal of mobile phones "is the fact that people with often limited incomes are prepared to purchase mobile devices and fund their use, even where there are alternative avenues of ICT access, demonstrates the attraction of this technology in enhancing Indigenous personal autonomy" (Dyson, 2016, p. 5).

Unfortunately, many language and cultural revitalization/affirming projects using non-mobile technology, whether directed by Indigenous communities themselves or academics working alongside Indigenous communities, were formerly limited to

one or two particular technologies at a time. For example, there were voice recorders (Hinton, 2001; Nathan, 2006; Voegelin, 1950) audio-visual aids (Corbet & Kulchyski, 2009; Edwards, 2009; Turner, 1992), personal computers (PCs) with Unicode adapted keyboards that allowed for the inclusion and development of a wide range of Indigenous language fonts (Donaghy, 1998; First Voices Cultural Council, 2012), and bilingual CD-ROM software, such as the one created by the Rosetta Stone's Endangered Language Program, and the Mohawk language CD-ROM, Tsi Karhakta.[41] I will return to the issue of accessibility, because many of these devices (PCs, video cameras, digital voice recorders etc.) were either unaffordable, user-unfriendly, or unavailable, all of which meant that typically the linguist or researcher would bring these into the community and thus create and maintain an uneven power dynamic between the researcher and the researched as well as making the community dependent on the researcher to bring the equipment which, in turn, again contributed to this uneven power dynamic. I discuss this in greater detail in **Chapter 4** and explain why I chose to use mobile technology as a more sustainable and equitable form of equipment to use in communities.

Nowadays, the user or researcher is no longer bound to single purpose technology given the arrival of mobile technology, particularly when it is coupled with 3G (third generation, internet enabled) service which provides internet access and mobile broadband. Cellphones are the amalgamation of several devices into one multifunctional internet enabled device (see Stald, 2008; Wilken & Goggin, 2012) that allows Indigenous peoples "to voice and video call, text message, engage in social networking, Internet browsing, check TV and sports results, music and movies, photograph, sound and video recording, contact lists and calendars and the no-cost short-range file sharing platform Bluetooth" (Dyson, 2016, p. 6).

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[41]   https://www.rosettastone.com/endangered

Figure 3.1. The convergence of multiple media on one device.

The convergence of multiple media technologies in one mobile device has altered the role of the cellphone (see **Figure 3.1**), according to Stald (2008), from a:

> being only a medium for interpersonal communication to incorporate multiple forms of information exchange at a user level as well as at a technological level: peer (mobile) to peer (mobile/ Internet/Messenger) citizen to institution and vice versa, mobile to PC/internet and vice versa, employer to workplace and vice versa. These expanded technological potentials facilitate a much more extensive range of uses and hence meanings. (p. 145)

Indeed, cellphones have pervaded almost every aspect of our lives. Therefore, it is perhaps not surprising that Indigenous people and communities and researchers are looking at how cellphones can be incorporated into their communities and or research processes for language revitalization and learning purposes.

How and why are cellphones and mobile technology being put to use for language revitalization purposes? Galla (2016) has cogently declared that "it is difficult to imagine the survival of Indigenous languages in the twenty-first century without the intervention of digital technology" (p. 1137). This is because many Indigenous youth in the 21st century are growing up in increasingly multilingual, multicultural, and multimedia environments where indigenous languages "no longer exist in isolation, but rather are supported by a multitude of technologies" (Galla, 201, p. 1144). Moreover, Indigenous communities around the globe are, as mentioned earlier, both an integral part of the mobile revolution (Dyson, 2016) and avid users of mobile technology. This is particularly true of many Indigenous millennials who are growing up as digital natives (Prensky 2001) or what Hermes et al. (2016) refer to as "Native digital natives" (p. 285) in Indigenous contexts. Millennial teens are a digital native generation, "for whom digital connectivity seems to be something they were born into rather than something they had to work to acquire" (Hermes et al., 2016, p. 287). They do not have to acquire familiarity with digital systems as adults; for Prensky (2001) such adults are what he thinks of as digital immigrants. This digital native generation grew up with technology and are voracious early adopters of various forms of technology, but mobile technology is perhaps their principal mode of communication and a vital part of their everyday personal identity (Stald, 2003) and of their everyday media ecology/technoscape (Appadurai, 1990). According to Morrison (2015) the average mean time spent by most millennials using technology in a given day is 17.3 out of 24 hours with smartphones taking up 6.3 hours. This, of course, varies depending on context and access/ connectivity, but the point here is that youth or digital natives, whether Indigenous or not, are spending a great amount of time on their mobile devices. However, several scholars, such as Penttonen (2011) assert that communication technologies can present several oppurtunities for endangered languages such as:

   1) communication affordances for geographically-distributed language

communities; 2) the ability to widely distribute cultural and new media, as well as learning materials; 3) and the opportunity to improve the prestige of the language encourag[ing] the younger generations to keep the language [and attracting others] to learn the language. (Penttonen, 2011 quoted in Lackaff & Moner, 2016, p. 24)

Indigenous communities understand that language and local practices are at the root of language acquisition, and that youth are key stakeholders in whether a language is used and passed down. They also recognize both the ubiquity and importance of mobile devices among the members of this younger generation, which is why many communities understand that there is a serious need to adapt language and local practices to fit the needs of new generations such as millennials, who are future speakers of an autochthonous language. While in many ways these adaptations are part of a continuous process that Indigenous languages have been undergoing for millennia, the effects of colonization mean that the present efforts are also quite distinct from the past. In fact, the term revitalization itself clearly distinguishes the present need to confront the loss of culture, population, and language. As a result, many Indigenous communities concerned about the future of their language and culture are turning to technologies, such as mobile devices, because doing so "has the potential to bring together youth, who are digital natives, and elders, who are language and cultural knowledge holders, to work collaboratively on language projects, allowing for a remarkable opportunity for the language community" (Galla, 2012, p. 64). An important caveat here is that no technology is or can be a replacement for an Elder or for a direct face-to-face embodied engagement with a language or an ancestral practice, but is, rather, a supplementary tool. For example, an online dictionary app in an Indigenous language can provide the learner with a word, but only an Elder can explain its significance, illustrate the proper context in which it is used, and also check the pronunciation of the word. Nevertheless, technologies can and are being harnessed to

create culturally relevant and age-appropriate educational media for younger generations.

Now that I have addressed some of the reasons why Indigenous communities are turning to mobile technology to revitalize language and culture, I will address how Indigenous communities are using it to perpetuate language and culture.

Applications and Uses of Cellphones for Language Revitalization/Learning

The convergence of multiple media technologies in one device also means that there is a multitude of applications and uses for this particular technology, which is far-ranging, from simple audio recording to M-learning (Mobile learning) (Mahanna & Capus, 2012), when it comes to language revitalization. Since I survey a broad sample of the many ways in which mobile technology is being used by and with Indigenous peoples and communities (in the USA, Canada, and Mexico) I will use the very helpful schema of Hermes et al. (2016). Although they used this to survey an array of various types of technology, such as PCs, among others, in the context of the US and Canada, I think it can be applied here too. Although they state that these are "artificially distinct" categories that will at some point be outdated, the schema nevertheless allows us to navigate the multitude of mobile uses in a more structured manner, which will allow for greater clarity on the topic. The categories for Hermes et al. (2016) are:

1. **Documentation**,
2. **Language-enabling technologies** (fonts, keyboards, Unicode);
3. **Communication and information technologies** (e.g. email, social networking, databases) and
4. **Technologies that support language acquisition** (apps and M-Learning).

However, I must point out that these categories are by no means fixed or bound and, in fact, overlap because of the multifunctional nature of mobile technologies. For example, documentation and communication and information technologies such as YouTube allow the users to upload and archive what they have documented.

Documentation

When it comes to language revitalization, most technology, whether voice recorders or audiovisual equipment such as camcorders or smaller digital cameras, has been used for documentation purposes. This is no different when it comes to cellphones. Mobile devices such as smartphones or iPad Touches now provide the user with the ability to photograph, audio- and video-record events in their everyday lives. In fact, documentation/personal documentation has become a major social activity among the everyday mobile phone users (especially youth) who tend to use mobile phones as personal mobile logs (Stald, 2006), recording via picture (selfies), sound (audio recording) and video (Snapchat/Instagram) their everyday experiences, whether it is watching a child's first steps or an interesting event, or recording an Elder speaking an Indigenous language (Schwab-Cartas, 2016). Because of their inherent portability and the fact that mobile devices such as cellphones are almost always on one's person, unlike other portable devices (such as pocket-sized digital cameras which have, in some ways, become obsolete because of the ever increasing picture/video quality of cellphones), they have "become a key tool for capturing moments, storing information, and documenting experiences" (Stald, 2006, p. 157). "Furthermore, the multimedia function allows for greater spontaneity and individuality of Indigenous media creation" (Dyson, 2016, p. 10). No longer is the community bound to one communally shared device typically brought in by an outside researcher. Now, with the ever- present cellphone, Indigenous communities can challenge once homogenous representations of their communities, adding personal nuances on important issues such as language loss, for example. The diversity of perspectives that can exist on this topic can now be represented, used to contribute to the conversation, and/or facilitate dialogue that can result in a possible strategy. In addition to this, as Brady and Dyson (2016) noted, the multimedia features of mobile devices are also a close fit with traditional Indigenous strengths, such as oral practices (song, music, storytelling, and ceremony) as well as

visual expressions (painting, gastronomical, farming, and weaving practices) thus allowing Indigenous peoples to document and store knowledge and language. Aikuma, for example is a free (open source) Android mobile app "designed to allow speakers to record and translate their own language on their own schedule and terms, while providing useful structured linguistic data for future research and development" (Lackaff & Moner, 2016, n.p). However, as many scholars (Hinton, 2001; McIvor, 2003; Perley, 2012) have noted, documentation alone cannot save a language, but it can be a great resource used to develop curriculum and teaching material, while also adding to fostering language transmission to future generations (Littlebear, 1996). Furthermore, documentation quite often overlaps with social media because of the Internet-enabled capabilities of cellphones that allow everyday Indigenous citizens and youth not only to document their languages and or Elders' practices autonomously, but also to use their audio-video capacity to create innovative language learning content that can easily be shared via social networking platforms for language learners to use and support their language learning journey (Kraal, 2013).

Language Enabling Technologies

Just as documenting one's everyday life via selfies and videos has become a cornerstone of mobile usage, so has text messaging (like WhatsApp) that has, in fact, "become one of the primary means of communication among adolescent peer groups" (Skierkowski & Wood, 2012, p. 744). For example, adolescents in the Southern Mexican state of Oaxaca have been texting in Huave, a language spoken by less than 15,000 in the Isthmus of Tehuantepec region (Couture, 2011). However, as Hermes et al. (2016) critically pointed out, the choices made by linguists when creating orthographic systems has and continues to have profound effects for many Indigenous language speakers, advocates, and educators to use computer and mobile technology. Mobile devices, as Lackaff and Moner (2016) noted, shape language use differently from personal computers. They

further point out that input interfaces (predictive text and spell correct) on mobile phone devices are designed to support global languages/dialects, but not Indigenous or minority languages, which presents a major challenge for minority language users (Lackaff & Moner, 2016). It should be noted that iOS devices, iPads, iPhones, and iPods have included Cherokee syllabary since 2010 (Kemper, 2015). This is because not all Indigenous languages use the Latin alphabet; take for example Aboriginal syllabic writing, which is a family of *abugidas* (writing systems based on consonant-vowel pairs) used to write a number of Indigenous Canadian languages like Cree and Inuit. And even though Indigenous language orthographies, such as Huave, use the Latin alphabet, many still require diacritic punctuation that is not standard on cellphones. However, FirstVoices, a digital technology initiative based in British Columbia and administered by the First Peoples Cultural Council, was created to support both endangered and Indigenous languages in Canada and has sought to address this issue of limited texting capabilities among Indigenous languages by creating a mobile keyboard app. The FirstVoices Keyboard app (compatible with both IOS and Android systems) allows Indigenous-language speakers to text and email, while FirstVoices chat was developed specifically for youth wanting to communicate on social networking sites such as Facebook and Google Talk in their own language (Brennan, 2012; Carpenter et al., 2016). The app allows users to select from more than a hundred languages spoken in Canada, the United States, New Zealand, and Australia. Brennan (2012) notes that "[t]he keyboard includes the characters necessary to write in, say, Cree, and follows a layout unique to the chosen language (Cree's equivalent of qwerty would be ᐃᐧᐅᐱᕿ). But the keyboards cannot exist outside of FirstVoices's app" (A lifeline for endangered languages, para. 2).

Online dictionaries that range from basic definition to translation all the way up to speaking dictionaries, are another great resource that can be both language enabling and supporting and, like documentation and social media sites, this blurs the line

because it can be used for both communication and pedagogical purposes. There are several excellent examples that can either be accessed via a website such as the Lakota dictionary[42] or the Nahuatl Dictionary[43] to name two examples. However, Didxazapp[44] is a free app that allows users to translate Spanish directly into Isthmus Zapotec, therefore enabling the user to both find and learn a word in Zapotec/Diidxazá and, at least potentially, use it while texting or speaking. This app was developed by Gonzalo Santiago Martínez, a 22-year-old Zapotec youth from Juchitan de Zaragoza, Oaxaca, México. This is just one of several examples of how Indigenous youth are using their technological skills to contribute towards language learning and revitalization efforts, while also demonstrating their understanding of the importance of mobile devices as a medium through which to facilitate this type of learning and communication.

Communication and Information Technologies/Social Media/Interactive Media

Communication and information technologies or social media are commonly referred to as interactive media (Begay, 2013) and can include a host of various platforms from language websites and computer games to social networking websites. They consist typically of the amalgamation of audio, video, text, and graphics as well as assessment components (Begay, 2013; Eisenlohr, 2004; Hermes et al., 2016; Hinton, 2001; UNESCO, 2003; Warschauer, 1998). Interactive social media allow the everyday Indigenous citizen to create, share and store/archive content (Burkholder, 2016) that can be directly and or indirectly connected and that can address language revitalization. Such contributions could be anything from social media posts or citizen journalism, which "can raise awareness of language loss crisis affecting a particular community, while also addressing social exclusion, potentially reduce discrimination, and restore

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[42] http://www.lakotadictionary.org/nldo.php

[43] https://nahuatl.uoregon.edu/

[44] https://play.google.com/store/apps/details?id=com.SimplesoftMx.Didxazappv2&hl=en

human dignity and rights" (Kim, Alfaro, & Gilbert, 2012 as cited in UNESCO, 2003, p. 15). For an example of what I would refer to as an indirect contribution to the efforts of language revitalization.[45] Here, people are using social media platforms to raise awareness of the issue of language loss and its effect on Indigenous communities, but there is not one specifically dedicated to creating teaching and learning (pedagogical) resources. Other possible uses of interactive media can range from anything like "crowd sourcing, publishing in open access databases, uploading videos/pictures, creating pedagogical content, and even bank transactions" (Tzoc, 2016, p. 143). The most commonly used social media sites/platforms currently being used are Facebook, Twitter, YouTube, Wikipedia, and Soundcloud, to name a few of the more mainstream ones. Endangered-language communities, as Hermes et al. (2016) have noted, are using these social media sites as (1) collaborative initiatives with universities, NGOs, or research/philanthropic organizations, of which one example is Living Tongues[46] "(2) community centered initiatives; (3) Individual and or collective activists[47]" (p. 275).

Aprendiendo Mixteco, a Facebook page[48] is one of many existing examples of how youth and everyday Indigenous citizens are embracing and using social media platforms to "establish public pedagogies and personal identities" (Hermes et al., 2016, p. 275). The page, which has over 6000 members, was developed by a Mixtec (Indigenous from the Mexican state of Oaxaca) youth with the purpose of "*Promover, preservar y fomentar el Tnu'u Savi a través de plataformas del Internet para hacer visible la presencia de la lengua en todos los lugares*" (Promoting, preserving, and foster the Tnu'u Savi language through Internet platforms to make visible the presence of the language in all places). The page, therefore, has a series of pedagogical materials in the form of

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[45]   https://www.facebook.com/LPPLR/

[46]   https://livingtongues.org/

[47]   https://twitter.com/IndigenousTweet

[48]   See: https://www.facebook.com/aprendiendomixteco/

videos to which a learner can listen to hear the pronunciation of words, and flash cards with basic salutations, numbers, and colors. It also promotes culturally affirming items such as t-shirts with positive affirmations like "I want to learn Mixtec" in the Mixtec language. Beyond the obvious pedagogical uses and benefits of the material created and uploaded, and the fact that an everyday user can now create a stage from which to reach thousands of users, is that these social media sites are also meant to foster dialogue among their users. Users do this by leaving comments and/or feedback, which, in many instances, help to validate this language learning initiative, and this, in turn, also helps spur the creation of additional material that can be uploaded. But beyond accolades, comments and feedback also serve the critical function of encouraging peer-to-peer learning and dialoguing among youth and other language learners, allowing them to ask questions and/or help contribute to the uploaded material, while also promoting learning outside the traditional classroom setting (Camus, Hurt, Larson, & Prevost, 2016). This serves to create a type of virtual speech community, "a constructed immersion setting where members of the speech community meet, interact and communicate in the native language" (Buszard-Welcher, 2001, p. 342). Another example of an interactive site being used for the purposes of Indigenous language revitalization, promotion, and continuance is the Mi'gmaq Language group[49] interactive language learning website. This is perhaps one of the most comprehensive websites in that it uses every social media platform and application available, such as blogging, talking dictionaries, Facebook, Instagram, Tumblr, Twitter, and Wikipedia "to help language learners understand and speak the Mi'gmaq language in whichever platform or combination that best serves them" (Carpenter et al., 2015, p. 16). The casting of such a wide net may also help to sensitize Mi'gmaq speakers to the fact that there are indeed many options for speakers and communities to engage with social media in ways that

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[49]   http://www.learn.migmaq.org/

reflect their cultural needs and goals. Also, by participating in these platforms they can continue to determine how social and interactive media enters or is used by the community.

Language Acquisition Supporting Technology

When it comes to language acquisition mobile technology, this can, of course, include social media platforms such as the ones mentioned above, but it can also include the development and use of specific mobile apps for the purposes of learning. Apps are now seen as part of a larger phenomenon known as mobile learning (M-Learning), which is a "new type of learning based on mobile technology where students can follow up their education *anywhere, anytime,* and in any *form* using their mobile devices" (Mohanna & Capus, 2012, p. 315). Simply put, M-Learning allows the user to obtain and/or provide pedagogical content that can be accessed on mobile devices, smartphones, iPods, and tablets, for example. The pedagogical content of many of these apps includes quizzes that incorporate flashcards, phrasebooks, and talking dictionaries to teach and test vocabulary while the more advanced ones include speech detection software that can test pronunciation, such as Duolingo (Begay, 2013; Godwin-Jones, 2011; Kim, 2008; Stockwell, 2010). The advantage and benefit of this type of learning via an app is that apps are a great way "to jump-start learning, to reawaken what can be heard, to allow for private practice, to focus on particular confusing conjugations or to investigate unknown constructs or appropriate registers" (Hermes et al., 2016, p. 276).

Figure 3.2. YALAM interface and available Indigenous Mexican languages.

There are, of course, numerous examples of applications that have been developed and designed by and alongside Indigenous communities specifically to revitalize endangered Indigenous languages. In fact, much can be written on the multiple applications that have been developed and are being used, the potential benefits, and the impact on language learning among its users. One such example of an M-Learning app is the recently developed app known as YALAM[50] which is Mixtec for language (see **Figure 3.2**). This particular app was developed by youth at the University of the Valley of Oaxaca, Mexico, who saw a need for such software to support Indigenous

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[50]   https://play.google.com/store/apps/details?id=com.felix.seittu.yalam&hl=en

languages in the region, which is why they included all 16 languages found in the state of Oaxaca (Amuzgo, Cuicateco, Chatino, Chocholteco, Chontal, Chinanteco, Huave, Ixcateco, Mazateco, Mixteco, Mixe, Náhuatl, Triqui, Tsotsil, Zapoteco, and Zoque), making it unique. Each language is represented by either men or women in traditional regalia associated with the particular language group or community. Apart from the fact that it is most affirming to see oneself represented, this app is also inclusive of non-literate learners. Moreover, the app tests the learner through a series of flashcards that are coupled with audio, while also providing information on the language, region, and statistical use of the language in a given community. However, while the app does include all 16 languages spoken in Oaxaca it is difficult to include the multitude of variants/dialects of each of these languages. For example, Zapotec has close to 64 distinct and at the same time mutually incomprehensible dialects (de Korne, 2016), which is, of course, a problem faced by many who are developing apps for such purposes. Nevertheless, it is a wonderfully illustrative example of how mobile technology is being designed and used to support Indigenous language acquisition.

There are many available language learning apps on the market, such as Tusaalanga[51] an Inuktitut language learning app that allows the user to select one of five different Inuktitut dialects and that also includes an extensive syllabics and sounds charts that helps the user to break down the pronunciation and master the syllabics, as well as lessons centered on recorded and transcribed dialogue. My Cree[52] is an interactive flash card app that allows one to learn Plains Cree. It has four components: 1) a pronunciation guide, where one will find a letter and an audio file attached to the letter; 2) Words, which includes a variety of word categories such as Food, Seasons and Weather, Friends and Family, Animals, Greetings and Feelings and More Words, and also includes Activities (sports and other fun things); 3) a phrases section that allows users to practice

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[51] http://www.tusaalanga.ca/splash

[52] http://tansi.tv/mycree/

their Cree and to learn phrases they might want to use in their everyday life; and 4) Cree music. All this helps learners become familiar with pronunciation and is also a fun way for people to learn and immerse themselves in this particular language.

Technology as a Double-edged Sword: Benefits and Drawbacks

Mobile technology and technology in general with Indigenous communities is quite often described as a double-edged sword that raises questions about potential benefits and drawbacks. It is true that mobile devices and ICTs "are powerful tools that offer opportunities to link Indigenous communities, even in the most remote regions, to each other and to the rest of the world" (UNESCO, 2003, p. 6). Internet-enabled mobile technology has afforded Indigenous peoples unprecedented access that has raised awareness of this crisis, and the ability to create, share, and dialogue with other communities facing the same plight. In other words, Indigenous peoples around the world have crossed that so-called digital divide (Dyson, 2016). This has led, as we have seen, to the creation of remarkable applications such as language learning apps that allow one to learn, listen, and even read Indigenous languages anywhere in the world. However, as, for example, UNESCO (2003) has noted, some obstacles to connectivity still remain such as "poor or [or absent] basic infrastructure (electricity, hardware etc.), high costs, inadequate bandwidth, or poor, unreliable service and limited budget allocations for IT maintenance and lifecycle" (p. 6). Another socio-technical challenge includes the actual design of mobile devices that are not designed with Indigenous peoples and languages (including other minority languages, such as Welsh) in mind. For example, SMS (texting), predictive text, and spell correction are designed with majority or global languages in mind. Texting in Zapotec, for instance, requires multiple accents and consonants in a row that the autocorrect feature will see as a typo and will try to correct. Of course, there is the option to just shut autocorrect off and there are, as mentioned earlier, third party keyboards that provide greater functionality, such as the

one designed by FirstVoices, but this is not the case for all languages. Despite critical interventions such as the FirstVoices keyboard that adapts Indigenous languages to digital platforms, the fact remains that digital media and mobile devices are designed to cater to a mainstream global language-speaking and oriented market and, as a result, as Cunliffe and Harries (2005) found, bilingual communities and minority language speakers and learners were more predisposed to gravitate towards majority (global) languages. This, of course, continues to affect the health of Indigenous languages.

Furthermore, these devices not only bring with them global languages such as English and Spanish, but also mass media and popular culture, all of which can cause inevitable clashes with local traditions and further increase the dominance of Western-based modes of thought, culture, and learning strategies that can replace or overshadow traditional sources of knowledge such as Elders and embodied practices (Liberman, 2012; Oppenneer, 2011; Schwab-Cartas, 2016; UNESCO, 2003). Moreover:

> a 2015 study by cyber-security company, Kaspersky Lab, entitled 'The rise and impact of digital amnesia[53]: Why we need to protect what we no longer remember, ultimately found that many of us struggle to recall memories that we store in digital devices. The evidence was found across all age groups and equally among both men and women[54]. (The rise and impact of digital amnesia, para. 3)

This is already having serious implications for the way Indigenous youth are learning and experiencing ancestral languages and cultural practices, but it can also affect whether or how knowledge is transferred or passed down to post-millennials, for example. Another concern in relation to the effects of digital media and technology on communities is that despite the apparent and increasing democracy afforded by digital

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[53]   https://www.cbc.ca/news/technology/digital-amnesia-kaspersky-1.3262600

[54]   http://www.magazinestoday.co.nz/digital-amnesia-internet-killing-memory/

media and mobile devices, the information, as Liberman (2012) has noted, continues to flow from North to South, and the South-to-South flow of information among Indigenous groups in neighboring countries is not yet flourishing as well as it might.

Other negative effects that come with mobile devices include the compulsion of users to share on social media their videos, pictures, and other intimate aspects of their lives or communities. Because of the fleeting and banal nature of social media platforms, youth are not always as reflexive or conscious of the possible effects of what they are sharing (Lasén & Hjorth, 2017) as they might be. This has also raised the important concerns about intellectual property rights and the ramifications of posting or sharing recorded information on the web or on social media platforms (Tafler, 2000). The problem, as Corbett and Kulchuski (2009) have argued, is that material shared on these social media platforms is typically considered public, which means that there is very little control in place to deal with how material is used, reused, or even interpreted. For example, it could be remixed and used in pantomime and racist blather, or even be used against the community in such disputes as land claims with lawyers from the government trying to disprove continuing land use. Also, such material could leave a community vulnerable to cultural and knowledge theft or appropriation. Another related and critical issue that Corbett and Kulchuski (2009) have brought up is that information and knowledge are not one and the same; much of what is posted on the web or on social media sites can be categorized as information, or data that is "inert, transient and often self-indulgent" (p. 7). Knowledge, however, is rooted in place, and "infused with values, beliefs, skills, attitudes and practices of those who have it" (Panos, 1998 as cited in Corbett & Kulchuski, 2009, p. 7). And, of course, there are also the more universal, but significant concerns that come with using mobile devices and social media sites such as cyberbullying (Agatston, 2008; Kowalski, Limber & Patchin, 2009) and sexting (Hua, 2012; O'Keeffe, & Clarke-Pearson, 2011) not to mention the creation and use of fake apps that enable these cyber behaviors and make youth susceptible to

online predators. Despite these negative consequences that can come with using mobile media, I still concur with Mohawk scholar Kenneth Deer (2012) who stated that it is critical for "Indigenous peoples to take part in the information society on their own terms and on the basis of their cultural backgrounds, to be able to shape their future without risk of losing their cultures and identities"(UNESCO, 2003, p. 6).

Summary

In this chapter I highlighted, first, that language revitalization is a key aspect of addressing Indigenous issues, and, second, that it is absolutely critical to raise awareness among everyday Indigenous users of the potential long term implications of using mobile technology and social media platforms and to try to develop community safety guidelines and protocols as well as to raise ethical awareness of what content can and cannot to be shared outside of the community. The numerous issues I raised in this chapter are by no means exhaustive or exclusive to any one community, which is why the process of developing guidelines alongside community members has to be ongoing and must constantly be adapted to allow for new forms of social and digital media and for differing contexts. In the next chapter I consider the implications of this work for the Zapotec language.

4

Methods for Collectively Foraging a New Path between Past, Present and Future

Ni chigueeda guixhí ne huidxe láninga' cayunidu' nagasi
(The future is what we make of it today) .
Zapotec proverb

Hope is not a passive thought; it is a call to action.

John-Paul Flintoff (2013, p. 52)

With the advent of the Internet, social media, and ubiquitous digital devices, Indigenous communities are targeted more than ever by economic and cultural forces of globalization and neoliberalism. Indigenous cultural activists and academics are recognizing the urgent need to combat the silencing and loss of their cultures because of the domination of English and Spanish productions in the global mediasphere. The study of Indigenous languages provides an insightful, cross-disciplinary entryway

into how these communities are responding to global forces and adapting new digital/ mobile tools to defend their traditional lifeways (Schwab-Cartas, 2016). In this chapter, I outline how I used cellphone technology through participatory workshops to engage youth in my Indigenous community of Union Hidalgo, Mexico, in an intergenerational dialogue about preserving our Zapotec language and ancestral practices. In these workshops I used a multifaceted approach to cultural survival by combining Indigenous Zapotec cultural and technological elements with traditional knowledge and practice to create Zapotec-centric media. Especially among our youth, the process of media creation is just as important as the final product in stimulating interest in and focus on the language and cultural practices that give us a sense of self and identity and connect us to our homeland.

To root my study squarely in my community and context, I based it in two distinct but complementary methodologies. *Comunalidad* is an Indigenous Oaxacan methodology and practice and multi-vocal community process that is rooted in a commitment to strengthening the future of communal lifeways (Luna-Martínez, 2010; Rendón Monzón, 2003). More specifically, *comunalidad* manifests within a Zapotec worldview or cosmovision in asserting local strategies that engage cultural praxis such as making *gueta bizaa* (black bean tamales), planting corn crops, or doing other embodied ancestral Zapotec practices in a process quite distinct from that of a classroom- and curriculum-based approach. The bridge to this experience for our young digitally literate generation is the second methodology—the use of cellphilms, informed by the techniques of participatory video research. At the intersection of these approaches, our workshops took the form of creating storyboards about traditional practices, using the Zapotec language, that would lead to the creation of short video documentaries that used the mobile technology that was already available in Union Hidalgo. We have come to call this approach that merges cellphilm and *comunalidad* the DIY participatory video approach (Schwab-Cartas, 2012). The main feature of this

approach brings together youth and Elders in our community for engaged learning through praxis and has resulted in an informative dialogue about the impact and opportunities presented by new technologies and the ways in which these can support the transfer of Indigenous ancestral knowledge, language, and embodied practices in the 21st century.

Hra bizuluni' | The Beginning
Entering the/Our Community

Before I outline the approach/methodology used in this project, I want to preface it with a brief personal narrative and explanation of context to present my journey and the collaborative process that gave birth to this project and methodology. A preface is a useful device (Kovach, 2009), particularly in Indigenous writing, because it encompasses essential information that will allow the reader to make sense of the story to follow. It also structures a space for introductions as well as providing a bridging function for non-Indigenous readers. "It is a precursory signal to the careful reader that woven throughout the varied forms of our writing—analytical, reflective, expository—there will be story, for story is who we are" (Kovach, 2009, p. 4). Following Nicholls (2009), I tell my story reflexively throughout this dissertation and share my perspectives as a biracial insider/outsider and a Zapotec-Austrian-Canadian activist/ researcher, and my personal process of what Colorado (1988) refers to as "coming to the knowledge" (Colorado, 1988 as cited in Gaudet, 2016, p. 75). I share (and reflect on) this story of coming to knowledge to acknowledge the fact that this methodology was collaborative and reciprocal in nature and that it flowed from Zapotec and Indigenous values "such as community accountability, giving back, and benefiting the community." It also demonstrates that "the researcher is a helper committed to doing no harm" (Battiste & Henderson, 2000, p. 48). Moreover, the observations shared in this chapter are based on my many years of being in our community as a member of a

media collective, coupled with personal experiences of language loss among my friends and members of my own family, and of having intimate conversations with youthful members of the community and with Elders. These conversations were critical to my understanding of the current state of Zapotec in our community because I was exposed to many different generational perspectives, all of which came with their unique and specific understanding of issues and factors surrounding and contributing to language attrition in our community. It is not that I ever conceived of language loss as a facile teleological equation of youth simply abandoning their autochthonous language and gravitating toward global languages, or of our community sitting idly by, losing the race against time while watching the passing of our Elders. My commitment to learning and revitalizing the Diidxazá language in the community was really cemented with the experience of language loss in my own life upon the death of my *bixhoze bida* (grandfather). With his passing, our family and our community lost not only one of the few fully fluent speakers of Zapotec but also a wealth of cultural and local historical knowledge. The birth of my daughter further strengthened my commitment to language revitalization by making me realize the urgency of finding new methods and approaches to secure our Zapotec way of life and language for future generations.

I did struggle to articulate this methodology and the process of conceptualizing it, in part because this approach to language and cultural revitalization had very humble and somewhat unorthodox beginnings in the sense that it was not conceptualized as an academic endeavor. In fact, this project began long before I ever decided to pursue a career in academia as a researcher. Although this project is in conversation with academic literature and approaches, it was never intended to form part of any doctoral research, nor was it inspired by a seminar topic or article read in the library and followed up by my entering an unknown or unfamiliar community with a predetermined aim or methodology in the hope of helping to solve what was seen as the problem or to bring about social justice; it became a way of satisfying my academic institutional obligations.

The challenge of balancing a Western theoretical framework within an Indigenous one was a major one. This was reconciled through borrowing and being in conversation with relevant methods from Western theory and adapting them to fit my study. Therefore, this project and the approach and methodology I share here has been a long, very personal and collaborative journey for me as a biracial Zapotec person wanting to decolonize myself personally by learning my traditional language and absorbing my ancestral teachings, while also critically reflecting on and addressing my own personal deep-seated colonial discourses, as well as my position of privilege, all in the hope of learning to live a more authentic *binnizá* life. I did this because I wanted to ensure that I could learn about my ancestral culture so that one day I would be able to transmit the knowledge of my ancestors to my children and ultimately learn to live our culture and language. I wanted, too, to reaffirm my connection to my maternal grandfather's community of Union Hidalgo. The only way I saw of being able to do this was to re-enter my grandfather's community and begin to live and engage in life alongside our community, and immerse myself in our traditions, language, and culture with the understanding that this would mean a long and, at times, uncomfortable journey. I was not by any means naive enough to think that my maternal grandfather's community would embrace me with open arms and welcome me home (although some relatives did) just because my family are direct descendants of founding members of our community. In situating myself I must mention that I do participate directly in the community. My acceptance into my grandfather's community did not come overnight, despite being taught our customs by grandparents and shaing a common ancestry. And rightfully so, I was in fact a multi-ethinic stranger from Canada or *del primer mundo* (first world citizen), who did not grow up there and was not aware of the all the nuances of our community and of our culture; and it is only normal to have ccertain assumptions about my character and my possible agenda. I entered my maternal grandfather's community for the first time with my grandfather, and despite having

his support, and the fact that culturally and ethnically I am *binnizá*, I was nevertheless an outsider and I understood that all these elements would not make me an insider so, when I entered our community I did so with an ally mentality. I understood this according to the definition put forward by Adams, Bell and Griffin (2007) that an ally is an "individual from an agent group who rejects the dominant ideology and takes action out of a belief that eliminating oppression will benefit both agents and targets of oppression" (cited in Spencer, 2015, p. 47). For me, this was a way of negotiating this insider-outsider status and identity. Entering the community with an ally mentality meant several things. First, I understood the adage that trust is something that is earned and not given, takes time and can only be earned through dedicated action and showing one's face around the community. This meant sharing my story with people, telling them why I was in the community, explaining who my family was in the community and so on. I had to illustrate that I knew some of our protocols, such as naming my Elders from our families and providing enough information about my lineage and those who raised me because, in many ways our family names continue to carry a particular history within our community: Our actions continue to be judged in relation to past actions of our Elders and ancestors. Moreover, this process of sharing my story and introducing myself to people in the community also required me to listen and learn about the way things are done in our community; these interactions with members of the community also forced me to confront my own economic, somatic (lighter complextion), geographical, and able-bodied privilege critically and recognize how it has informed my thinking or directly benefited me. As an ally I needed to be able to take "responsibility for [my] own learning, and [needed to be] willing to be confronted and to consider change" (Spencer, 2015, p. 47). Part of this change also meant "unlearning [my]privilege, adopting an attitude of genuine humility, accepting that we (Western planners) do not have the answers and that we may be part of the problem" (Sandercock, 2004, p. 123). Entering as an ally and as an insider/outsider has

meant critical and constant reflection on the fact that I might never be truly or fully culturally competent and led to the recognition that the pursuit of critical and cultural consciousness is a lifelong process (Spencer, 2015). Another key element to this critical consciousness has also meant working alongside the community with what Lane and Hibbard (2005) refer to as an "ethical commitment to the future" that is aimed "towards strengthen[ing] Indigenous communities' overall autonomy … as a means of rebuilding community and culture" (Sandercock, 2004, p. 123). These crucial factors could only be learned and addressed over time and by direct involvement with community projects. It took years to gain the trust of people in the community through my actions, such as supporting, participating in, and donating my time to developing projects in our community. These included, for example, establishing a community radio station, creating documentary films, holding English-Zapotec classes, being a DJ at a community radio station for several months, respecting local protocol, and keeping my promises to people, all of which came from my grandparents' teachings, and honoring community traditions through my work with the collective. It has been my work in my community that has allowed me to rethink my place in the academy and what it means to be situated in both contexts, as I explore how each location presents different issues, and concomitantly I find modes of accountability and make these issues relevant to my scholarship.

Collaborative Relationship: Dreaming of a Future Where Our Old Ways Can Flourish Once Again

The many issues and lessons I mentioned above were learned through my direct and constant involvement with a Union Hidalgo-based media and cultural collective known as *Grupo Libre e Independiente Binni Cubi* (Free and Independent New People Group)

(GLIBC)[55] or simply as *Binni Cubi*. It was my collaboration and membership with the *Binni Cubi* that provided me with the epistemological foundation to understand our Zapotec lifeways and be able to articulate them. The collective was founded on 22 January 2002 by José Arenas López, a physicist, high math and science school teacher and independent Zapotec scholar and activist, alongside cousins, friends and other members of the community. I myself joined it two years later and have been a consistent member ever since. *Binni Cubi* has been active in Union Hidalgo for 16 years, and during that time its members have striven to find ways to improve the community from their recent initiatives of rebuilding houses and community-wide campaign reconstructing traditional *Zuquii* (clay ovens used to make *totopos* (oven baked tortillas), which is a fundamental part of generating most household income after the 8.2-magnitude earthquake that devastated our community in 2017,[56] to seeking ways constantly to celebrate, extend, and uphold local Zapotec lifeways in their various forms. The establishment of our collective was motivated by a yearning to strengthen our *Binnizá* cultural future as a conscious effort on our part to perpetuate our cultural traditions in our community and resist both the intrusion and imposition of national narratives of the dominant Mexican, Latino, and global culture. Moreover, our collective also felt that in:

> our community nothing was done to value our Zapotec language and our traditions, and it was for this reason that as a collective they chose to focus specifically on strengthening our Zapotec indigenous identity and doing it collectively, because we are aware that without a past there is no future and that without a starting point there is no possible destination. (GLBC, 2002, n.p.)

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[55] As a member of this communally based collective not based full-time in Ranchu Gubiña, it is my responsibility to share and promote *our* ideas, work, and *our* agenda and not to attempt to co-opt them nor pass them off as my own. This is not only my responsibility to the collective, but, more importantly, to my culture and, ultimately, to my community as well as to myself.

[56] https://mexiconewsdaily.com/news/in-oaxaca-anxiety-and-a-shortage-of-tarps/

Our main political agenda and objectives are:

1. the strengthening and total recovery of our *binnizá* culture and language and education particularly among youth;

2. creating spaces and opportunities to develop intellectual and artistic capacities amongst our citizens so as to address issues affecting our community; and

3. the preservation and proper community-mandated use of our natural resources.

Language and cultural revitalization is, however, a central concern of our collective. Our collective feels that these symbolically connected elements are the foundation of our specific Zapotec worldview and way of being in the world, both because they are rich repositories of thousands of years of accumulated knowledge that have developed from intimate relationships with a specific land-base and local ecology, and because they encompass cultural rituals and practices, family lineages, and the communal, physical, and spiritual knowledge of wellness (First Peoples' Heritage, Language and Culture Council, 2010). Moreover, language and culture for our collective provide a site of what Indigenous scholars (Richardson, 2011; Vizenor, 2008) refer to as "*survivance*—a cross between survival and resistance in which ongoing processes of cultural continuity and change unfold" (Hermes, Bang, & Marin, 2012, p. 385). The act of revitalization for our collective is about maintaining and enacting autonomy. Autonomy for our collective, as Maldonado Alvarado (2011) asserts:

> is not needed by original peoples so they can begin to think about and attempt to create a new and different model of society. Rather, autonomy is needed to strengthen what is and had been their own way of life for centuries and, from that historical experience which has nurtured their children and youth for many generations, to be able to promote a radical transformation of the Mexican nation state. (p. 369)

Autonomy for our collective is therefore about re-establishing and restoring the culture of self-determination, which was taken away from our people by the Spanish and then

later by the Mexican state. We choose the appellation "Free and Independent" because we are not affiliated with any political party or movement, nor do we subscribe to a specific ideology or agenda. This is not because our collective wants to be separate from the state of Mexico. Rather, it is about creating what the *Ejército Zapatista de Liberación Nacional*, (EZLN) known as the Zapatistas—an Indigenous revolutionary group—has optimistically referred to as creating "a world where many worlds fit" (Jefferies, 2010, p. 352) which does not mean separation, but, rather, demanding digity and respect for our Indigenous ancestral culture and having the ability to practice, organize, educate, and govern ourselves within this culture. The second half of our collective's name, *Binni Cubi*, denotes "new people" in Diidxazá, and was chosen specifically to demonstrate to people in our community that as Zapotec we are consciously choosing a new way of thinking and refusing to eschew who we are as Indigenous Zapotec people. Instead, we are teaching not only others outside our community, but our own people, too, to celebrate the value and splendor of our ancestral language and practices, particularly since many *binnizá* people are taught in school to embrace the national Mexican ideology that holds that our ancestral past should be appreciated only as a source of historical and cultural pride and that this historical past has to be transcended in order for us to achieve social mobility and become 'modern' Mexican citizens. We also understood among ourselves that as the next generation of *binnizá* we have a responsibility to secure the future of our *binnizá* practices for future generations in the same way our Elders and ancestors have done before us. Part of securing our *binnizá* cultural practices is "the need to equip [our youth] to circulate in the world, confident of their identity and with a strong sense of belonging to [the] community" (Maldonado Alvarado, 2010, p. 368).

When I first joined the collective there were 15 members in our group, but that number has fluctuated over the years because all our endeavors are done as volunteers. However, our highest enrollment was 28 members while our lowest may have been

3; José has always been the only consistent member of the collective. Our collective has always been made up primarily of local community members from diverse backgrounds—female and male students (primary, high school, and university), Elders, agriculturalists, artists, musicians, teachers, and professors from a wide range of ages groups from 8 to 85 years of age. As a collective we are not hierarchically structured, but rather horizontally organized; we have no leaders, but, rather, many actors dreaming of a better *binnizá* future. This structure allows us to continue to emphasize and employ a more inclusive and communal mode of participation, and it also reflects our community's way of life; our collective's work and approach have always been rooted and guided by our community life, history, culture, and Zapotec thought, which can best be conveyed by two fundamental cultural concepts or praxes, *guendalisaa* and *comunalidad*, that I will go on to explain. When I was young, my grandfather explained to me that mutual help, cooperation, active participation, and consanguinity, have always been a fundamental part of who we are, and are also at the heart of our cultural value system in our communities since time immemorial. This way of being in and seeing the world has a name, he said. It is called *guendalisaa*.[57] *Guenda* can have multiple meanings, such as spirit, mind, identity, origin, culture, but in this case, following the suggestion of López Chiñas, a prolific and highly regarded Zapotec writer, might be translated as "making" or "causing" (López Chiñas, 1974, p. 19) while *lisaa* means kinship or relatedness. In many ways, as my Elders explained to me, it is the essence of what makes us *Bizana* (sisters) and *Biche* (brothers). Through this we renew and honor sisterhood and brotherhood, community relationships, or what anthropologists may term kinship and sharing the best of nature and life while expressing solidarity every day in situations of pain and joy. *Guendalisaa* is perhaps the most fundamental theory

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[57] *Guendalisaa* as it is known in Isthmus Zapotec has many names in Oaxaca, such as *guelaguetza* in the Valley of Oaxaca or *gozona/gwzon* in the Sierra of Oaxaca, and is at the heart of Indigenous communities in the state of Oaxaca.

guiding the work of our collective because it expresses a worldview of reciprocity, "an attitude of open giving to others and the community, and trust and reliance in others and the community" (Esteva, 2012, n.p.), while constantly trying to ensure a worldview where "we," "us," and communal thinking continue to prevail. As Zapotec intellectual Maldonado (2011) has so eloquently explained, this work is to "create enough space for the old way to once again flourish" (as cited in Wheatley, 2011, para. 3) A fundamental part of this concept lies in *tequio* (communal work) which is the endeavor one dedicates to the community annually as work done for the benefit of everyone in the community, with no monetary compensation. Communal work can include but is not limited to the planting or harvesting of crops, or helping with weddings or funerals, or offering labor or food to someone in need, or planning a community festival. For our community, these activities also include working with videos, establishing a communal radio station and a community cinema, or painting urban murals as well as honoring present-day Elders. These activities, as José Arenas has always said, have been undertaken by our collective with the hope that as young Zapotecs we have contributed to the welfare of the community without expecting anything in return except just the satisfaction of having served our community. Through collaborative work and addressing community issues, we are all interconnected. It is about forging and preserving relationships. "Our systems of knowledge are built on the relationships that we have, not just with people or objects, but relationships that we have with the cosmos, with ideas, concepts, and everything around us" (Wilson, 2001, p. 177). Mexican intellectual and activist Esteva (2012) further describes *guendalisaa* or *guelaguetza* as:

> a complex system of reciprocity involving mutual help and material, symbolic and emotional exchanges, particularly in key moments in life, where a sense of both community ownership and personal freedom is forged as the ethical principle of *comunalidad*. *Guendalisaa* is also the normative framework weaving the interdependence between the people of the community and the region,

> creating new links between them and the gods and the dead, and thus creating the communal territory. Within *guendalisaa*, giving and taking are sometimes tied, which strengthens a sense of mutual obligation between two persons or families. But reciprocity implies an attitude of open giving to others and the community, and trust and reliance in others and the community, when you are in need. (Hope from the margins, para. 6)

The second guiding and interrelated concept for our media and cultural collective is *comunalidad*, which, like *guendalisaa*, is the theory, practice, and approach not born or devised in a classroom, or in academia as put by Luna (2012) a Zapotec scholar and proponent of this praxis. Instead, it is a theory and cultural concept and praxis that was created in Oaxacan communities at kitchen tables, in markets, at fiestas, and in our *milpas* (corn fields). The concept and neologism, *comunalidad*, was coined by two Indigenous Oaxaca intellectuals and anthropologists, Floriberto Díaz (Ayuujk/Mixe), and Jaime Martínez-Luna (Ben Gwlahx/Zapotec) as a theory used to reflect on and explore the fundamental qualities of our Indigenous communal life in Oaxaca. However, as Carlos Manzo (2008), a Zapotec scholar from our community rightfully notes, *comunalidad* is not a single, uniform, immovable concept, but is present in the life of Indigenous Oaxacan communities. It is a reflection of each community's specific life and socio-historical and socio-cultural context. As a term it is typically translated in English as "communality"; "if we mix 'commons' and 'polity' two words without equivalent in Spanish … but rather alludes to the 'communal condition' (Cook & Lindau, 2000, p. 299). Martínez-Luna further notes that *communalidad*:

> has its origins in the history of dispossession, in the forced relation we have kept with the territories left by the Conquest and the far-fetched exploration of land. That is to say, comunalidad is, too, the product of colonial history. (Aquino, 2014, as cited in Blanco & Rodriguez-Medina, 2016, p. 105)

Comunalidad, therefore, is "both a collection of practices formed as creative adaptations of old traditions to resist old and new colonialisms, and a mental space, a horizon of intelligibility: how you see and experience the world as We" (Esteva, 2012, n.p.). The foundation and vitality of *comunalidad*, according to Alvarado (2013) has three inseparable elements: ideology (a way of thinking rooted in the old ways); a structure that supports this world view (the community or a collective or both); and a way of organizing that supports collectivity over individualism (communal work).

Na Modesta Teachings and the Convergence of Comunalidad and Cellphilming

In 2009 our media collective, as part of a Zapotec language documentation campaign, sought to make a series of short documentaries, using borrowed camcorder technology, in the hope of preserving our language and documenting ancestral practices for future generations. This included recording traditional gastronomical practices, agricultural practices, and time-honored games, such as *tapú* (a ball game). Moreover, our collective saw this work as a form of *tequio* or work for the benefit of the community and as a way to both enact and perpetuate *guendalissa* and *comunalidad* with Union Hidalgo. In many ways the cellphilm project and method, which is the focus of this dissertation, was the continuation and further development of an embodied video-enhanced approach to language revitalization (Schwab-Cartas, 2012) that our media collective developed (or gave to the community, to be honest) in 2009 with the support and creativity of Modesta Vicente, an eighty-three-year-old Elder from our community. Unbeknownst to our collective, through this encounter we would not only get a deeper understanding of *comunalidad* and *guendalisaa*, but we would also learn how technology, in this case a camcorder (an old Sony) could be used as a tool both to document and to learn our language and ancestral practices. It is perhaps important to note that this was our first real attempt to engage with technology as a language-revitalization tool.

Moreover, it allowed us to engage with Zapotec language speakers, including Na Modesta, as she was known locally. Na Modesta heard of our project and asked us if we could document her *gueta biza* (black bean tamale) recipe in the hope, as she said, of "continuing her gastronomical practice for future generations." As we began to record Na Modesta preparing and cooking her black bean tamales, she recited all the ingredients in the dish and, more surprisingly, she invited us all to participate in the preparation process. She believed that the language needed to be associated with or grounded in an action for us to truly learn in a way that would enable us, as she said, to pass it on to the next generation. So, while we had embarked on this process with a narrow idea of creating a video, we found ourselves not just documenting, but learning our Zapotec gastronomical practices *and* our language experientially (see Schwab-Cartas, 2012, 2014). Putting a practice like making *guetabiza* at the center of language-learning provides a point of entry into the lives of people of any age and at any level of language proficiency through engaging their senses, movements, and intellect simultaneously. This experiential learning is at the heart of the millennia of cultural continuity and consciousness in Indigenous communities, even when it brings into play recent technologies like video-making. It is effective because it recognizes the reality that language is embodied and interactive, not solely a cerebral pursuit. Moreover, Na Modesta's insights and experiential teaching process reminded me of the Zapotec term *guenda*—a word with multiple meanings, like, for example, identity, origin, *nagual* (animal counterpart), knowledge, and cultural inheritance. It implies "knowledge as both information and the process and emphasizes different ways to gain [and] acquire knowledge … The concept also indicates indissoluble ties between the past, the present and the future" (Prosanger, 2010, p. 435). Therefore, *guenda* not only further emphasizes a holistic Zapotec approach to learning and teaching, but also foregrounds the role of technology as a way of transmitting our culture through actively engaging the next generation in the actual practice of what is being taught. Her approach reflects

a continuity of the same pedagogical approach that has been used for centuries by Elders and ancestors in our communities. Na Modesta's experiential learning method occurs within collective action and use of the body. This aligns with other experiential approaches in that "it maintain[s] that body, spirit, mind, and body are not separate in experience, that learning is more focused on being than doing, and that experiential knowledge is produced within the collective, not the individual mind" (Fenwick, 2007, p. 534). I am forever indebted to Na Modesta for everything she taught us about our language and gastronomical practices, but perhaps, more than that, for what she taught us about how we can use technology, in this case a camcorder, in the process of language revitalization and knowledge transmission.

In many of the ways in which Na Modesta taught us, the documentation can occur on two fronts. First and foremost, for her, documentation really meant that we as a collective were learning and engaging in the actual tamale-making process. By participating in the process of making tamales she said we were mentally documenting and learning both our language and the art of making these for our children and future generations. Second was the documentation of language and of these practices via camcorder in our making a video that can be viewed by future generations. However, what is not to be underestimated here, and what we also took from this experience, is that Na Modesta really understood the novelty or "cool" factor of technology, perhaps because she was an Elder and saw this technology as novel herself. Na Modesta understood that incorporating technology with language learning would attract youth. With that in mind, she created a context that would encourage young people to engage with the language and cultural practice, even if at a minimal level.

For years after this encounter I asked myself the following question: How could we take the teachings from this encounter, which combined experiential learning and Zapotec pedagogy with technology, and turn it into a possible enduring community approach to language learning and revitalization? Unfortunately, over the years, in

our community we have lacked access to technology, such as a camcorder and editing software (see Schwab-Cartas, 2012; Schwab-Cartas & Mitchell, 2014), not to mention access to the internet, which was limited to two internet cafés. In other words, Union Hidalgo was at the time very much part of that so-called digital divide, like many rural, Indigenous, and impoverished communities. In a discussion about this matter with my supervisor, Claudia Mitchell, she asked what seemed to be a very straightforward question but one that would prove to be transformative: Have you ever thought of using cellphone/smartphone cameras as a viable and perhaps even more sustainable option to continue to carry out this work? She also suggested that the project with Na Modesta could in many ways be considered a form of DIY participatory video (Schwab-Cartas, 2012), which then prompted her to introduce me to another participatory method that she and her colleagues had developed that was known as cellphilming (Mitchell et al., 2014).

For several years Mitchell and her colleagues had extensively explored cellphilming as a research method with teachers in South Africa (Mitchell et al., 2014; Mitchell & de Lange, 2013). Moreover, they ask us to think of "what happens when technology is already part of the community and it is only its particularized use in producing video that is new?" (Mitchell et al., 2014, p. 2). This became a central question when I was developing this methodology particularly since audio-visual equipment was expensive and difficult to operate as opposed to cellphones, which, as mentioned earlier, have become an integral part of the social fabric of the community. Young people, the target audience of this project, are in most cases are not only comfortable, but arguably specialists when it comes to cellphones or mobile technology, which, as I will argue shortly, makes for a more engaged and embodied learning experience. But what exactly is cellphilming?

Cellphilm emerges and responds to participatory visual methodologies, and more specifically, participatory video. Participatory video and cellphilming share a

common goal, which is to engage individuals and communities in dialogue and critical consciousness in an effort to move toward social action. The interest in participatory video to inform social change and policy change overlaps with an interest in cellphilm method. The critical differences between the two methods are based on technology and relatively recent shifts in digital media practices:

> Cellphones are familiar tools and easier to manipulate for basic as well as complex video production; video cameras are expensive and have a single purpose, are not intuitive to use and require practice and specialized knowledge about how to affect the picture as well as the sound quality. (MacEntee, Burkholder, & Schwab-Cartas, 2016,p. 7)

Unfortunately, participatory video research frequently relies on a researcher with privilege bringing his or her technology (video camera, sound, computer, editing software etc.) to share with participants of historically oppressed communities to address a specific concern or to bring about some type of social justice (MacEntee et al., 2016). When the project concludes, the community's access to the technology may also end. Mitchell, De Lange and Moletsane (2015) and Schwab-Cartas and Mitchell (2014) have also argued that the challenges of negotiating equipment ownership could—perhaps unbeknown to the research team—contribute to new power dynamics in the community. Access to technology can also be interpreted as a way of justifying the necessity of the researcher's presence in these marginalized communities to solve problems, give communities a voice, or engender some sort of social justice. Moreover, as Walsh (2014) observed:

> in participatory video the researcher/practitioner almost always assumes a role of powerful interlocutor since they inherently situate themselves as knowing more about the visual and the media tools, even when they may have no formal artistic or film training. In fact, when this asymmetry is not present, we probably would not consider it participatory video. (p. 5)

Therefore, access to and knowledge of technology can actually reinforce the hierarchical power dynamics involved in participatory visual research. The integration of pre-existing mobile technology helps disrupt this top-down power dynamic.

Participatory video works with the premise that participants will have no or only marginal familiarity with video-making, cellphilm methodology but also assumes that they will be familiar with video culture, and with producing and consuming videos on a regular basis. Mitchell et al. (2015) have suggested that cellphilms shift how participatory visual methodologies engage marginalized communities and democratize the research process. This idea can be framed by Dyson's (2016) concept of domestication and the particular ways in which cultural groups make a technology their own by adapting it to their needs and agendas, and also adapt their behaviors to the technology. Thus, by using a culturally embedded and domesticated technology, as Mitchell et al. (2016) have noted, we have a greater chance of eliminating the dichotomy between insider and outsider inherent in participatory video and of engaging in notions of contact zone and the third space. This can extend ideas of dialogical relationships to include thinking of collaborative ownership and textual interpretations to create a new, shared space of understandings, as Krmpotich and Peers (2013) have said. Participants, therefore, are holders of cultural knowledge and they also possess digital media knowledge and the skill of cellphilming, all of which positions them on a more equal level, whether it a youth working with an Elder, or a participant working with a researcher. In other words, cellphilming positions the researcher and/or facilitator and participant on a more horizontal plane, moving away from the salvage or liberatory paradigm that underlies so many participatory research methodologies to one in which participants and researchers can truly become co-creators of knowledge. Cellphilming, as McEntee et al. (2016) cogently asserted, can also be a means through which researchers might act as allies in support of creative production by community members, and be more open to other ways of knowing and being in the world.

These are particularly salient issues for Indigenous communities who are tired of being "researched to death" (p. 1393) as expressed by Castleden, Garvin, Huu-ay-aht-First Nation (2008), which has resulted in a general sense of skepticism and resentment for academic researchers in Indigenous communities (Smith, 1999). This distrust and frustration underlies some research practices that are intrusive and non-equitable in being based on a savior mentality, and also the Western mindset and worldview that considers research as a purely intellectual pursuit (Smith, 1999; Wilson, 2008) that "is predisposed to produce knowledge for the purposes of progress and at times simply to further academic endeavours" (Gaudet, 2014, p. 76). This is remarkably different when compared to Indigenous thinking and a worldview that instead "produces practical knowledge for specific cultural effects and for preserving a respective society's social order" (Gaudet, 2014, p. 76). As an insider/outsider ally, and having worked in our community for close to two decades, I chose to adopt and re-inscribe an approach that addresses these ethical concerns that stem from more traditional academic research by creating alongside our community a method that combines a participatory cellphilm approach and a critical framework to achieve social change (see Plush, 2012). Plush notes that PV (participatory video) that is used for social action must be created for an internal and external audience so that issues of power and agency come to the forefront, rather than having the video consumed by interested, but distant actors (i.e. academics). Rather, Plush states that "three elements—knowledge, consciousness, and action—provide a strong foundation for building rigor into the design and implementation of participatory video projects for social change" (2012, p. 68). I, therefore, applied this framework to my cellphilm approach and combined this with grounding my method in an Indigenous Zapotec worldview that draws on community concepts and practices such as *guendalissa*, *comunalidad*, and *tequio*, to name but three.

Why Cellphilm and Cellphones in Union Hidalgo?

This participatory approach, like *comunalidad*, involves research methods that are found within a transformative paradigm (Kovach, 2009) that "includes principles of co-learning, experiential methods, shared knowledge practices, respectful relationships, and mutually beneficial results" (Gaudet, 2014, p. 73). Therefore, as a method it "simultaneously contributes to basic knowledge in social science and social action in everyday life" (Cochran et al., 2008, p. 22). In addition, the participatory cellphilm approach was an ideal method to use in Union Hidalgo since cellphones have become as ubiquitous there as anywhere else in the world, especially among the youth. In fact, cellphones have become such an important part of people's everyday lives that the word "cellphone" has entered the Zapotec lexicon as *bichugale*. According to the 2015 National Institute of Statistics and Geography of Mexico (INEGI, 2015) census for Union Hidalgo, approximately 75.7% of the community owns or has access to a cellphone (not including tablets or other mobile devices, which were not part of the census). This is a significant increase from the 2010 census, when only 51.1% of the population had a cellphone (INEGI, 2010). This represents an increase of over 50% in a span of five years. Moreover, Union Hidalgo due to its 4G broadband cellular network, which allows for easy uploading and streaming of video/cellphilm content was well equipped to support a cellphilm projecct. In addition to the majority of households had at home internet access or youth also told me they toggled their phone to their tablets for internet access. Zapotec youth, like youth around the world, are at the forefront of this increasing trend, engaging with an array of new digital media including Facebook, texting, and documenting their daily lives on other social-media platforms. My participatory cellphilm approach aimed to explore this new digital technological fluency among youth, especially in terms of how the approach could be integrated or used as a medium for the transfer of cultural and linguistic knowledge.

Background to the Research Question

Intergenerational and experiential learning through engaging in everyday practices like cooking, crafting, and agriculture has been at the core of Indigenous language and skills acquisition for millennia (Fishman, 1991; Fenwick, 2007). "The major concern of most, if not all endangered language communities, is that the language is no longer being transmitted to the younger generations" (Galla, 2012, p. 62). Therefore, many Indigenous communities including my own in an attempt to address this crisis are finding innovative ways of integrating various forms of technology with language learning, as a means to attract youth to engage with their traditional languages. With the advent of new and affordable digital and mobile technology, such as cellphones, tablets, and computers, there has been an increased interest in recent years in how these new technologies can be used to support efforts to teach and revitalize endangered languages, particularly among Indigenous youth, since many are digital natives (Prensky, 2001). The use of technology such as computers, camcorders, and voice recorders for Indigenous language revitalization and maintenance efforts has been represented through the documentation of endangered languages and material development (Galla, 2009, 2016; Hinton, 2001; Miyashita & Moll, 1999; Penfield, Cash, Galla, Williams, & ShadowWalker, 2006). Moreover, much of the research exploring the use of technology as a tool for Indigenous language revitalization focuses either on materials development in the form of online dictionaries, games, and apps that adapt software to Indigenous needs or on documentation, all of which are critical means of supporting the continuance of an Indigenous language. However, there remains a paucity of content in the literature in terms of how technology, particularly mobile phones, can be used to either foster or provide an entry point for youth to connect with elders—the community language and cultural experts—and that can still create documents for future generations but go beyond resource development. Instead, synergizing youth's everyday technological skills of mobile technology with elders'

cultural and language knowledge in a way that actively engages language learning within the lived context in which language acquisition occurs (Eira, 2007) seems to me to be the way forward.

Research Question

Building on the everyday practices I describe above, I pose one main research question:

> **How can mobile technologies, such as cell phones or iPods and tablets, combined with a participatory cellphilm approach in the context of intergenerational and experiential learning, play a role in the revitalization and maintenance of Indigenous languages and knowledge?**

Objective of the Study

The overall objective of the project was to promote language documentation and acquisition through working to bridge the generational gap of understanding between elders and youth in Union Hidalgo, Mexico. My objectives were:

1. to connect youth with elders through participatory cellphilm-making workshops;
2. to promote the importance and value and *continuity* of ancestral practices across generations;
3. to employ local on-hand resources like cellphone cameras in order to make the workshops sustainable on an on-going basis within the community; and
4. to facilitate the development of a pilot model for language learning that brings elders and youth together through a focus on Zapotec ancestral practices.

Summary

Personal experiences, as Chickasaw scholar Hampton (1993) noted, are the heart of Indigenous research. Therefore, this chapter began with a reflection on my personal journey of re-entering my community as a bicultural and biracial Indigenous Zapotec person critically reflecting on my insider/outsider positionality and eventual transition to becoming a member and ally of the community. This personal journey and transition to becoming an ally and member was, in large part, made possible through my collaborative experience with the media and cultural collective *Binni Cubi* and, with their support alongside that of my own family, I was able to further my understanding of vital elements and teachings of our Zapotec epistemology and worldview, thereby allowing me to recover, finally, a missing piece of my identity and begin a process of personal decolonization, which would eventually enable me to live a more authentic Zapotec way of life. This process of personal decolonization was further enhanced through a collaboration between our media collective and an Elder, Na Modesta, who taught us how to live our Zapotec language and traditions by inviting us to be part of her world through involving us directly in participating in her ancestral practice of making *guetabiza* and, as a result, learning about the significance of two fundamental Zapotec culture concepts and praxes, *guendalisaa* and *comunalidad*, which would become the guiding concepts of our collective and of all subsequent projects, including this one. Moreover, Na Modesta gave us insights into potential uses of video and she also gave us a participatory visual method or model of language-learning. This strategy takes language learners outside the classroom setting and puts language programming into everyday life situations as Elders, students, and instructors take part in traditional and cultural activities together. Moreover, Na Modesta's approach was a highly innovative way of using technology and traditional Zapotec experiential learning as a means of teaching and learning our language, and it became the inspiration and driving force behind this entire project. As a result of this encounter we learned how

embodied experiences are at the heart of Zapotec teaching and learning and came to understand the inseparability of language and culture. Na Modesta's teachings also taught us indirectly a type of biculturalism; our Zapotec culture does not necessarily have to be in opposition to outside worldviews or technologies, such as camcorders and eventually cellphones. To arrive at this realization, we had to reflect on self and know our own culture and community context, in order to be secure in our own identities so that we could become discerning in how to take advantage of outside ideas or technologies in ways that support our culture, language, and community. My mentor and supervisor, Claudia Mitchell, introduced me to a participatory visual method known as cellphilming which, as a research framework, shares the common language of community benefit as a shared goal (Kovach, 2009) in "co-learning, experiential methods, shared knowledge practices, respectful relationships and mutually beneficial results" (Gaudet, 2014, p. 73). The chapter then described how I combined this participatory cellphilm method with Na Modesta's teaching as a means of centering and grounding it in Zapotec epistemology, which in turn allowed me, alongside our community, to create a research and language revitalization approach that begins and ends with the concerns of our people and community. The purpose of this method and research is "more than just the production of new knowledge; it upholds the pedagogical, political, moral and ethical principles that resist oppression and contribute to strategies that reposition research to reflect the unique knowledge, beliefs and values of [our community and people]" (Martin, 2012, p. 30).

5

Honoring Our Past to Secure Our Cultural Future: The Research Process, Data Collection

> *"Queremos construir una vida mejor para nuestro pueblo."*
> *We want to create a better life for our town.*
> Ernesto "Che" Guevara de la Serna

In this chapter, I detail the in-depth pre-research consultation and discussion with José Arenas, my co-Principal Investigator (co-PI), Elders, members of the collective and other community members (family, friends, and parents) on topics ranging from the goals and objects of the project to ethics and protocols in general, and from more specific issues such as sharing material to the numerous factors to consider before one uses technology. Other topics of discussion included: technology and role of the Elders, video-making as an educational tool, the number of participants, and finding ways

to promote the workshop. like creating posters and deciding on a name. Here I also describe the collaborative data creation process, which we called "walking together to create knowledge," not "data." In my collaborative and participant-led approach, I view data in this Indigenous cellphilming approach as being generated rather than collected (see Graue & Walsh, 1998) because, as Crump and Phipps (2013) rightfully pointed out in their work, *collecting* data seems to suggest that data already exists and is ready to be picked up at the researcher's convenience, while *generating* data reflects an active, engaged, and negotiated process. This engaged, collaborative, and negotiated process, which I will discuss in greater detail shortly, was ensured throughout the various stages of the project through what we in our community refer to as *asambleas* (assemblies/talking circles) which are a fundamental aspect of Indigenous Zapotec community life in that all members of the community or, in this case, the collective, have both the right and the obligation to participate by expressing their views and opinions on a matter of community concern, a project or any other mater. "The goal is to reach a consensus for making decisions" (Magallanes-Blanco & Rodriguez-Medina, 2016, p. 109). These *asambleas*, which are similar to talking circles (see Osborn, 2007) foster trust and also engender a multi-layered process of personal, interpersonal, and collective reflection (Nicholls, 2009) among all the participants including myself and my co-PI. One of the issues I reflected on was the fact that within this Indigenous Zapotec research framework, my responsibility to my/our community as an insider/outsider/ally in included sharing the results respectfully. Among Indigenous researchers Kovach (2009) noted that "there is a deep concern about the risk to cultural knowledge in research. Indigenous knowledges are holistic and encompass knowledge sources that Western science may not acknowledge as legitimate" (p. 147). Yet, as an Indigenous researcher and member of the community and media collective, I have, as Ives, Aitken, Loft and Phillips (2007) have asserted, a dual responsibility of satisfying both our community—which is not the research-field but our home—while still confronting the worry and

difficulty of bringing our knowledges into the academy, because we still run the risk, as Kovach (2009) has argued, of having them appropriated and/or diminished. Other reflections, such as intra-personal ones, included discussing personal and collective goals and the changes we wanted to see in our community in terms of language-learning and education, particularly in our own homes.

José Arenas Lopéz: Community Activist, Knowledge Holder, Friend and Co-Principal Investigator in this Fieldwork

It is important to talk about the role of José Arenas Lopéz in carrying out the fieldwork. José was then a 38-year-old Isthmus Binnizá, born and raised in Union Hidalgo, a prominent community leader and mobilizer, father, knowledge holder, community radio DJ, teacher, scientist (he holds an MA in physics), activist, founder and longest standing member of the *Binni Cubi*, a media and cultural collective from Union Hidalgo. As a community leader and activist José has been active in our community for close on two decades. In that time he founded *Binni Cubi*, produced two award-winning CDs that promoted a local musician, and founded a community radio station that broadcasts in both Zapotec and Spanish and that features 100% Zapotec and Union Hidalgo content, as well as planning community arts and science festivals, community cinema nights, and several cultural and environmental initiatives, to name just a few of his various community projects. José dreams of generations of Zapotecs who speak Zapotec proudly and fluently and continue to uphold and transmit the knowledge and values of our ancestors, so every community project José undertakes is always aimed at strengthening and promoting Union Hidalgo Zapotec culture, language, and identity. I have known and worked with José for 16 years now and we have collaborated successfully on several projects, such as making three documentaries (one of which won an award and all of which have been screened at international film festivals) and establishing the community radio station, as well as setting up several Zapotec-English

classes for members of the community. I chose to partner with José again for this project for several reasons. We have had a long working relationship, and our goals and politics when it comes to the community are aligned. Since we have worked on several very successful initiatives, I wanted to ensure a similar outcome. Moreover, José's almost two decades of dedicated commitment to the well-being of our community has led to his having a certain status that has engendered respect for him in the community. Also, given all these lived experiences, José can, in many ways, be considered an Elder. These "are people knowledgeable about culture and tradition … Elders are not always persons over a certain age, and not all older persons are considered Elders. Rather, Elders are those who have and show concern for others and the community and show leadership. The position of Elder … is one of esteem and respect" (Moeke-Pickering, Hardy, & Manitowabi, 2006, p. 5). José embodies many fundamental qualities that make up an Elder and he has also been highly formative in my own journey of connecting with my culture, language, and identity. For these reasons, I felt that working with him would help me as an insider/outsider community member in providing me with guidance to ensure that the research process and project both respected and addressed the community's actual goals and needs as well as ensuring that my research and work were always accountable first and foremost to the community. At every stage of the project, including the pre-project work, José held me accountable by ensuring that my proposals and ideas were heard by other members of the community, including other Elders. Because I was not fully familiar or comfortable with all our community protocols, it was key for me to have José as a co-principal investigator to ensure that I, as well as the young participants from the workshop, could navigate and show the proper respect for all the local policies and practices, such as working with Elders, for example. Elders like José play "an important and integral part as guides and leaders for traditional living, and their role as research advisers was an extension of their general community leadership" (Flicker et al., 2015, p. 1151). It was for these reasons, as well as the fact that

we are not only friends, but also fathers who are deeply committed to ensuring that our children continue to live our Zapotec way of life and are enabled to pass on our traditions to their children, that I thought of José as a vital collaborator on this project.

Research Process Outline

Step 1: Pre-research Consultation and Ethics

- I held weekly brainstorming sessions via skype with my local collaborators and Co-PI José Arenas López, and *Binni Cubi* and other community members. In these sessions we collectively discussed the goals and aims of the cellphilm workshops. We also discussed strategies to recruit both youth and Elders to participate in the workshops as well as potential guest speakers. We spoke, too, about possibly needing translators.

- I also discussed my project with several of my Elders.

- I held discussions with Jose Arenas López in order to co-create a list of technology devices that would be needed to carry out the workshops. (Although students would be asked to bring their cellphones not all would have cellphones with filming capabilities and not all Elders would have a cellphone.)

- I determined the feasibility of a cellphilm approach by ascertaining access to and use of cellphones in the community.[58]

- I wrote a research proposal and shared it with José Arenas for feedback and to ensure that the project truly expressed the goals and objects of both the community and the collective.

- I obtained ethical approval from the university and the community.

- I finalized the theoretical framework and the research approach and methods with the community and collaborators.

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[58] I discuss the details of this as part of phase 1 of the data collection/ knowledge creation phase.

Step 2: Arriving at Union Hidalgo

- We recruited Elders to participate in workshops and secured their participation for youth- elder pairing and had two resident Elders be part of the workshop discussions to aid with the Zapotec translation of words and phrases as well as the sharing of our oral histories.

- I presented the project's goals, objectives, and timeline to Elders and other members of the collective as well as to the parents of possible participants.

- I secured a location for the workshop and office to carry out the project.

- I designed and printed promotional posters for the workshop.[59]

- José and I began promoting the workshop across various means, such as word of mouth, and presentations at all the community middle- and high-schools.

- I recruited young participants for the workshop.

- We organized and transcribed conversations, and captured results.

Step 3: Collaborative Analysis

- We carried out the collective reflexive data analysis process.

- We developed research findings in alignment with the approach, the theoretical framework, and the methods so that I could write this dissertation.

Step 4: Results

- Dissemination of the results

- Sharing the knowledge of the project with the community and university (this occurred throughout the study.)

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[59] See **Appendix 2** for the promotional poster.

Pre-project Consultation and Articulating Community Ethics

There were two distinct pre-research undertakings involved in this project. One was what Maōri researcher Lynn Pere Russell (2006) called the 'Pre-research Consultation' which I will discuss in greater detail shortly, but it involved developing a theoretical and methodological strategy and/or "intervening" (see: Smith, 1999, p.147) alongside my community to ensure that this intervention or project was culturally relevant, that it followed community protocols and ethics, and that it contributed directly to the strengthening of the community, its language and cultural practices. While the other activity was in the context of academia, in the form of an Institutional ethical review process, and while my university approved the use of human research subjects through the Institutional Review Board process granting me access to conduct this project, the process to carry out this proposal in my community involved much more than that. To help me better explain this I cite below at some length a Cree Scholar, Margaret Kovach (2009), who captures the complexities, various considerations, and distinct personal and community responsibilities I felt I needed to reflect on in my dual role as an Indigenous researcher in academia and an Indigenous community member/ally. Also, Kovach's quote provides further context to help better understand the extra time and the distinct community-rooted ethical responsibilities Indigenous researchers need to consider when they are working in their community, and why it is so important to undertake a pre-research consultation with one's community:

> Specific ethical considerations and their complexities occur within Indigenous research frameworks themselves. In the practice of research, certain ethical standards cross cultures, such as informed consent and members' check. Within institutional contexts, these are often associated with liability concerns, and are acknowledged by the larger community of researchers. However, Indigenous epistemic research conducted under Western funding or academic parameters holds a unique ethical complexity that is less about liability and is

> more relational… Simply because a researcher is Indigenous (or following an Indigenous framework) does not automatically translate into community trust. Trust needs to be earned internally. Trusting relationships are engendered in a variety of ways: following protocol, showing guardianship over sacred knowledges, standing by cultural validity of knowledge, and giving back. (Kovach, 2009, p. 147)

The Pre-research Consultation process took place several months before I commenced the project, but I began discussing and developing the objectives and goals of the project a year before the project even began. A year before the project went ahead I was visiting family and making my own cellphilms with relatives and family friends. During that visit I met up with my friend, fellow *Binni Cubi* collective member and founder, José Arenas López, who had expressed his interest in making another documentary, particularly since it has been at least five or six years since our collective had made a film. I took this opportunity to introduce him to the idea and approach of cellphilming and discussed with him the possibility of our collective organizing a cellphilm workshop aimed specifically towards youth in our community focusing on the topics of Zapotec language, practices, and filmmaking and combining it with our experience of being taught by Na Modesta. José was excited by the idea and had already suggested several possible ancestral practices that should be filmed because they are slowly disappearing. He also mentioned possible Elders who would be interested in producing a documentary about their work. However, José was not entirely convinced by the idea of working with cellphones or mobile devices for many reasons, which I will discuss in greater detail shortly. After these initial discussions I had returned to Montreal and it would be several months before we would discuss the project again.

Upon completing my pre-doctoral work, such as completing courses and taking comprehensive exams, I developed a proposal for my supervisor, Claudia Mitchell, and committee members, Mela Sarkar and Angelina Weenie, for their comments

and eventual approval. I also shared my proposal with José, not only for his initial impressions, feedback, and comments, but sharing and holding an open discussion or what we call *asambleas*. Any community initiative undertaken by any member of *Binni Cubi* collective is a vital part of our media collective's participatory and collaborative approach that is rooted in our Indigenous Zapotec community's mode of participation. And while I was, of course, seeking feedback, guidance, and approval from my supervisor and committee members, which was, of course, critical to the success of the project, it was perhaps just as important for me to share it with José not solely for his approval or insights, but to also to ensure that this project was answering the critical questions posed by Maori scholar Linda Tuhiwai Smith (2000) that one should keep in mind when working in one's community or in any Indigenous community:

> What research do we want to do? Who is it for? What difference will it make? Who will carry it out? How do we want the research to be done? How will we know it is worthwhile? Who will own the research? Who will it benefit? (p. 239).

Part of ensuring that this project addressed these questions, while being accountable to the community and its agenda and finding ways to get youth and Elders, involved José, though it was vital to invite other members of the collective and the community as well so as to have a broad array of insights and feedback. He suggested that I ask my own Elders and relatives for their take on the project and for any suggestions or comments, which I did. Inviting and sharing it with José and members of both the collective and community was about honoring and following the community's collective decision-making and about strengthening community self-determination. "Speaking and listening. Consultation and deliberation. These constitute the essence of democratic process, the prerequisites to collective decision making and popular sovereignty" (Ruggiero, 1998, p. 8). This process that started in bi-monthly emails and Facebook conversations quickly evolved into weekly Skype or Facetime video conversations between José and other members of the collective. José relayed the

reactions of other community members and Elders reactions to the project to me, as well as issues they had raised. These conversations continued for close on six months before we began the project, while my conversations with my Elders were mostly via email or phone calls. I met with Elders who live outside our community, such as my uncle who lives in Coatzacoalcos, Veracruz, who has always been a teacher and mentor and instrumental in my learning our Zapotec traditions, language, stories, and history. These conversations and face-to-face meetings with all these participants and co-collaborators generated many critical discussions, insights, and topics that needed to be considered and reflected upon. The following is a synthesized account of the numerous pre-consultations, conversations, and topics discussed with José and other Elders and members of the collective and community.

Defining Objectives, Parameters of Workshop, and Number of Participants

One of the first conversations I had with José was to define clearly the goals of the workshop so that we could promote it to the participants and their parents. José and I were aware from past experiences of hosting and organizing Zapotec language-learning classes and workshops that simply saying it is a Zapotec language-learning workshop would not be appealing to both young participants and even to some parents. As I mentioned in **Chapter 3** there is a wide spectrum of attitudes towards language in our community that ranges from wanting to learn and being excited, to indifference and feeling that it is a waste of time, which is why we understood that we needed to promote the technology aspect for several reasons. This was despite the fact that in past Zapotec language-learning workshops we tried to sensitize both youth and their parents to the fact that learning Zapotec is an asset and not a hindrance and that this will aid in their learning another global language such as English. We also wanted them to know that universities, including some in Mexico, are now offering

Indigenous language speakers grants and scholarships[60] as a means of preserving and perpetuating Indigenous language among members of younger generations. Moreover, José and I felt that by promoting it first and foremost as a filmmaking class parents would feel that the participants would be learning a new and valuable skill that could possibly be used at university or in other contexts. It was also a way of enticing younger participants. Language-learning alone has, in most instances, never been enough to capture the community's attention or motivation. But something else we learned from Na Modesta was that we cannot underestimate the coolness factor of technology in terms of attracting young participants, so, using her approach, we said that it was vital to use technology as a platform or as a conduit to effect language learning among youth and foster intergenerational bonding and learning. Hugo (2015) observed that using technology can be a powerful mechanism to entice and even introduce youth to learning their ancestral language. Hugo noted three factors, which in many ways echo and further reinforce what we learned with Na Modesta (see Schwab-Cartas, 2012):

- *"Novelty:* a type of attitudinal effect that may be due to an individual's initial exposure to technology or due to a technology's own unique or cutting-edge features in a specific context.

- *Positive prestige:* how the prestige of a lower-prestige language may be increased when associated with a technology that has certain cultural appeal or evaluation ('cool' or 'out-dated').

- *Motivation:* the willingness to engage in a task … and/or to invest effort in a task that has been selected". (Hugo, 2015, p. 100)

These are the reasons why we chose to promote this as a documentary filmmaking class, with the objectives of being able to write, produce, film, and edit a video that focused on our Zapotec community practices and that would be shared with the community

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[60] http://becasindigenas.ciesas.edu.mx/

in a public screening. We did so because we, as well as others, felt that it would be too complicated to try to explain face-to- face or online Na Modesta's embodied language-learning approach to video (Schwab-Cartas, 2012; 2014; 2016). So, those aforementioned aims became the promotional objectives. José, and I and others, however, felt that it was crucial to describe the approach in greater detail during the actual workshop. Moreover, the overall goals or objectives of the workshop were: 1) connecting youth with Elders; 2) making ancestral practices and Indigenous epistemologies central to the cellphilm approach; 3) making all the videos in the Zapotec language and focusing on Zapotec content as a key part of the immersive language-learning and cultural practice experience; 4) using available resources to develop sustainable community-based action.

José and I needed to determine if we were going to host multiple workshops and, if so, how many? How long should each workshop be? Another question had to do with how many participants should be invited. I told José that typically film-making workshops at university take a day (6 to 8 hours) during which time participants are familiarized with the methodology, theory, process, equipment (for example their cellphones used as a tool to explore and examine a particular issue), brainstorming and so on. José felt that one day was too short and so did other members of the collective and community. They felt it should take at least a month or even up to two months because, as I also know, and as is crucial to mention here, it takes time to build trust and bond with an Elder whose age may at times preclude her or him from being able to engage in everyday activities. Also, members of the collective felt that by making it longer we could perhaps expose these young participants to the other work we do as a collective as well as introduce them to many other pressing issues affecting our community, such as language loss, and environmental issues such as the effects of wind turbines in our community, for example. The idea that many members of the collective had in mind was that by exposing them to our collective's philosophies, community actions, and initiatives we can help youth on their path to living a more

authentic Zapotec life, which could lead to more sustainable and ongoing community participation. After much deliberation we settled on two months and believed that in that time we could develop an entire program that would include guest speakers, Indigenous documentary screenings followed by discussions, the possibility of making more than one cellphilm, and, perhaps most critically, developing a deeper connection and bond between youth and Elders, their practice, and, ultimately, our culture. I suggested 20 participants not including Elders because I felt that that was a manageable number that could easily be split up into groups or pairs. Also, as I recalled from my past experience of organizing and running an English-Zapotec class, it is difficult to keep everyone's attention on the topic. However, José felt it should be double that number of participants to try to include as many youth as possible and he also reminded me that youth can be mercurial and to recall from past initiatives how many participants dropped out either due to lack of interest, other commitments, or simply because parents felt that their children needed to focus on school. In the end we decided on 35 participants, not including Elders, from the age of 13 to 18 because younger participants may not be allowed to participate nor be able to film in the early hours of the day. Na Modesta began her practice at 3 am, which meant we had to be there beforehand to set up and be ready to film. Also, younger participants, as José and I also learned from a community-wide language survey seem to be less interested in learning Zapotec or Zapotec practices, which is also one of the reasons we limited our age range to teens. As José said, younger people are still finding and establishing their identity and trying to negotiate their indigeneity, and during that period of life many youths tend to want to ignore or suppress their Zapotec roots, so it would be difficult to sell them on the idea of making a film on Zapotec customs or language.

Cellphones and Mobile Technology and Other Concerns

Beyond the cool factor or the fact that technology can make learning an Indigenous language engaging and even exciting, as I and many other scholars have observed (Galla, 2009; Schwab-Cartas 2012, 2014), there were many other factors that were discussed and needed to be considered to "determine what factors inhibit, contribute to, or support the proposed language goal and whether technology is a necessary feature/component" (Galla, 2016, p. 1140). One of the first considerations was the critical concern of access to technology itself, which was a major issue for our collective when we were filming Na Modesta and making other documentaries (Schwab-Cartas, 2012). Our lack of accessibility was the contributing factor to making filming a non-sustainable practice in our community. And despite the fact that mobile technology, specifically cellphones, are seemingly everywhere in Canada and other places, I could not assume that this would be the case in Mexico and, more specifically, in a rather remote and rural community. Accessibility was not simply a question of the whether smart phones or cellphones are readily available; it also involved considering such issues as whether there was a proper telecommunication infrastructure community, as well as economic factors, such as the cost of the average cellphone and cellphone plan weighed up against the average household income. Other questions that we discussed were what cellphones or mobile technology were already being used for, Was it solely for communication purposes? Video? Educational purposes? Educational Apps? Who was the average user?

Another major issue to be discussed was the conflicted attitude or perception people in the community had towards cellphones. On the one hand, as mentioned in an earlier chapter, the cellphone had become an important part of everyday Zapotec life in Union Hidalgo. This enthusiastic adoption by our community could be framed by Dyson's (2015) concept of domestication and the particular ways in which cultural groups not only make a technology their own by adapting it to their needs and agendas, but also adapt their behaviors to the technology. As Baron noted, the practices

surrounding mobile phones are determined partly by the devices themselves and partly by the "cultural norms—or pragmatic necessities—of the society in which they are embedded" (2008, p. 131). Despite everyday citizens texting in Zapotec, or recording cultural practices and sharing them online, José and others did raise concerns such as the fact that many in the community see these devices as bringing in with them western culture and contributing to the erosion of our Indigenous culture. While this was not an opinion shared by many, it was something to be taken into account. Another, and perhaps more important, issue was addressing parental concerns that these devices provide distraction that can or does interfere with face-to-face socialization. Other issues included cyberbullying and sexting.

Overall, José and others liked the idea and saw and understood the potential to use a cellphone and cellphilm method as a valuable educational tool and approach when used in an immersive context. This raised the question of how to promote or advertise the actual workshop. We said we would promote it via internet, posters, video, face-to-face conversation, etc., but another issue was concerned with how we would name and promote the actual workshop itself that many felt could not be advertised as a cellphone video-making workshop because parental attitudes towards this device could be a delicate issue to navigate. As José and others noted, if parents already see these devices as somewhat problematic and as distractions, they would perhaps be less inclined to send their children to a workshop centered on cellphones. Parents might well view this cellphilm initiative as a waste of time or as providing another place or excuse for their children to just play on their phones and further distract them from their studies. We knew that we could not adequately or succinctly enough alleviate parents' concerns, however ill-founded. So, we collectively decided that we would advertise it as a documentary filmmaking workshop and invite parents of the participants and members of the community to the orientation session to describe the immersive language learning context in which these cellphones were going to be

used and how they were being used to support the language and cultural learning process. We planned to describe our own experience with Na Modesta and speak about how and what we learned when we were making our own documentary. In the initial information session, we also sought to address and discuss issues surrounding cellphone use in the workshop. We planned to create a dialogue with parents and other members of the community on addressing the use of these new technologies in our community to try to see what other issue or concerns they had that had not been not considered. Some of the concerns we wanted to discuss with parents and others were their views on having their children filmed. Was that alright or was it off limits? Were they comfortable with their children posting their videos online if they were in them? Also, what cultural knowledge and or practice was it alright to post online? And what was off limits? Were there any suggestions on how to record and share a sacred or cultural practice within the community without running the risk of cultural theft, misuse, or appropriation? We were also interested to hear if parents or members of the community who were older than us could suggest an ancestral practice they felt was important to record? Or perhaps an Elder they felt who should be interviewed? Other questions we had for ourselves, parents, and the project in general included: What is the overall language situation? How many speakers are there left? Are younger generations learning and/or speaking Zapotec? If so, where are they? If not, why not? Where is the language being used? Where is it being taught? Schools? Homes? If not, why not? Another key consideration was about how we could ensure that Elders and not the technology would take the central role in the learning process. These questions were critical because "[o]ftentimes, technological products and/or software are accepted and utilized without considering the possible ramifications, which have included the invasion of privacy, digital public domain used for personal gain, the misuse of control … manipulation" (Delgado, 2003 as cited in Galla, 2016, p. 1139). Thus, as Galla (2012) aptly noted, "the integration of technology requires ethical awareness and an

understanding of its role within the Indigenous community" (p. 61). Ethics, whether concerned with the visual or technological, is like language revitalization in certain ways in the sense that being ethical is a complex undertaking that requires individual and communal discussion and commitment. It was for this reason that we also felt that it was crucial to invite parents, Elders, and other community members not only to follow the community mode of participatory decision making, but, more critically, to collaboratively help develop protocols or a code of ethics around the use and rationale of these new and emerging technologies that our collective and community could follow in the project. These questions helped to further articulate a working framework that could also provide, as Galla (2016) has noted, and serve as an introduction to recognizing, specific rationales that lead Indigenous language learners and speakers to use technology.

Honoring Elders and Community Protocols/Ethics

Youth are increasingly oriented towards global mass media and consumerism and away from the traditional culture of their Elders. This question became a key consideration between José and me and it engendered much-needed reflection as well as further important questions to keep in mind. How do we mitigate this intergenerational divide? How do we sensitize youth about the importance of Elders in the community as well as in terms of their knowledge of our language and culture and the wisdom that they hold, while not alienating them? How can we reconcile the fact that we are using a device or media form that is creating a gap between Elders and youth? How can we also communicate to Elders and youth that these devices, when used thoughtfully, can be a powerful learning tool? How do we express to Elders (and parents) that while it is true that youth spend exorbitant amount of time on these devices, and that this may seem to the untrained person to be simply playing or wasting time (and sometimes this is the case), they have acquired valuable technological and media skills that can support knowledge and language transfer?

José suggested that we address some of these complex questions by ensuring that we have at least one Elder present at the workshop to help guide and participate in our *asambleas*, or reflection circles, so as to be able to create a dialogue between these generations. We felt that by bringing together Elders and youth, we could sensitize Elders to the fact that youth bring an understanding of and proficiency in the use of technology that can be beneficial in preserving language and culture for future generations. This could be harnessed to attract more youth to learn their language. Youth need to understand the importance of Elders in their role in the community as well as for their knowledge of our language, their wisdom, and the culture that they hold. We felt that this could be an important opportunity for both Elders and youth to come together to learn from each other as well as ask each other questions to better understand their generational perspectives and experiences with the hope that they could then better relate to each other.

Another way of helping to sensitize youth to the role Elders play in our community, and of teaching them how to interact with Elders, is by introducing them to our experience of work and to the concept of *binni guenda bianni'*, which literally translates as people creating light (Royce, 2011). It is a term usually reserved for Elders and wise people in the community, and can include anyone from *campesinos*, dancers, *totopo* makers, and *tamale* makers such as Na Modesta. Individuals in our community who are known as *binni guenda bianni'* have dedicated the better part of their lives to learning and perfecting their craft, such as Na Modesta who spent over 50 years making *guetabiza* (black bean tamales) or my great-grandfather who was a *campesino* who worked in the field from the age of 8 and came to understand how complex environmental factors, such as winds and constellations, affect the growth of crops. *Binni guenda bianni'* are individuals who, for Patterson Royce (2011) are not afraid of change. Like Na Modesta, they "listen and are willing to act as guides for others who seek them out … believing that the gifts they have are only loaned to them; they do not

own them, nor do they make any claim to privilege" (p. 3). Elders like Na Modesta see their "role as vessels for the light and practice making themselves into the best possible instruments" (Royce, 2011, p. 3). Moreover, José and I wanted to elucidate what we have learned when working with Elders and with any *binni guenda bianni'* to highlight the importance of showing respect. This involves making sure to greet Elders, being cognizant of their age and abilities when planning meetings, like not expecting an Elder to do something in the evening for example. It also involves being appreciative of their taking the time to share their knowledge. Respect also means being punctual and ready to learn or work, as well as keeping your word. If you schedule a meeting you must ensure that you show up and if you promise to show your progress to an Elder or give them a copy of the final product, make sure that you do. Unless the Elder is your relative, you also have to give them time to open up. Be aware that you earn their trust, by showing them through your actions and dedication to learn, and recognize that a relationship with an Elder does not happen overnight. A project may be over, but your commitment and relationship with that Elder is never over. That means checking in on them and continuing to learn from them and finding ways to be part of their lives, whether it is helping them with tasks or simply keeping them company. Of course, this is not an exhaustive list, and we planned to have Elders and parents add to this list of protocols.

Since this project was being organized in collaboration with the *Binni Cubi* and promoted as such in the community it was imperative that, as a collective, we shared with the young participants the guiding principles, protocols, and ethical practices used by our collective. José noted that in some ways these participants would be representing the collective, albeit briefly, which is why we both felt that it was important that our guiding protocols were carried out in the same way as was the case in all our other projects we did in our community. According to José, it is these protocols and guiding principles that the community has not only come to expect from us, but they are also

why our community has continued to respect and support our work for the last 16 years. This is why it is important that all our participants, whether youth from our community, collective members, or academics, follow and uphold these principles in any work that represents or is connected to our collective. The following are the some of these principles that we knew had to be observed and followed:

- Ensure that Zapotec culture and values, such as *guendalisaa, xneza, comunalidad, asemeblas*, collectivity, reciprocity, respecting and honoring of Elders and their knowledge, time and company are upheld. Respect and honor the sacred in the community sites, along with all forms of sacred or ancestral knowledge that guide community projects.

- Ensure that there is adequate planning and promotion so that the community can be involved in consultation, input, and decision-making processes before any project is undertaken in the community or any decision made.

- Ensure that all the results and or experiences of any project are shared and made available to the community or to any member. Also try to respond to, reflect on, and find ways to take into account any suggestions or feedback given in hopes of improving or addressing the project or future projects.

- Ensure and celebrate the continuity and or perpetuity of our language and cultural practices in all its forms.

- Promote, create and develop educational initiatives that support and ensure all aspects of Zapotec culture and knowledge.

- Ensure that a project, initiative or research is directly beneficial to the community.

- Ensure that the community has opportunities to participate in all aspects of a community initiative and/or in any research project.

- Create opportunities in the community in order to foster the best conditions to nurture ancestral, intellectual, and artistic capacities.

- Preserve and honor our natural resources, ancestral practices (such as leadership), and language.

- Ensure that local leadership and administration is accountable to the needs and agendas of our community.

- Educate others about the Zapotec way of life.

In **Chapter 4** I introduced the concept of *guendalisaa*, which is and has always been the guiding concept, theory, and praxis of our collective. It expresses the idea of collectivity and action for and with the community and its well-being. However, all these initiatives undertaken by our collective with the aim of serving and benefitting our community are always done and guided by what we refer to in Diidxaza as *xipá*,[61] which has multiple meanings ranging from honor, morals, attitude, education, civility, conscience, and ethics (among others). Ethics and protocols in Diidxazá, like other Indigenous languages (Kovach, 2009), are not differentiated from values, but are, rather, interconnected, and are about promoting *xneza or* goodness, fairness, and correctness in your everyday life and environment. Anyone working in our collective and community should always work and conduct themselves in a way that reflects *xneza*. These were some of the fundamental elements that José and I felt were important to share with and be understood by the participants as well as be embodied in all aspects of this language and cultural revitalization proposal.

What we found out through this process of pre-research consultation was that it takes a great deal of time. Many people from outside the community not used to an *asamblea* decision- making process would perhaps be frustrated because things seemingly move more slowly, and decisions are not made quickly. But that is because this process brings things back to the community to hear what its citizens have to say, and asks for their ideas and input. While consensus is not always reached, what is

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[61] Your way, your habit, your attitude, your education, your reason, intimate discernment, reasons, morals, ethics, good sense, values, thought, thoughts, honor, civility, conscience.

integral and expected is that the community is included and that thorough discussions are had before undertaking a community project. This process is carried out to continue our ancestral ways of decision-making, and also to take the necessary steps to ensure that the community's concerns and input are answered and addressed and that the community is ultimately satisfied with the project. As a result of the process, many suggestions and improvements, as is clear from the above, were made to the design of the project, and refinements were also made to the research questions. For example, I was given the suggestion to use a Zapotec lens and our philosophies and practices as bases for carrying out the entire project. I was very relieved because I felt that I may have had to choose an academic framework over our community one, but, through this process, I realized that I could combine them and that they were not mutually exclusive.

Pre-knowledge Creation/Data Collection Phase

Determining whether a cellphilm approach was a viable method was a matter discussed in the pre-consultation portion of the project and I was told that anecdotal evidence from José, relatives, and other community members pointed to there being a "great number of cellphone users". On my last visit I did notice that there was an increased use of cellphone and other mobile devices like iPod touches, tablets, and MP3 players with video capabilities, particularly among youth, which is one of the reasons I saw cellphilming as a promising approach.

I should however note that I did bring with me two 5th generation 32GB iPod touches as backup devices in case any participant did not have access to a mobile device, but I also used one of them to make my own cellphilm as well as to document the process[62] while the other one was for José to enable him to make his own cellphilm. However, it was made clear that all participants should bring their own mobile device

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[62]   Unfortunately, most of my images and videos were lost due to a technological glitch or error in the device.

whether it was a phone, tablet, or other recording device such as an iPod touch or MP3 player with video recording capabilities.

Promotion of the Workshop and Participants

The recruitment process was spearheaded by José Arenas, who initiated a two-week campaign to promote the workshop by word of mouth; through interviews on local television; in the local newspaper; and on various radio stations (including the *Binni Cubi* community radio station); via mass text messages; through Facebook and other social media, such as *Zapotecos del mundo* (a Facebook-type site specifically for Zapotec people); in presentations at the local middle- and high-schools; and through teachers' and parents' recommendations. We promoted the workshop as a documentary filmmaking class, focusing on Zapotec language and customs. It was only when we met with the participants that we explained the process of cellphilming, which we eventually referred to as *cinemobile,* as suggested by some of the participants. To follow up for future events and see what means of promotion were most effective we asked participants how they found out about the workshop. Unsurprisingly the majority of participants found out through social media, Facebook, while the rest heard about it from word of mouth and from our presentations at all the local schools. Interestingly, very few even saw the TV promos we did, which may suggest that most youth in Union Hidalgo find information, whether it be news, or other events, primarily on social media sites and on the internet.

Figure 5.1. Circulating a promotional poster on social media.

Participants

The research project focused on developing educational strategies that center on youth and their use of technology in order to support the transfer of Zapotec language and culture from Elders to the new generations. Using purposive sampling, specifically aimed at youth who were most affected by this language loss crisis, and pairing them with Elders/ *binni guenda bianni'* /knowledge and language holders from the community, the project therefore included a wide age range of both young women and men between the ages of 13 to 18 (with the exception of a 26-year-old female participant), alongside female and male Elders ranging from 56 to 86 years of age. There were 35 participants who attended the orientation and first weekend of the workshop. The majority of participants, approximately 95%, were young women. The number of participants, it should be noted, diminished over the course of the month because of a strike, but also

because of the chikungunya epidemic which affected the entire community including my friend and Co-PI Jose and, eventually, me. Moreover, all the younger participants were either middle- school or high-school students and the majority were members of the Zapotec nation from Union Hidalgo, while others were from the neighboring Zapotec community Chicapa de Castro. The two male Elders (one was 57 and the other 59) who participated in the classroom workshop component were from Union Hidalgo. They were both teachers in Zapotec communities and fluent Zapotec speakers who played a vital role in terms of defining Zapotec terms, providing the etymology of words, as well as knowing related oral histories. The other Elders who participated in the cellphilming (embodied video documentation in the field) component of the workshop also included men and women from a wide array of ages, from 65 to 87 and from varying backgrounds, such as *guetabicuini* (tortilla) maker, market vendor, hammock maker, sand extractor, grandmothers and mothers, and a traditional regalia seamstress, almost all occupations associated with traditional Zapotec practices. Moreover, these Elders were either chosen directly by the participants and were, in most cases, a relative. In some cases when the younger participant did not know an Elder who was practising the traditional occupation of interest, for example someone who makes *Lári sti xquidxinu* (traditional regalia), Jose or I arranged the pairing. There was, however, one case of a group of participants who did not choose to work with an Elder and decided instead to make a cellphilm that featured a 17-year-old young man who was a fluent Zapotec speaker, an extremely rare person in the community of Union Hidalgo, which is why they chose to highlight this young man.

Producing Cellphilms

Building on Indigenous models of experiential learning (Horner, 2013; Kovach, 2009; Luna, 2010; Rendon Monzón, 2003) coupled with participatory video principles (Mitchell, 2011; Schwab-Cartas 2012; Corbett et al., 2009) I set out with a central question

for the participatory cellphilm workshop: How can emerging mobile technologies like smartphones and iPods be used to integrate traditional practices into the process of language transfer from Elders to the new generation? In order to address this question, I based the multigenerational workshops on three core goals: connecting youth with Elders; making ancestral practices and Indigenous epistemologies central to the participatory cellphone video approach; and using available resources, such as the participants' own cellphones, to develop sustainable community-based action.

Intergenerational Workshop

As with all projects that I have undertaken in our community I was in the community the entire duration of the workshop including pre and post workshop. During that time I lived in my grandfather's childhood home, which now belongs to my uncle and elder Ta Narano Arias Cartas and my aunt Elsa Arias Ruiz and it is there that I have always stayed since I first entered our community. And as my uncle and other relatives have always said to me in regards to this home, "son it is and will always be your home!". Our family home is located in what is referred to as "el centro" borough, which was conveniently located close to the space that was rented for the workshop. Moreover, the space rented for the workshop was located right in the center of town, above the first internet cafe of the community, it belongs to one of José's brother's and has long served as a meeting point for our collective. Unfortunately the Liidxi Guendabiani or community house of culture, which is also located at the center of our community does not have the space (due to poor design), but unlike our space does not have wifi capabilities like the space we rented. Also due to the fact that the house of culture tends to have different agendas and goals that change with each incoming municipal government it has never been seen as a space used or trusted by the community for that reason. The space we chose is also located conveniently beside both local and regional bus terminals coupled with the fact that it is in the center of town near a city

market, which also means that it is a high volume location and was chosen for not only easy access to members of the neighboring community who participated, but to also potentially attract more participants. In addition to this our community radio station is also located in the same building as the workshop, which has always served as a meeting place for members of our community to share, discuss and even air on the radio their opinions and views with the community, which is another reason that this space was chosen.

The total budget of the workshop itself including the screening several months later was approximately 12 000 dollars not including my personal expenses (food, travel, vaccines etc.) Within the budget expenditures included a laptop, two 32G ipod touches 5th generation, CD burner, three terabyte external drives (all the technology with the exception of one ipod touch that ceased to work due to the heat was left in the community with our collective, so as to have a media center that anyone in the community could have access to, but also aid with the community radio station). Beyond the technological expenditures, the costs also covered rental for our space, screening equipment (projector, chairs, sound system), a stipend for José Arena's as the project co-principal investigator, a stipend and accommodations for guest speaker, food and beverages for participants, promotional posters, and stationary (photocopies, pens, pads of paper, poster board etc.) and lastly a stipend for a translator to aid with Zapotec to Spanish translation.

The group itself was composed of nine participants: four females and five males[63], one of whom was an Elder. Participants were asked to bring along any recording device they had, whether it was a cellphone or other mobile device, such as a tablet or an iPod. Many brought with them a cellphone or a digital camera, and in some cases a tablet. We began our workshop by asking them if they had any experience of making their own videos. Unsurprisingly, almost all the youth participants, and even

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[63] In the end there was a total of nine participants due to the community wide chikungunya epidemic, region wide school strikes, and some simply due to a lack of interest or conflict in their schedule.

one of the Elder participants, were adept at using their cellphones for taking pictures and videos and posting them on either YouTube or Facebook. Overall, this approach took advantage of youths' technological and media-making expertise, as well as the fact that youth in Union are already exploring their world through their mobile devices. However, as José noted, youth in Union are documenting their Zapotec language and culture in a very casual and/or incidental way, so the aim of this workshop was to refocus their everyday media-making practices while avoiding centering on the cellphone or mobile technology as the only driving force of the approach.

The series of workshops took place three times a week over a two-month period. Each session was approximately four to five hours long. In this time period approximately 120 hours were spent with participants discussing and reflecting (via *asambleas*) on issues of language loss in our community, screening Indigenous made film, instructing them on the six steps of creating their own cellphilms, protocols for honoring and working with elders and technology, assisting them with filming their cellphilms were some of the activities spent during this time frame. It should however be noted that within these 120 hours of face to face time with participants, it does not include time participants spent on their own with elders outside the workshop, shadowing them to create their storyboards, nor does it include the time spent editing cellphilms with some of the participants or the screening portion. These last two activities, editing and screening the cellphilm, which also included an *asamblea* to reflect on both the process and the participants cellphilm was done on the follow up and required an additional 20 hours, so in total 140 hours were spent with participants.

Our participatory cellphilm workshop thus combined *comunalidad* and Indigenous models of experiential learning (Horner, 2013; Rendón Monzón, 2003), exemplified in Na Modesta's approach of creating an immersive experience (Schwab-Cartas, 2012; 2016). This approach locates video documentation and cellphilming with language learning through action, such as making tamales or carrying out other

embodied ancestral Zapotec practices. It teaches the participants not only Zapotec and local ancestral practices but also traditional values of *comunalidad*, which gives participants a sense of community, local customs, and a connection to the land.

The guiding question for the participatory cellphilm workshop was this: How can emerging mobile technologies like smartphones and the iPod Touch be used to integrate traditional practices into the process of language transfer from Elders to the new generation? The multi-generational workshop participants were made aware of four core goals: (1) connecting youth with Elders; (2) making ancestral practices, including language and Indigenous epistemologies, central to the participatory cellphilm approach; (3) using already existing technology, such as the participants' own cellphones (or mobile devices) to develop a sustainable community-based action; and (4) the creation of a cellphilm of 90 seconds or more, which focused specifically on a Zapotec practice, for example, embroidery of *traje* (traditional regalia), farming, selling at the market; the entire encounter had to be in Diidxazá . In the next section, I offer a six-step process based on how we conducted our cellphilm workshop in Union Hidalgo. This process is adapted from the eight-step cellphilm-making process discussed by Mitchell et al. (2014). It had been adapted to fit the context of our Zapotec research project and to resonate with my own language revitalization experience with youth and Elders in Union Hidalgo.

The Six-Step Cellphilm-making Process

The six-step cellphilm process[64] used in this project draws on the extensive history and work of other cellphilm practitioners and theorists (Burkholder, 2017; MacEntee, 2015; Mitchell et al., 2013) who have developed different yet overlapping stages of the

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[64]   A version of this section also appears in Schwab-Cartas, J. (2018). Keeping Up with the Sun: Revitalizing Isthmus Zapotec and Ancestral Practices through Cellphilms. *Canadian Modern Language Review*, *74*(3), 363-387.

cellphilm process based on their participants and on facilitators' goals and foci of the research. However, these stages used by other scholars are based on the pivotal work of Mitchell et al. (2013), who first created an eight-step process of cellphilm-making based on their existing practices in participatory video, which they integrated into what they describe as integrated NER (No-Editing-Required) and OSS (One-Shot-Shoot) participatory videos, completed during what they call "digital retreats" (p. 3) or workshops with research participants. This step-by-step approach is typically completed in a few hours but can also be done over the course of several meetings, which was the case for this project. The following steps were influenced by the work of other scholars but adapted for a Zapotec context.

Step 1: Developing and Discussing Prompts

Before we discussed and shared the prompt that guided our research project, José and I presented a small PowerPoint presentation on global statistics about Indigenous language loss. We then moved on to discuss the current state of language attrition rates in Union Hidalgo and shared our personal stories of language loss and how it has affected our lives. Of course, all the participants could relate to this topic, and it subsequently prompted in-depth discussion and reflection among the group. Many participants expressed either regret at not learning Zapotec from their grandparents or anger toward their parents for not teaching them, and many noted that it should be taught in school.

Developing a prompt is a difficult task, and as Mitchell (2011) asserted, it needs to be considered carefully because it helps guide and structure what the video will be about, as well as ensuring that it is directed at "something open-ended but that is also quite specific" (p. 55). However, Mitchell also noted that "because the focus of each project differs, it is difficult to be prescriptive" (p. 55). Therefore, since this workshop was aimed at addressing language loss and finding ways to perpetuate Zapotec

language and culture in Union Hidalgo, we asked participants to think of a word in Zapotec that they felt they could express in or adapt into a short video, or to think of one with which they had a personal connection, whether it was because they heard it or because they associated it with a family member's practice. José and I thought that this was broad enough for us to get the participants to start thinking of Zapotec words, but more specifically our hope was to get them to consider when they use Zapotec, if they do, and in what contexts, and ultimately to think about language loss and what it means to them. That may sound like a lot to consider in constructing the prompt, but many of these issues emerged during the first phase of the workshop and were elaborated upon during the brainstorming stage, to be discussed next.

Some of the Zapotec words that the participants came up with included *Libana* (an almost extinct form of Zapotec liturgy), *xuba'* (corn), *guchachi'* (iguana), *bidaani'* (traditional regalia made and worn by women in our community), and *dxiiña* (a Zapotec trade, craft, or community occupation such as tortilla-maker or agriculturalist). When one participant was asked, for example, why she chose the word *Libana*, she stated that she had heard her great-grandmother use it but wasn't exactly sure what it meant or entailed. So, in that case it was both a personal connection and a further exploration of the word and its attached practice or tradition.

Step 2: Brainstorming

After the prompts had been developed, participants were given time to discuss them. This was a wonderful exercise because it not only compelled the young participants to start to think of terms in the Zapotec language but also, more crucially, prompted many of them to start speaking and thinking in Zapotec, reconnecting themselves with their language and culture. In addition, they had to connect their chosen word to a specific practice in our community or a personal experience in order to tell a story visually with their cellphones as video-cameras, as opposed to thinking of the word in isolation. For

example, the group that choose the term *bidaani'*, which refers to our traditional *traje* (vestment), thought of several things associated with it, such as the context in which it is worn, the mother or grandmother who makes it, the social stigma of wearing it outside our community, and why youth are not wearing regalia any longer. In other words, it created a web of associations that could later be transformed into a short cellphilm; the exercise catalyzed a reflection on socio-political issues associated with the word and the practice. It also allowed the youth participants to make a personal connection with that word and/or practice as it pertained to their lives and express why and how it was relevant to them. Lastly, the exercise connected young people with Elders in our workshop in such a way that both generations could listen and learn from each other. For example, younger participants discussed what that word or practice meant to them, which prompted the Elders to further elaborate on the word or correct their understanding of it and explain how it has changed over time. Alongside the intergenerational dialogue, the activity also engendered discussion among the youth themselves about these practices and their understandings and experiences with a given tradition, thus fostering a peer-to-peer learning-and-teaching cycle.

Step 3: Writing a Script and Storyboard

Next, participants were asked whether they wanted to collaborate with others or work individually as they wrote their stories or scripts. After they had made their decisions, this step took the most time – several weeks – and seemed to be the most difficult step for many of the participants because it required youth to pair up with and shadow an Elder who performed the Zapotec practice that would be the basis of their cellphilm. José and I suggested that before they could write their script or storyboard their cellphilm, they needed to experience and observe the Elder carrying out a specific practice or ritual, whether it was making *totopo* (oven-baked tortillas) or embroidering *traje*, for example. The point of this exercise was twofold. First, it exposed many of these

youth to a practice they were unfamiliar with, rupturing the doxic experience—taking one's social world or culture for granted—and this engendered a process that many participants said forced them to "relook" at our Zapotec practices and reassess their personal relationship with them. The second point served a more practical purpose, which was to familiarize the youth with the Zapotec practice in order for them to be able to plan their shots and scripts.

Many of the young participants felt that this step allowed them to bond with Elders. This allowed them a more in-depth and intimate understanding of the practice being observed, which was a result of the trust and confidence they established with their mentor and Elder. One participant said that they were treated as one of the family, which made the process of filming and participating and learning almost one and the same, because they were included in all the steps of the process like a family member would be.

Step 4: Filming and Editing

After brainstorming and storyboarding the cellphilms, participants went on to film their ideas. Even though almost everyone had used their cellphone to make a video, it was still important to sensitize the participants to some basics of filming with a cellphone, for example, considering lighting, or shooting in landscape mode (holding your phone horizontally) to avoid thick black pillarbox bars on either side of the video. And perhaps the most important reminder was the importance of sound, particularly since these videos were also meant to document the Zapotec language, which meant shooting at a close enough distance to ensure the audibility of the Elder speaking.

In this step, I introduced two approaches that can be employed in cellphilming. First, I adopted what Mitchell et al. (2014) refer to as NER (No-Editing-Required), which can be used when time and access to computers are factors. The process involves carefully planning one's shots via a storyboard and then, after shooting each scene,

to then pause before shooting the next one. The participants follow this procedure until their film is finished, in one take, which typically takes 30 minutes. The second approach that I introduced was the more traditional approach of shooting short video clips that can then be edited, using a computer or editing app, into a film of varying length. With this approach, the participants can then also include music and subtitles. Both approaches of course have their pro and cons, such as the time involved and the training needed, as well as one's access to editing apps and software. In our workshop, all the participants chose the latter approach because they felt it looked more professional. The two cellphilms that were fully completed during the workshop period were Xquenda produced by Orquidia Torres and Leonel Nisa: Nguiiu Riguba Yuxhi, which was made by two participants alongside José and myself. Both of these cellphilms were edited in the rented workshop space with my assistance using final cut pro X, but the participants had complete creative control over the final product, including music and scenes that they felt were key to their vision and story. The entire editing process for both these cellphilms was around 10 hours including screening them for the Elders who participated in them. As for later cellphilms made by other participants, such as Giovanny de Jesus Rodriguez Cazorla and other participants were edited by themselves. Many of the participants already had sophisticated video and audio editing knowledge and used various apps on their phone or adobe primer to edit their work.

It is interesting to note that many of the participants noticed that many of the Elders being filmed had a remarkable ability to stay focused as they filmed, which participants attributed to the unobtrusive nature of using a cellphone to film. One participant said it was as if "I wasn't even there," which allowed her to focus and absorb what she was learning and filming. This is because mobile devices have become so ubiquitous in our community that their presence and the act of filming are no longer remarkable. In many ways, the cellphones and iPods led participants to feel that

cellphilming allowed for a more spontaneous and intimate type of filming, enabling learners and participants to have a more embodied and engaged experience with the process that they were observing (Schwab-Cartas, 2016).

Step 5: Uploading the Video (Optional)

This was an optional step, but it is understandable that participants would want to upload and share their work because they were proud of their short films. However, before they did so I explained to them that they needed to consider a couple of issues. For one thing, they needed to be cognizant of the appropriateness of what was being shared outside our community. Was the content something sacred to our people and community, such as medicine or recipes that belong to certain families? Just as important, based on my past experience of working with Elders and people in our community, we asked them if they had received permission from the Elder(s) with whom they had worked to share the video publicly and online because understandably not everyone wants to have their likeness shared online or publicly.

Step 6: Screening the Final Product; Reflecting on the Process and Discussing Possible Future Action

In the end, a screening of three cellphilms (two partial ones) was attended by the participants and some parents and friends. Once more, the chikungunya viral outbreak prevented us from having a wider screening. However, beyond screening the cellphilms, it was an important platform for me, José, and the participants and their guests (family and Elders) to reflect on the process and the workshop. Reflection is a fundamental component of this participatory cellphilm method because it allows us as a group to gauge the successes, the shortcomings, and what can be improved on in the future, along with how this can be done. What do participants like about the approach? What would they do differently? Another element in this step involved asking the

participants what they were going to do with their cellphilms. Were they going to screen them to their friends and family? Would they be organizing a screening for their school or uploading them to YouTube or social media? Also, were they going to attempt to make more cellphilms in the future? These are some of the questions that José and I posed to the group during this final step. Of course, each workshop or context is different, so new questions are likely to emerge.

Cellphilming and Guided Participation with an Elder

Jose and I not only facilitated the process between the Elders and the young people, but we also participated in the actual process of making a cellphilm. We felt that it was important to show the young participants that as Zapotecs we are also committed to continuing to learn about our language and our ancestral practices in the hope of transmitting them to the next generation. We also emphasized for the youth participants that in doing this type of community cellphilm, following Maldonado (2010), we were all engaged together in the act of decolonization, exercising our autonomy as Indigenous Zapotec people, and celebrating practices that have been our way of life for centuries. In addition, having both worked on several community projects that included film-making, we felt we could impart to youth participants certain protocols that need to be followed when we are engaging with an Elder, and the kind of responsibility we have to any member of the community with whom we are filming or working.

Our group was made up of José, Soledad, a 14-year-old female junior high student (Jose's cousin), Pedro, a 17-year-old male high school student, who turned out to be one of two fluent Zapotec speakers in the workshop, and me. The Zapotec prompt our group collectively chose was *dxi'ña* (as already mentioned, a Zapotec trade, craft, or work). José suggested that we make a cellphilm about the local resident, *Leonel Nisa* (water) "the Sandman" Ruiz Ruiz, who has, for the past 20 years, unearthed sand at Rio Santos for the community residents to build houses and other community

structures. At first it seemed a rather mundane story to tell, but as Jose explained to us, this is a practice that is slowly disappearing in our community and Leonel is one of the last eight people who still continue this tradition in our community. Moreover, he continues to use his ox-drawn cart to transport the sand, which for many people in our community is akin to women wearing woven regalia, or akin to using our language, because it represents continuity over hundreds of years of our cultural practices despite attempts at assimilation and the growing effects of neoliberal globalization. Our group met up with Leonel ahead of time to discuss our cellphilm project, the goals of our workshop, and also to learn more about him and his practice of extracting sand, and why it is significant to our community. A few days later Leonel invited us to join him as he engaged in the process of unearthing sand. We met him at his residence at 5 in the morning on his way back from the *milpa*.

On the morning of our arranged meeting, José, Soledad, Pedro, and I met a half-hour earlier to discuss our roles and to familiarize ourselves with the equipment I had brought for us, including a Canon Rebel t5i, two iPods, a tripod, a cellphone monopod, and sound equipment. To my surprise and delight Soledad and Pedro both instantly gravitated towards the iPod Touches; I had assumed that they would have wanted to use the flashier, high tech Canon DSLR. When I asked them about their preferences, they said they found the DSLR intimidating and complicated, while with the iPod Touch it took only five minutes of practice shots for them to feel at ease. They said they felt confident using the iPod because it reminded them of their cellphones; all they had to do was "just point and shoot." We saw Leonel in the distance on his ox-cart and without any hesitation both Soledad and Pedro automatically began filming on the iPods, spontaneously synchronizing their takes between themselves. Their filming was indicative of their inherent confidence and expertise with this handheld mobile equipment and came from years of engaging with their own cellphones. I could tell as the project progressed that their adeptness with their mobile videography gave the

youth onfidence to engage actively with their Elder in the learning process.

Leonel directly involved us in his work by allowing us at certain points to actually handle the ox-cart ourselves as he informed us about various aspects of his work that relate to his profession and, more directly, to Zapotec traditions. For example, we learned new terminology such as *Yuxhi*, or sand, but we also learned that the river and the sand belong to everyone in the community; they are among the few resources of our community that continue to be communal property or what is known locally as *ejido* land. *Ejido* land, unlike land in the parcel system that is predominant in our community, is owned by the community as a whole and anyone of us can reap the benefits of that property as long as we continue to work it. When we eventually arrived at the edge of the river Leonel insisted that we not film him from afar, but, rather, join him. He told us to climb aboard his ox-cart and warned us that the water at that time of the morning would be cold. Soledad and Pedro filmed the entire journey on the cart, and when we arrived at the point of sand extraction, both Soledad and Pedro continued to capture a wide array of shots, such as extreme close-ups of Leonel's hands as he extracted sand, his interaction with his oxen, and how they would move to anticipate his movements, the current in the river, and the trees blowing in the morning air. When we hopped out into the cool water, we could feel the soft sand under our feet while the current pushed us from side to side. Leonel spoke to us primarily in Zapotec and did not really seem to notice that Pedro and Soledad were filming; he continued with his work as if we were not there.

Leonel's ability to maintain his focus on work as we filmed him points to the potentially unobtrusive nature of cellphilming. Because mobile devices are ubiquitous in our society, their presence and the act of philming is no longer remarkable. Instead, these devices are as mundane now as wristwatches, and the notion that someone might capture a moment on video for YouTube is unremarkable. For our ancestral practice documentation project, this allowed our philmers to be there as participants, but to be

almost invisible as videographers. In many ways the cellphone/iPod allows for a more spontaneous and intimate type of filming, which allowed us as participants and learners to have a more embodied and engaged experience with the process we were observing. Moreover, because of Soledad and Pedro's familiarity with and knowledge of the equipment, it allowed them to have a personal vision and greater control over their own stories which, in turn, permitted each of them to focus on aspects of the process that spoke to them more directly. For example, Soledad was particularly interested in capturing the interaction between the sandman and his oxen, while Pedro was more interested in the surroundings and Leonel's hand movements.

Through this encounter with the Sandman who allowed us to handle the ox-cart while listening to local and personal histories, as well as learning about local land practices in Zapotec, Leonel wove a complex sociocultural and sociopolitical web that exposed us to a broad range of Zapotec topics that most of our group members do not think about on a daily basis. Moreover, I felt that the significance and strength of the cellphilm workshop approach was that it created an opportunity for participants to not only learn, but, perhaps more crucially, to live our Zapotec practices, history, and language. Upon reflecting on this experience, I felt that in using a cellphilm approach there is further potential to learn and experience many Zapotec knowledges—language, history, oral traditions, ritual practices, song, and cultural institutions—all of which are fundamental elements in our Zapotec lifeways.

Questionnaire

One month after the cellphilm workshop was over I sent out a ten-question questionnaire with a range of questions. Some dealt with general impressions of the workshop and others about what they felt participants had learned about Zapotec cultural practices and language. This questionnaire was sent out to nine of the remaining participants and it was made clear that it was completely voluntary for them

to fill out. In the end four participants responded to the questionnaire. The comments and responses were quite detailed and of these four participants many of them continued to send me reflections, suggestions, and other ideas over the months, so the next chapter reports on these responses alongside comments and reactions that took place during the workshop process as well.

Summary

In this chapter I tried to underscore the fact that that "[t]he research process is never ending [and] it is part of what had happened before and will continue to be part of what happens in the future" (Hampton, 1993, p. 262). Moreover, I also outlined some of the intricacies and responsibilities of carrying out a research project in our community as an Indigenous researcher (IR) and member of a local media collective because as an IR I have the dual responsibility of satisfying both the academy and my community since the 'field' is also their home (see Ives, Aitken, Loftm, & Philips, 2007). Therefore, my responsibility as an IR and member/ally of the community was to create a project which satisfied both my academic institution, of which I am a part, as well as producing a project that will have tangible outcomes for my community. However, to best establish that this project produced concrete results, while also ensuring that the community's concerns, goals and agendas have best been addressed, it required additional steps such as a pre-consultation which involved numerous discussions on various topics, such as honoring Elders and weighing out the benefits and disadvantages of using technology to revitalize a language, to name two topics. Taking the time to consult with members of my community and the *Binni Cubi* collective through *asambleas* was also another way of ensuring my project and research was situated within a Zapotec driven paradigm underscoring *comunalidad* and *guendalisaa*, which was critical to ensuring that the project was carried out according to the appropriate codes of conduct that honor local Zapotec understandings of knowledge and worldviews while also emphasizing the importance

of future generations, constructing consensus, and collaboration. These additional steps were also described in this chapter because they are not only fundamental elements of the participatory cellphilm methodology used in this project, but it was also a way of Jose and I ensuring that this methodology did fit within a Zapotec epistemology and pedagogy as a means of critically addressing the crisis of language loss in our community. Moreover, this chapter also described how this participatory cellphilm approach was grounded in a Zapotec paradigm by using Zapotec words as prompts while also providing observations and participants' insights on each of the six steps listed. Other issues raised in relation to these six steps also included questions about the potential risks of uploading video content and how to mitigate potential harm to the community and participants. I included detailed description of the cellphilm experience in which José and I, alongside two young participants, worked with Leonel, an Elder known as the Sandman, during which we observed his practice of extracting sand while learning words in Zapotec as well as details of community oral histories.

6

Walking Together to Create Knowledge

A circle is not a triangle.

Claudia Mitchell, personal communication, May 4 2018

Segmenting the work into a section that deals with how I generated the data, another that looks at the data, and then one that describes how I analyzed and coded the data feels disconnected from the collaborative participatory Indigenous paradigmatic approach suggested by, for example, Kovach (2010) that is circular rather than linear. A project that is grounded in an Indigenous worldview or paradigm must privilege "holistic interconnectedness, collaboration, reciprocity, spirituality, and humility, in contrast to Western notions of dichotomous thinking, rationality, and individualism" (Flicker et al., 2015, p. 1149). In such an Indigenous paradigm it is important also keep in mind, as Cochran et al. (2008) have noted, that "the intentions of data collection

become as important as the knowledge acquired" (as cited in Flicker et al., 2015, p. 1149). Indigenous thought focuses on the whole picture—everything in the picture is related and cannot be separated, which is why it was impossible for me to talk about the research process and product as separate, any more than I can conceive of our thinking of our language as being divorced from our history, ecologies, community, and families. In this chapter I try to incorporate both process and product as central to talking about what it means to walk together to create knowledge as a collaborative or collectivist process. What I mean here is that the following information was created not with the imposition of a classical hierarchy of researcher and subjects or participants, but rather with us all walking side by side to develop and address the problem of language loss that affects all of us as Zapotec people. This loss has led to the erosion of our culture and identity. As can be seen from the participants' responses in this chapter, this loss affects all of us, sometimes in different ways and sometimes in similar ones. As a community and as concerned individuals it was important for us as Indigenous Zapotec people concerned about perpetuating our way of being in this world to understand the many perspectives that exist in our community, particularly those of our youth who make up the next generation of speakers and holders of knowledge. Therefore, we held *asambleas*, or talking circles, which, as mentioned in the last chapter, have always been used to discuss issues that are of great importance to the community. It is vital to note that almost all findings shared in this chapter and the knowledge created in in this project emanated from these talking circles (including the questionnaires filled out by the participants). They also served as part of finding out how to perpetuate *comunalidad* and *guendalisaa* so that we could walk together to address community concerns. These *asambleas*, which have always been at the heart of Indigenous Zapotec community life, begin with sharing food and introducing the matter of concern, in this case, the project, and then introducing oneself. It is made clear that everyone in the circle is equal, that there is no leader or hierarchy in this space, and that it is a

safe space in which all participating individuals are allowed to share their thoughts, ideas, feelings and opinions openly without fear of being rebuked or criticized. This meant that all participants' comments were in no way limited. It was important to stress that everything that is said in an *assemblea* space remains in this space unless everyone collectively agreed otherwise. These *asambleas* can be seen in the same light as what Maori scholar Bishop (1999) refers to as collaborative storytelling, which for Kovach (2010) "aligns with an Indigenous worldview that honors orality as a means of transmitting knowledge and upholds the relational which is necessary to maintain a collectivist tradition" (p. 42). Moreover, the collaborative storying process that happens in these *asambleas* "acknowledges that the researcher is positioned as a research participant within the process of storying and restorying that creates the narratives" (Bishop, 1999, p. 6). During this collaborative process of sharing personal experiences and stories the relationship between both parties deepens, trust is fostered among all participants, and a multilayered reflection process that is personal, interpersonal and collective (see Nicholls, 2009) among all the participants takes place. Bishop (1999) noted that collective storying:

> is an approach in which people are able to recollect, reflect and make sense of their own experiences within their own cultural context [that] sets the pattern for subsequent interactions where the research participants engage in an interactive, complex, holistic approach to research. (p. 6)

In the case of our *asambleas*, participants/collaborators came together three times a week for two months to identify problems, discuss, analyze, reflect, and address issues surrounding language loss through the use of cellphilms. Therefore, through these *asambleas* the "interpreting, and 'making sense' of experiences was not left until afterwards to be conducted by the researcher, as suggested in many current thematic analyses (as in Eisner, 1991) or in Grounded Theory (described in Burgess, 1984; Delamont, 1992; Strauss & Corbin, 1994)" (Bishop, 1999, p. 17). Rather, the

interpretation, gathering, and analysis of experiences occurred at the same time throughout the entire *asamblea* and cellphilming process. The implication of this approach is that it reinforces and validates the importance of the young participants' individual experiences, and their perspectives and personal insights into how to address the critical issue of language loss among young people in the community. In this way, their experiences and opinions became the foundation for grounded community action and self-determination. This also ensured that knowledge was being connected to action and that the methodologies being used "flow[ed] from [Indigenous] values such as community accountability, giving back and benefiting the community and the researcher as … helper[s] committed to doing no harm" (Battiste & Henderson, 2000, p. 48).

Thus, I conceived of this project and process as a circular approach beginning with the most obvious fact that *asambleas* are in themselves carried out in circles. The insights resulting from these *asambleas* reminded me of Tewa scholar Gregory Cajete's (1994) conceptualization of concentric rings:

> Every process in nature and society, occurs in a context of concentric rings. Concentric rings radiate from everything and every process. The concentric rings provide a visual symbol of relationship; it is a way of visualizing how all processes radiate concentric rings, which in turn affect other rings of other processes. The symbol of concentric rings is useful in seeing how one thing affects another, how one thing leads to another, and how one thing is connected to another. The concentric ring is also a basic symbol of' wholeness. It allows for representation of' wholeness as the interconnection of many concentric rings of relationship. (p. 118)

Cajete captures the spirit and nature of our work in its understanding of the interconnected and holistic, living and ever-changing nature of the work done by our collective in our Indigenous Zapotec community in the collective creation of knowledge.

The effects and outcomes happened slowly like ripples on a pond, so that at times I wondered if the project was making the sort of impact that was desired, but, as I note towards the end of this chapter, some impacts and actions came months and months after the completion of the workshop. As I learned, the "research process is never ending. It is part of what happened before and will continue to be part of what happens in the future" (Hampton, 1993, p. 262). Cajete also noted that concentric rings are a symbol of wholeness and interconnection, which is at the heart of *comunalidad* and Indigenous thought and picks up in the concept of ridding ourselves of I and replacing I with We. Part of walking together to create knowledge also means reinforcing the view that the participants, as Young (1999) correctly observed, are the best assessors of their own experiences. For that reason, in this chapter I, like Young, also used "participants' own words to present their descriptions of their own experiences rather than trying to interpret them in my own words" (p. 32). Furthermore, as Young pointed out, facilitators or partners in a research process should be given "complete authority and credibility" because the "authentic rich descriptions contained in [their responses] justifies their inclusion" (p. 32).

How the Chapter is Organized

This chapter is organized according to the chronological order of the project and is divided into three phases of the cellphilm workshop project, and a final post-workshop phase. Each phase includes participants' observations and comments and questions. During the first phase, or Pre-cellphilming-making Phase, we reviewed with the participants global and local statistics concerning language attrition, while also offering a series of workshop exercises that included such activities as discussing openly how language loss affects people personally and communally. This exercise then allowed for a greater collective examination of language use and loss in each person's daily life and this led to personal observations on the connections between gender and language.

The second phase, or the Cellphilm-making Phase, began with participants' general observations about mobile technology, which then moved on to collectively watching and discussing Indigenous-made videos to help set the stage for the young participants to create their own cellphilms. This phase also included participants' reactions to creating and eventually screening their cellphilms for their friends and family, as well as some discussion on their experiences and impressions of using this medium as a way of learning Zapotec. The next phase, Reflecting on What We Learned about Zapotec, included participants' reflections on the process of learning Zapotec along with some of their insights gained from learning Zapotec through cultural praxis and the method of cellphilming. The fourth phase, the post-workshop one entitled Taking Future Action, saw the project continue to reverberate and result in action after its completion by some of the participants in innovative and inspiring ways, which left me hopeful.

In the last section of this chapter I look at some of the shortcomings and limitations of the workshop including participants' reactions to a guest presenter, Gustavo Mora, an Argentine filmmaker who introduced the youth to different aspects of having a career as a documentary filmmaker, including familiarizing everyone with professional film equipment.

Phase 1: Pre Cellphilm-making—Looking at Language

Getting Started: Collectively Looking at Language and Language Loss

As already mentioned, the duration of the workshop and project was two months with a scheduled meeting and *assemblea* three times a week. Each session was approximately five hours in duration with fifteen-minute breaks. Participants were asked if they could be recorded (via audio or video) during the *asambleas*, but almost all the participants expressed their discomfort with this. José and I also felt that it would disrupt the trust and threaten the integrity of the *assemblea* space, so the responses offered in the

following sections are based on conversations, field notes written up after the *asambleas*, and a questionnaire. The following sections are comprised almost entirely of the opinions, questions, and comments of 9 young high-school students in dialogue with José and me. Of these students, 5 were young girls and women between the ages of 13 and 26, and 4 were young boys all around the age of 17. Two Elders along with José and me raised the number of participants to 13. It should be noted that the orientation session there were about 35 participants (made up of 28 girls, 2 male Elders, and a number of boys) but this number was reduced significantly for reasons that included the chikungunya outbreak, a school strike, and a lack of interest. While almost all the dialogue and comments in this chapter came from the 9 participants, there are some sections that do include the reactions of some of the original 35 in the form of a show of hands and some comments that came out of the orientation session.

To start the session, José and I gave a short PowerPoint presentation on current global statistics related to language loss. We asked participants if any of them knew how many languages are spoken in the world. None had a clue, but ventured guesses which ranged from a couple of hundred to several thousand. The latter, I told them, was correct, which surprised many of the participants, but they were even more surprised to learn that "a language dies out every 14 days" ("Dying Languages: Scientist fret as one disappears every 14 days", 2013). José then told them that one of those endangered languages is our very own Diidxazá. He cited a study by Héctor Hugo Rodríguez Toledo (2011) a linguistics student from our community, who has been the only person to study language attrition rates specifically focused on our community and has, in fact, produced an in-depth analysis of this. José noted that Rodríguez Toledo's (2011) inquiry concludes that if nothing is done right now to revitalize and learn our language, Diidxazá could be completely silent in our community in as few as 25 years, as noted. José told the group that in the other large Isthmus Zapotec city of Salina Cruz, 100% of its inhabitants once spoke Zapotec, but now, according to the 2015 INEGI census,

less than 6% of the population speaks Zapotec or another Indigenous language. In our community 56.26% of people speak it (INEGI, 2015).

It seemed to us that all the participants (including the parents and Elders) were shocked by the gravity of the situation. This, of course, prompted a number of reactions, questions, and reflections. Several participants spoke about a *bofetada* (an awakening slap).

Soledad: I honestly had no idea that our language was in such a dire situation. Why is our language disappearing so quickly?

Martin: What about Juchitan? Everyone speaks Zapotec there.

José and I explained to the participants that we have a different history and a slightly different Diidxazá that is specific to our community. Also, as José noted, "Juchitan is Juchitan" and we cannot continue to rely on another community to safeguard our community's language. He said, "Would you get your neighbor to do your homework for you? No, so the same thing here. One cannot rely on Juchitan doing this work for us. Learning Zapotec is our homework, It is about learning, so if you get someone to do it for you, you will never learn."

This reminded me of Sundberg's reference to Spivak's use of the term "homework" to describe the activity involved in identifying one's positionality:

For Spivak, homework entails a self-reflexive analysis of one's own epistemological and ontological assumptions; in other words, examining how these have been naturalized in and through geopolitical and institutional power relations/ practices. Doing homework is a key practice in unlearning that which one has learned; unlearning privilege, especially the privilege of sanctioned ignorance that allows the perpetuation of silence about on-going colonial violence (Sundberg, 2014, p. 3)

Soledad: What can be done so we don't end up like Salina Cruz? How can we save our language from the same fate?

Understanding the Role and Loss of Language
in Our Lives through Stories and Examples

We began the exercise by sharing the fact that both José and I are not fluent Zapotec speakers and are also in the process of learning our traditional language. José began by telling the group his back-story and his relationship to Zapotec. As a young man he found it "complicated" and felt that other global languages, such as English or French were more "important" until he left our community and realized how important Zapotec and our traditions were to him. Since he had not left the community until he went to obtain a degree, he assumed that everywhere in Mexico was like our community and region, but in fact this was not the case at all. It was living outside of the community that made him realize how remarkable and unique our culture and language really are. He moved on to tell the group that although his parents spoke Zapotec at home, he never learned it because of the resistance to it in messages he received in school and from others in the community. He did understand a great deal of our language but he could not speak it. He said that he is in the process of learning, but that for him this is the cause of some shame and remorse and he feels like "a fraud at times" because he is the founder of a media collective that fights for the preservation of all of our ancestral traditions. This was a feeling that many of the participants, including me, could relate to.

I related my personal history of growing up as a biracial person who had the good fortune to have amazing grandparents who wanted me to learn our language. I told them that because I have no one to practice with in Canada I was never able to learn our traditional language. I said that although I can understand a good number of words and phrases I was still very much, like José, in the process of learning our language. I also said that felt that by not knowing our language I was not Zapotec enough and that I was missing a large part of not only my identity, but my understanding of our worldview as well. Many people said that they could relate to this and also felt the same way.

José:	Take note that this *compa* (friend) has come all the way from Montreal to continue to learn his language.
Edward:[65]	Why?

I explained to them that being a biracial Indigenous person in Canada I felt somewhat incomplete in a sense because I speak English best, which is a language with which I and my family have no personal relationship and that I felt it was vital to my being to learn the language of my grandparents and ancestors. Also, I want to make sure to pass this on to my daughter eventually.

Soledad:	So what other languages do you speak?
Me:	Besides Spanish and English, I also speak German and I am learning French.
Soledad:	So, if you know such important languages why bother with Zapotec? I mean I want to learn English.
Me:	Why?
Martin:	Well because I think it is important for university and getting a job. Everything is in English and I already know Spanish, so I am not sure how learning Zapotec is going to help me with university or getting a job.

We both explained that English, like Spanish and our language, comes with a unique and specific way of seeing the world. José also noted that in fact there are now many scholarships in Mexico and globally that are based on one's knowledge and command of one's Indigenous language. José also offered many examples of people from our community and other Zapotec communities who have seen the world because of the fact they are Zapotec and know their language and culture. And, in fact, despite what we are told here in Mexico, he said there are many people in the world who are

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[65]   One of the two young fluent Zapotec speakers.

interested in who we are and in our language because it is so different from other languages. Our language is thousands of years old, which comes with an understanding of the world that is rooted in that time and history.

Seeing is Believing: a Language Loss Exercise

José and I wanted to create in a very tangible and embodied way what we were talking about in terms of language loss in our community, so we asked everyone to close their eyes and asked them a very simple question "How many of you speak fluent Zapotec? Put up your hand if you do. Now open your eyes and look around." When the participants looked around a room of 35 or so participants only one had his hand up. One hand out of 35 was quite a powerful way of expressing the crisis that our community is facing. It was also very powerful for us to see the participants' expressions of shock, sadness, and guilt on seeing that lone hand in the air and understanding that there is something wrong with this picture.[66]

> **Me:** What do you feel when you see this?
>
> **Alfonso:** *Es una bofetada ver esto* (It's an awakening slap to see this!) I knew it was bad, but not this bad.

José responded to this by saying that that was the point of the workshop. "The workshop is, in itself, a *bofetada*! It is meant to wake us up and to make us realize what is going on in our community with our culture, and to see that it's not too late because we, as the next generation, can do something to change this. It is up to us to continue the path of our Elders and ancestors to secure this language for the next generations to come."

> **Alfonso:** I am sad to see that hardly none of us speak our language. I thought it would have been more of us speaking it and not this bad.

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[66] After this exercise we asked how many participants understood Zapotec but didn't speak it. The number was significantly higher; almost 60% of the participants said they understood some to a lot of Zapotec. However some of the youngest participants (13 years of age) stated that they understood nothing.

Soledad: I feel sad as well and guilty and lazy all at once because you don't really think about it. I mean you take it for granted that it will always be there because you hear it around you so you assume it's okay and someone else will take care of it or learn it.

Many of the participants were curious about the one participant, Pedro, who is a fluent speaker.

Xunashi: Are you really a fluent speaker or are you just putting it on?

José was also somewhat skeptical that a young man could consider himself a fluent speaker in our community because it is so rare.

Pedro: Yes I am! I have been speaking Diidxazá since I was a little boy.

Martin: But how? Why?

Pedro: I was primarily raised by my grandmother, who was a monolingual speaker, so she taught me and, well, I had no choice either because otherwise I assumed I wouldn't be able to communicate with her.

Soledad: *Pues que padre*! (That is so cool) Can you teach us?

Pedro: Anytime! I would love to be able to speak with people my own age plus the jokes in Zapotec are much funnier!

Guiding Questions: Collectively Examining Zapotec in Our Everyday Lives

The following section shares a series of questions that were specifically formulated to get participants to reflect on the language loss in the community, as well as to better assess and understand their overall awareness and engagement with the Zapotec language and culture in their everyday lives. We wanted to know what role the Zapotec language played in their everyday lives. In many cases participants knew more than they thought. (This was key because there is an assumption by parents and Elders that young people and adolescents in our community are unaware or unmindful of our language and culture. Also, the point of these questions was to sensitize these young

people into recognizing that even though the situation can seem overwhelming and daunting, understanding the role that our language and ancestral practices play in the self of our everyday personal lives is an important place to start. A focus on self is a starting point for decolonization. In *Wasáse: Indigenous Resurgences*, Taiaiake Alfred encourages self-reflection as a path to decolonization:

> "We will begin to make meaningful change in the lives of our communities when we start to focus on making real change in the lives of our people as individuals. It may sound clichéd, but it is still true that the first part of self-determination is the self" (Alfred, 2011, p. 90).

The responses to the following questions will, for the most part, be synthesized because many participants had similar answers and related similar experiences.

1. How has not speaking your language affected you? Or has it affected you at all?

Most participants (including José and I) had similar experiences with language loss. They felt that they could not appreciate their Elders and grandparents and their teachings to the fullest extent because in many cases grandparents were monolingual speakers or had a very limited command of Spanish. One participant stated that she sometimes would not engage with her grandparents because she could not speak to them and could not understand them and so she felt embarrassed. She regrets this dearly because they passed on and she felt that had she known Zapotec she could have had a more intimate relationship with them.

Other participants noted that attending a community celebration or event and not knowing the language made them feel that they were not experiencing it to its fullest, nor are they able to engage at these events with Elders who could perhaps give them more background on the significance of the event or on how it has changed over time. One participant said:

> I know I sound like I am being rude, but I don't greet Elders as much as I should because I feel they will speak Zapotec to me and I wouldn't be able to respond, [so] I either feel embarrassed or I am scolded for not knowing Zapotec, which makes me also feel ashamed.

Overall, most participants felt a loss and one said, "I don't feel Zapotec enough at times even though I am born and raised here if that makes sense." This was a sentiment many of us could relate to. One participant stated that she felt that not knowing Zapotec hadn't really affected her life too much, but she felt that when she goes to places where Zapotec is spoken it frustrated her and she felt that people were talking about her and the fact she didn't understand or speak Zapotec. Overall, participants for the most part felt "embarrassed" and "guilty" and expressed a general feeling of loss in many aspects of their lives interpersonally, intergenerationally, and in terms of identity or deeper understandings of traditions or celebrations. Loss was felt on various personal levels by the participants.

2. What does Zapotec mean to you?

Giovanny: I don't know … It's hard to express what I feel for it … it's our language. The language of our grandparents/Elders and ancestors. It's who we are … who I am … it's our history.

Orquidea: It's who I am … it's part of my identity and it's ours as Zapotec people.

Soledad: I may not know it 100% but I know it matters to me … it's important to me … it's important to my Elders and understanding it will help me better understand our customs, jokes, and history.

Martin: I know it's important, but so is English and other languages. I mean why are we not thinking about something more exciting to talk about such as skateboarding instead of Zapotec. I find all this a bit

boring. Shouldn't we film something that young people are actually interested in?

3. *Where do you hear it most?*

The following are ranked by highest to lowest.

1. *Mercado* (Market)
2. *Milpa* (Maize field)[67]
3. *Barrio Palmero* (The palm weaving borough in Union Hidalgo), *Barrio pescador* (Fisherman borough)
4. Fiestas
5. Home

4. *Where do you not hear it?* [68]

The following are ranked by lowest to highest.

1. School
2. Home
3. *Centro* (the city or community center)

5. *Why have you not learned it? And do you want to learn it? And if not, why not?*

Many of the responses were similar to those offered in reply to the first question but included "not being taught by my parents." Several participants stated, "My parents said I should learn English because that is the future" or said that if you learn Zapotec you will become tongue tied (essentially saying that you will not be able speak Spanish

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[67] Almost all the participants, including José, have not actually been to a *milpa*, but know from second hand information that a *milpa* is a place where Zapotec is spoken almost exclusively. I should note that I have been several times and am well acquainted with them because my uncle is, and my great-grandfather was, a *campesino* who earned a living by working the *milpa*.

[68] It should be noted that Zapotec is still widely heard all over the community, but the point of this was to determine where, in their own personal experience, it was not heard as much.)

properly). This participant added, "Well, it's funny that no one says that speaking Spanish will somehow affect my possible ability to speak English." We saw this as a great reflexive and critical statement by this young participant. Another participant simply stated, "My parents never taught me." Almost everyone in the room could identify with this. Some participants also mentioned that they have tried to learn Zapotec and even taken steps to learning with their parents or with an Elder but they found that the fluent speakers didn't have enough patience with them or their mispronunciation of words, so they were easily discouraged and wished they would be given "sympathy and understanding that [they were] learning a new language that is very different from Spanish." Other participants spoke about the conflicting messages at home, the *salir adelante* discourse, in which, on the one hand, parents overtly promote the idea of English or another global language as being an asset that children and youth need to learn, yet, on the other, they lament that their children do not speak Zapotec. In other words, many participants stated that they were receiving conflicting messages and felt that in many ways it was better to invest time in English because it is so prevalent, and is, in many cases, a requirement for entry into university programs. In addition, it has become mandatory in primary school now, too.

It would, of course, be false to state that everyone at the workshop stated that they wanted to learn our ancestral language, but what was promising was that more than half of the participants in attendance—close to 70% of the group— were very passionate about wanting to learn, while perhaps 20% of the others said they would be interested. The remaining 10% said if they had to be completely honest, they wouldn't mind learning Zapotec, but would like to learn English or another language before committing to fully learning Zapotec. One participant stated that he knew Zapotec was important and part of his identity, but added, "I am conflicted because I am not sure how it will help me when I go to university to study engineering, if anything I should already know English because I was told that lots of the material will also be in English."

In many ways when we reflected collectively many of us felt that there was more pressure on us now than there has been on past generations to learn English as well as Spanish, which leaves very little room and time to learn Zapotec. Coupled with this was the fact that "our parents are not teaching us or supporting us, which makes it very difficult to learn." One participant cogently claimed that "before we start, we are destined for failure because we are not taught at home or at school or have time to learn it."

Phase 2: Cellphilm making: Exploring Mobile Technology as a Means to Language Revitalization

The preceding phase served to ground and center the cellphilming process around the topic and issue of language loss and learning. All participants in attendance, it should be noted, were there voluntarily and most of them stated that they were first and foremost interested in the workshop not because of the Zapotec aspect, but because they wanted to learn how to make their own documentary videos. When we told the participants that these workshops would introduce them to the cellphilming and the steps involved they were quite excited, until they heard that we would be focusing exclusively on Zapotec language and ancestral community practices. Many were disappointed.

Martin: Why are we just focusing on Zapotec and things from the community. I find this all really boring. Why can't we make videos about things we are actually interested in, such as skateboarding or parkouring?

José: Well … you are always welcome to make a video on those things as well, but we would like you, in this workshop, to focus on community traditions. I mean you could always do, for example, a skateboard video in Zapotec if you like.

Nancy: Why are we going to make videos of things we see every day? I mean how interesting is it make a video about my mom making

	*totopo*s or my grandmother making *bidaani'* for example. I have seen them make these all my life.
Me:	I mean you are very fortunate to have had that experience and yes perhaps you could focus on other traditions in the community, but also don't forget that not everyone in our community, especially the younger generations, knows how these *totopos* and *bidaani'* are made or know the process and work involved in making these traditional items. Also, what you may find boring or take for granted might not be the same for other viewers or persons in our community. And, it is this taking for granted that has also in some part led to the diminution of these Zapotec practices.
Giovanny:	I came here learn to more about making video and refine my skill and not really to learn Zapotec or film things about our culture, but I have to admit after our discussion about the state of our language that I find that this is an exciting way to learn more about my culture and language as well as the added bonus of learning more video skills!

Eventually our group we went on to talk about the use of cellphones for this project. Our question was this: How many of you have a cellphone and what do you use it for?

Almost every participant had a cellphone (or a mobile device like a tablet in the case of two participants), while one participant brought a Digital-Single-Lens-Reflex (DSLR)camera in addition to his cellphone. Only one participant had brought a digital camera but said they would be able to borrow a cellphone for the workshop. In terms of cellphone use and everyday applications the answers were pretty consistent among all participants. The following are ranked in order of priority use.

1. Texting
2. Surfing the web, engaging in social media 1) Facebook, 2) YouTube, 3) Instagram

3. Playing games and taking pictures or making videos

4. Calling

5. Watching TV

Although it was not surprising to hear that participants were taking videos and pictures thus documenting their everyday lives, we were more interested in what they were photographing and filming besides friends, and skateboarding, and taking selfies, or simply having fun. It was interesting to note that many said that they have filmed cultural events in our community, such as the *mediu xiga* (a traditional dance at weddings) or parts of a wedding to send to family living abroad, *la regada de frutas* (a parade after the community celebrates and honors patron saints) among other community practices. In other words, many of these participants were already making cellphilms and uploading them to YouTube or Facebook to share them with friends and family. Several participants said something like: "It's nice because people like or comment on your videos including Elders or other family members and sometimes they tell you more about the practice as well."

Observations on Cell phones and Mobile Devices: Generational Perceptions?

It is curious yet not surprising to note here that all the young participants saw no problem with using cellphones or another mobile device to film Elders or any community practice. Although José understood that we could offend Elders and that filming them and their ancestral practice might not show them the respect they deserve, he also understood the value of cellphones and/or mobile devices in our everyday lives. Clearly, given their availability and low cost he could see their potential in terms of presenting a more sustainable way of making community videos; he was torn. José was perhaps reacting to the banality of the cellphone, but I felt that this very banality meant that participants (and anyone else) could capture more spontaneous moments. Also, as

I noted, how often does one have access to DLSRs in the way one has access to mobile devices? He did concede that was an important consideration, but the turning point for José was when he saw the high definition quality of video that many of these devices can produce. For example, I showed him a short cellphilm I had shot with my iPod touch 5th generation and he was most impressed with it, and with the sound quality, which had always been a problem in our earlier documentaries. In addition to this I told him that videos on these devices are much easier to upload and edit because the footage is compressed in a way that more professional devices cannot manage to do and that these require more experience, time, and software to process. He finally realized the full potential of mobile devices when he made his own cellphilm and experienced how easy the process was in terms of filming, because of not having to think about white balance, lighting, editing, and uploading. I also said that because these devices are more intuitive and user-friendly, youth, like the participants in our workshop, are already experts and have more skills and approaches along with many apps and can therefore be more creative and experimental with their work. Also, because the learning curve is not steep, they do not get frustrated with the process.

However, I should note that José's concern about parents' perceptions of the benefits of using cellphones versus the disadvantages, such as cellphilming being understood to be a waste of time, was a valid concern. In fact, one parent at the orientation said that she did not want this to be a place or a situation where her child is coming to play with their cellphone because if that's the case, they can do that at home, or do something more worthwhile, like homework.

Like José, most parents are not opposed to the device per se, but are, rather (and rightly so), skeptical and or wary of this device as an educational tool. This may be a specific generational perspective or a lack of exposure to the full potential of such devices. One parent said that whenever "I see my son on this device he is playing around, scrolling or staring aimlessly at who knows what." However, her

son responded by saying, "I am doing stuff." She asked, "Like what?" and he replied, "Editing pictures and/or videos," to which she responded with "Hmm." The point of this is that what parents understand as "wasting time" or "playing" is, in fact, young people learning and refining their digital media-making skills and knowledge, whether it is learning how to use a new app or editing a video or improving the quality of a picture. One of the participants showed us how he edits music clips on his phone, for example. In the end I reassured parents by showing them some of the films I have made with my device and explained the process, but also reiterated that they were always welcome to attend and or even participate. None of the parents did, besides attending the orientation and the screening.

Screening Indigenous Produced Media as a Means to Thinking about Our Cellphilms

José and I screened various documentaries every week for several reasons, beginning with the fact this was a great way to continue to ensure that we had *assembleas* or collective reflection sessions to help support and guide one another throughout the process, but also to make sure that the participants were keeping up with their commitment to the workshop. We wanted to familiarize them with some of the work of seminal Indigenous filmmakers as well as get them to see some of the shots, techniques, and narratives used in their work to help participants with their storyboarding and filming process. It was also critical to get participants to think about how video can be used to address social and community issues. For example, after showing these videos we asked them to think about the notion of audience and who it was that the filmmaker was addressing. Then, as an exercise, we asked them the following questions.

1. *What can we do with videos/cellphilms?*

The majority of participants felt that the purpose of videos was to preserve or document

a practice for one's family, community and or future generations, or to relay "a message to your community about a particular issue" or "report an injustice, such as what is happening with wind turbines, or political corruption, for example." A participant talked about addressing "the problem of younger people not speaking our language." One said, "To celebrate our beautiful culture" while another said for "the sake of making art to share with our community."

2. Who is your audience and who do you want to address?

There were several overlapping responses.

- My friends
- Family/relatives abroad
- Community
- Myself
- People outside our community.

Shadowing an Elder, Resistance to Storyboarding, and Motivation

Perhaps the most onerous part of the workshop for most of the participants was the storyboarding process. This exercise was paired with an observation and trust-building exercise. Before they drew or planned their storyboard and commenced filming, we strongly encouraged participants to spend time with an Elder to establish trust and to bond with them, but also to familiarize themselves with all aspects of their practice. We wanted the participants to become aware of the context and other aspects of Elders' practices that may go unnoticed if not watched closely, such as particular rituals and invocations or gestures. We also wanted them to note the duration of particular aspects. The idea behind this exercise was threefold. We wanted them to bond and establish trust, and also show respect to the Elder being shadowed. We wanted the participants to understand all aspects of the cultural practice in which the Elder was engaging so as not

to miss any details of the process. We wanted them to learn, absorb and try to embody as much of the Elders' teachings about personal history, practice, and/or community history. And while all the participants enjoyed shadowing and visiting with an Elder, they wanted to skip or quickly gloss over the entire storyboarding process and get filming. One participant said, "I find this process [storyboarding] boring and I want to just start filming. I have met up with (Elder) several times and watched her closely, so I am not sure why I couldn't just film her on those days. I mean I have made films before and they have turned out really well." We asked this participant, "Who was your audience? Who were you making the film for? Did you follow up with the person you filmed or was it merely just filming for the sake of everyday documentation, such seeing an Elder pass by with a *carreta* (ox cart)?" We went on to explain, "We are trying to capture a practice to both preserve it so future generations can learn from it and also for you to experience it to learn and absorb the Elder's teachings."

José and I noted that while we understood the urgency of wanting to film without planning, we know first-hand that if a film is not properly planned the maker will miss fundamental parts of what needs to be in the film. In this case, this would mean doing the Elder and her or his practice a disservice. When the Elder, or family, or community member familiar with the process views the cellphilm or video they will recognize that important elements are absent from the film, as José and I knew from making our own documentaries in the past. Therefore, if something has been missed the film-maker will have to go back and re-film what was missed, which can inconvenience the Elder, who at times may not have the patience or time to be filmed again.

The idea behind this seemingly tedious storyboarding and shadowing process was to sensitize the participants regarding the proper conduct and protocols when working with Elders. This means not only keeping in mind their time and ability, but also working around their schedule, not yours. Another important consideration is that filming an elder can also directly affect the Elder's livelihood. For example, Na Modesta

lost several days of wages when we had to repeat a take. She could have been be selling more of her *guetabiza* instead of complying with our needs.

Many of the participants at this point were losing motivation and would show up late to the workshop or not show up at all. When asked why, some just simply said that the storyboarding process was "too time-consuming" or it was "boring" and "unnecessarily complicated." This process also resulted in our constantly tracking down participants or what José and I referred to as "parenting." As a consequence, there were many days that were unproductive and spent idly waiting. Also, some participants stopped coming to the workshop altogether. To ameliorate this situation, we discussed this as a group and collectively decided to dedicate an evening to finishing their storyboards, so as to be able to commence the actual filming. However, we did say that while this may seem complicated it is also about connecting with our traditions and learning how to respect our culture and follow our protocols concerning working with Elders, which the participants could respect and understand.

The Creation and Description of Participants' Cellphilms

In the end there were a total of four cellphilms made (not including others made after the workshop by Giovanny, the visiting film-maker), but only two of them were screened because one was lost due to a technological malfunction and the other one could not be finished because the protagonist fell ill with chikungunya. Nevertheless, there were some very interesting observations made about the filming of the two that were not screened, on which I will elaborate shortly.

We all learned an impressive amount of ancestral and language knowledge from engaging in this process. It had an impact on "the way in which we walk through the world," as one participant said. The following are brief synopses of the cellphilms created, including the ones that were not screened.

Figure 6.1. Our group shadowing Leonel Nisa.

Figure 6.2. Participating and filming sand extraction from the riverbeds

This is a 7.5 minute biopic[69] on Leonel (Nisa) Ruiz Ruiz, an elder who has dedicated 40 years of his life to extracting sand from river beds in our community, which, in turn, is used in for the construction of houses and other products in the community. The cellphilm was made by a group of four, which included Soledad, one of the young female participants, 14-years-old; Pedro a 17-year-old and the only fully fluent Zapotec speaker; José and myself. The cellphilm was rooted in the word *Dxi'*ña (work), which the group felt was broad enough to prompt brainstorming various practices and occupations in our community. Some of the occupations included *traje* making, *totopo* making, and working in the *milpa* (corn fields). Eventually José suggested the word *Yuxhi* (sand) and said that he knew an Elder who is one of the last persons in our community who still practices the art of extracting sand, so we collectively agreed that this would be the focus of our cellphilm. The cellphilm, therefore, focuses on a day in the life of Leonel and what is involved in the practice of extracting sand. This meant getting up at 4am, meeting Leonel at 5am at his residence, and eventually riding to the river bed in his ox cart, joining him in the cold river, watching him, and eventually taking turns extracting sand (see **Figures 6.1** and **6.2**), while also listening to oral history of how there used to be several hundred people who practiced this profession as well as of the significance of communal lands, which are also slowly disappearing. The film focused on the entire process of going to the river bed, extracting sand, learning how weather affects the collection of sand, collecting one tonne of sand, and finally delivering an order of sand to a purchaser. The cellphilm was a more traditional documentary that was edited as collectively as possible, working around the participants' schedules and using the storyboard we created from our visits with Leonel. It included a song entitled *Cayuú beñe yoo* by Victor Robles "Huipilito."

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[69] https://www.youtube.com/watch?v=AS_ZMNNeNZQ&t=8s

Xquenda (Soul)

Figure 6.3. Opening title of cellphilm.

Xquenda was a 5 min cellphilm produced by Orquidea Torres, our eldest participant, a 26-year-old mother from the neighboring community of Chicapa de Castro. While the cellphilm workshop was aimed primarily at youth, we did not want to exclude anyone, especially someone who, in this case, was very enthusiastic about creating her own cellphilm. This particular participant chose the word *xquenda* as the root and basis of her project. This word has, of course, several meanings, from "culture" to "virtue," but Orquidea was particularly interested in its use in reference to "soul" and the rich and enduring history of mortuary practices in our communities. More specifically, this participant was interested in understanding and experience in greater depth the enduring pre-Hispanic Zapotec practice[70] and surrounding metaphysical beliefs in the transition from the living being to becoming an ancestor (see Peterson Royce, 2011) or, as she put it, the "journey of the soul from one world to another world." Therefore, the cellphilm chronicles all the rituals involved in interring and honoring a deceased person, from the specific flowers that need to be chosen and the prayers and orations,

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[70] Our people distinguish between ordinary death and sudden violent death. The distinction is also made in the death ritual for married and unmarried persons. According to archeologist Gary Feinman (2011) in pre-Hispanic Zapotec society, ritual contact between the living and the dead was an important vehicle for communicating with the supernatural, so burning incense or letting one's blood (blood letting or offering ones blood) above the spot where one's honored ancestors were buried would be expected.

to preparing the burial site (bringing clothes and things from the living world to be enjoyed and used in the next world, for example), including the specific procession at midnight and specific foods, accoutrements, and other integral elements that hold great significance in Zapotec funerary practices, such as tobacco and chocolate. She felt that making this cellphilm would not only be a precious record for the family, but she also wanted to be immersed in the entire process to fully grasp and understand the practices. Moreover, she chose this practice because, as she rightfully pointed out, it is an important community context or setting in which one would be able to hear and learn culturally and historically significant Zapotec vocabulary. Zapotec is used almost exclusively during the entire process with the exception of some Latin, which is a result of the influence and blending of Catholicism with the Zapotec religion and cosmovision, something she also wanted to better comprehend.

Figure 6.4. Stills from the cellphilm, women leaving the cemetery.

Figure 6.5. The house of the honoring the deceased.

Diidxa yaahui' (The Joke)

In spite of the fact that this cellphilm was not fully realized, in that it was not edited nor screened for anyone outside the group, it is worth mentioning for several reasons. First, this cellphilm was very much a group endeavor, which was carried out by 8 of the 9 participants (including José and me) and the participants were very excited by the idea and the powerful message they wanted to express through this cellphilm. The cellphilm's main protagonist, a friend to several of the participants, was chosen because he is one of the few high-school students who is fully fluent in Zapotec and is often seen speaking to Elders and teachers in Zapotec, which they found very inspiring and *padre* (cool). They wanted to highlight the fact that he is young because of how rare it is these days to hear such a young person in our community "confidently speaking our native language" as stated by one of the participants. In order to emphasize this, the protagonist walks around the central park of the community, which is an evening hub for both youth and Elders alike, asking young people if they want to hear a joke,

but when he begins to tell the joke it is in Zapotec and the youth either don't laugh because they don't understand the joke fully (or at all) and are confused by the fact that he is speaking to them in Zapotec (see **Figures 6.6** and **6.7**). However, he continues to ask people around the park until he finally sees an Elder sitting on a bench and asks him if he wants to hear a joke. Upon hearing it, the Elder and the protagonist begin to laugh because, of course, the Elder understands the joke. The film was meant to highlight the fact that youth in our community do not speak Zapotec and "how sad it was that no one but an Elder could understand the joke and this was only a joke that was told, so what else are we losing and missing out on by not knowing our language?" The cellphilm, according to the participants, in emphasizing the fact that this young man spoke Zapotec, served as "*una autocrítica de nosotros mismos*," a general critique of themselves for not being able to speak Zapotec, as well as a critique of their parents and others in our community "who rebuke us for not speaking Zapotec and/or lament the fact that as young people we are not speaking it yet how will we ever learn to speak it if no one takes the time to teach us?" One participant said that they "chose the theme of a joke because in a way it is a joke that we as Zapotec don't speak our own language in spite of the fact that our Elders took such care of the language, yet that effort is not being put forth to us." And in the interaction between the Elder and the young man the participants wanted to express the fact that we tend to take our Elders for granted and we think of them only once they have passed on instead of taking the time to learn from them and simply talk to them while they are alive.

Figure 6.6. Stills from the joke cellphilm.

Figure 6.7. Stills from the joke cellphilm.

Including this video was based on the fact that when we reflected on the filming process, all the participants who were present then were impressed by the attention evident among other young people in the community. As mentioned earlier, the park is the central hub for young people and these viewers were interested in what was going on in the film. They asked many questions: What is this for? Why is this being done? How can I be involved? The participants, in turn, said they felt validated and inspired after receiving such affirmative feedback from their peers, not to mention getting many new cellphilm ideas, such as making a Zapotec skateboard video, or filming fishermen, for example. The workshop group was very inspired, and this translated into wanting to continue to do more to inspire and reach out to their peers. As one participant said, "It was cool to have your peers watch you doing something for your community, but it's even cooler when they are supportive of it." Many young people were impressed that the participants had made a movie with their cellphones and mobile devices. One said, "Wow I never knew you could make an actual documentary with cellphones, I thought it was just for whatever types of videos you share with your friends." Another young person responded to him and said, "Oh yeah, you can do a lot of stuff with cellphones. For example, I edit skate (board) videos on my phone." I thought that was a very productive interaction, engendered by their watching a cellphilm between two young people who presumably did not know each other This conversation was not lost on José and other participants, one of who said that this sort of interaction is "contagious, which is why we need to do more events like this!" At the end of the cellphilm screening many said that they wanted to be part of the *Binni Cubi*, so they can continue to do such work in our community. Some even said that we should have shirts made that we could wear to increase the visibility of members of the collective, so others can ask us questions and even get inspired to join us.

Figure 6.8. The 7th of November market in Union Hidalgo. Photographer: Diana Manzo.

This cellphilm[71] was never fully realized for two reasons: because of a technological malfunction all the footage filmed at the market was lost; and when we were going to re-film it both participants became ill with chikungunya, which prevented them from completing it. Their idea was to walk through the community market because it is a place were "a lot of Zapotec is spoken," as one of the young women said (see **Figure 6.8**). The idea of the cellphilm was to document the everyday hustle and bustle of the market. They planned to go to different stalls to ask women about their everyday sales process and ask these women to teach them the Zapotec name for some of the produce and wares they sell. One of the young participants felt somewhat uncomfortable with asking women to tell her anything in Zapotec because she felt that then the women

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[71]   Picture by Diana Manzo. http://jornadabc.mx/tijuana/08-11-2015/tradicional-mercado-oaxaqueno-celebra-su-48-aniversario

might speak about her in Zapotec, to which her friend replied, "I'll ask them, and you can film." Although the cellphilm was not completed both participants said that being part of the process may have been more important that the video itself.

Screening the Cellphilms

We did a private screening for Leonel Ruiz Ruiz—the Sandman—and his family, when we presented him with copies of the video showing his work. We asked if we could upload the video online so other people in the community could view it and he agreed. Leonel and his family were very pleased with the video. His wife was amazed to see what her husband does every day, and said, "In the forty years we have been married I have never actually seen what he does." She added, "If I as his wife have not seen what he does I can only imagine many others have not either." She agreed that it was important to post the video online for others in the community to see traditional work that is dying out. The video has now garnered close to a thousand views, which suggests that Leonel's wife's comments are germane: people are interested in viewing these traditional practices. The participants screened this video for their friends and family and noted that they received much support and praise. The one criticism they received was that there should have been more dialogue in Zapotec, particularly if the point was to use this experience to begin learning the language. The second cellphilm was not uploaded to YouTube given its personal nature and Zapotec religious content, out of respect for the family and the community and also to safeguard this sacred community knowledge. The participant did screen the cellphilm for the family and friends who said they enjoyed it. Many commented that viewing these everyday practices in this video format enabled the video maker to capture more elements of ritual and process that we sometimes either take for granted or do not really observe. The participant who made this cellphilm did say that while the family was happy with the product she felt that the video could have been improved in terms of sound and

editing. After I had helped her with this, she still felt that it felt incomplete. I explained that a cellphone or mobile device is not built to block out the sound of the wind during filming. I did not understand what she meant by saying that it was incomplete since we had used all the taped footage. The video-maker then said that through the workshop she had been able to be immersed in this cultural context and therefore now considered the video a major success.

Beyond screening the cellphilms, this event provided an important platform for me, José, and the participants and their guests (family and Elders) to reflect on the process and the workshop. For example, we reflected on the question: For whom did we make these cellphilms? Many of the participants said that it was for their friends, family, community, and future generations, but many also said that they had done so in large part for themselves, as a way of showing family and friends that in fact they are eager to learn more about their culture. Some also mentioned the idea of this endeavor having reinforced their personal relationship to their culture and cultural identity because they actually engaged in these practices that surround us and are, in many ways, part of who we are. They said that we often take these for granted or do not really take the time to understand them. As for the cellphilms themselves, everyone in attendance expressed that they really enjoyed seeing them and lauded all the participants for their dedication to learning and perpetuating our Zapotec culture.

Many audience members were amazed at seeing these practices for the first time. One asked, "What was is like to be in the water extracting sand?" for example and Soledad's mother said, "Wow! I did not expect my daughter to be actually engaging with the process let alone be driving an ox-cart through the water. I find this a very unique way to teach them our culture that goes beyond just viewing it from afar and getting them immersed in the actual process." This prompted one of the participants to state that she wished that they would "teach us this in school." She was referring to school's having an immersive experiential approach as well as to the Zapotec cultural

practices. There was a short but significant discussion in which youth expressed their desire and commitment to learn but felt that they were not supported enough. One Elder and a parent agreed fully with this. José and I asked the participants and the attendees to continue to reflect and ask themselves what we as a community could do to support these practices. One of us asked, "Do you think projects such as this one make a difference? How can we as a community or as individuals nurture our language and change our relationship to it? How, as individuals, can we make small everyday changes that could make a long-term impact on our relationship to our culture? What can we do differently to change this pattern of community indifference, or is it a case of generational misunderstandings? There was, of course, much to reflect on and, as I have experienced from past events, reflection takes time to be fully comprehended. José observed that these events, such as this screening, are an important first step because we are planting that seed of reflection and contemplation, which we hope will continue to grow and eventually be harvested.

Phase 3: Reflecting on What We Learned about Zapotec

Participants reflected both collectively and individually on whether or not we had learned Zapotec. It is impossible to come out of a two-month workshop as a fully fluent speaker of any language, let alone Zapotec, which is an extremely difficult language to learn and to speak because of its varying tones and complicated grammatical system. However, this is not to say that participants did not learn new vocabulary and phrases in Zapotec, including those who were somewhat fluent.

Pedro: Despite the fact that I speak our language more or less fluently I did not know what to expect in the sense of whether I would actually learn a new word, but since I was filming and engaging in a practice that I had no knowledge of (extracting sand) I did in fact learn new words and phrases during the filming process. … when I

wasn't sure what something was I could simply ask the elder what the word or phrase was, which is where I learned new things.

Giovanny: I had always heard the word *guendabianni* which I always thought had something to do with death, but by being able to spend time with various Elders and people who are fluent in our language I in fact learn[ed] that the word means life or intelligence and not death. This is only one example of many instances when a word or phrase which I thought I knew or had a vague idea of its meaning was explained to me, so it was in these instances that I either learned more about a word I knew or learned a completely new word.

Soledad: I can say that I did learn many new words, which was wonderful, but what was perhaps the most exciting [was] to learn and hear or rather experience words being used in a cultural context to see how they are related to our cultural practices and community life and to be part of that process of learning and absorbing new knowledge.

Edward: I can't say I learned any new words in Zapotec that I didn't know already, but I can say it did open a door to seeing my culture in a different way and not take it for granted, but also by hearing our language spoken outside my home while filming a community tradition made me proud to be Zapotec.

When asked about using cellphilming as a method to learn and teach Zapotec, the participants unanimously said that they felt more comfortable learning Zapotec via cellphilming.

Many participants felt that through this method both they and the Elders were more at ease, compared to more conventional modes of learning such as sitting in a classroom and learning from teacher-driven lessons and books.

Orquidea: Viewing and recording the practice behind the screen of my cellphone allowed me to focus on both what was being said in Zapotec and the practice being filmed.

Another participant reported that she liked the fact that she] could view what she filmed and upon reviewing it could "catch new things" that she had not noticed during filming. The same participant was excited to report that sharing her cellphilm with family could prompt further and more in-depth discussion or evoke personal histories about the practice seen on the cellphilm among parents and Elders in the house.

All the participants stated unequivocally that this activity exposed them to an ancestral practice that they would otherwise not have engaged with, therefore learning more about it, and that they learned new phrases or terminology related to that practice.

Soledad: I didn't know what to expect when I was told that I would be making short videos about our culture with cellphones. What I can say after this experience was that it created an opportunity to learn something about our culture, in my case all aspects about funerary practices, that I would otherwise not have ever bothered learning or engaging in. This workshop also exposed me to new and more people in my community giving me a greater sense of community as well as seeing [that] these Elders are knowledge holders and teachers with valuable resources for the community and life in general.

Giovanny: This exercise taught me the power of working collectively and by doing so we can have greater success in realizing goals for ourselves and community.

Orquidea: Honestly I would have never actively chosen to learn or seek out any of these activities by myself nor would I have taken the time to get to know other Elders beyond the ones in my immediate family,

but by doing so I learned about our language, [and the] history of our community and community traditions.

Another participant stated that working with one particular Elder in this context allowed him to feel at ease and comfortable enough to ask what different words meant; he was comfortable speaking the little Zapotec he knew without fear of being teased.

Martin: Many people in the community, upon hearing that someone wants to learn Zapotec, they say "there are lots of books out there, you should pick one up," but it is like seeing a map and not being able to read it because no one has ever taught you how to read it, so how can I read a book and be expected to learn? This approach, by pairing me or us with an elder, has given me the tools to begin to able to read and navigate that map that is our language and traditions.

Another participant also said that it was exciting to see that there was an opportunity to learn Zapotec in the community because quite often (as I have experienced myself) when anyone wants to learn Zapotec many people in Union usually refer them to Juchitan instead of referring them to someone in the community. This over reliance on Juchitan is also in part due to the fact that our community cultural center, unlike the one in Juchitan, rarely if ever offers any language classes. In other words, there need to be more language focused initiatives in our community, as many of the participants expressed several times.

Some participants found that they wanted to learn more about editing, while others did not care for the focus on Zapotec traditions and felt limited or restricted in their cellphilm projects. Not fully answered was the question of how cellphone videos and social media practices fit into modes of transmitting knowledge and culture. However, one Elder did comment on this with reference to using cellphone technology, saying that "traditions are always evolving and need to evolve to be relevant to each generation; perhaps the format of how knowledge is passed down may change but the

core message or knowledge remains the same." Many of the participants noted that the use of technology made learning Zapotec "more interesting" and "fun" while others said that having knowledge of this technology did make them feel more confident when interacting with Elders because they said they felt they had something to bring to the table and so contribute to this learning process and conversation with an Elder.

Orquidea: It's funny to think that it did not occur to me that a device I use every single day can be used as a powerful tool to help freeze or preserve our traditions for future generations. I think it's a great way to use this device!

Giovanny: At the beginning, when we got the idea of a film workshop, I thought there would be an infinity of professional production equipment, but being in the workshop they mentioned cell phones as our work team and that, despite being a new experience, recording with it was very feasible since currently most people have a cell phone that in turn is already integrated into a camera, that allows anyone to film any situation and with every passing year the cell phones have better quality in its cameras and with this everyone is slowly becoming more and more of an expert in making videos, which allows anyone in our community to continue to create audiovisual content with the cell phone.

Martin: Using a cellphone is a great idea because anyone can make a film and edit it and upload it and share with friends and family all on one device. And anything that you don't know about editing for example you can learn online, which is what I did and also what apps are available out there, so I really liked that this workshop expanded our understanding of what can be done with mobile devices.

Many participants expressed the fact that their parents were surprised to hear that they were learning Zapotec alongside Elders while also learning about traditional practices, which for many parents challenged the notion that their children were indifferent to learning about such things. Although the participants never used the word *decolonization*, when José did explain what it means the participants said that their cellphilms, and the process of making them, functioned as a catalyst for them to reconnect with Elders and Zapotec ways of life in a more engaged manner. The process also forced them to examine the various issues in their own lives that have prevented them from living a more authentic Zapotec way of being and how they can change their relationship to their culture if they chose not to listen to parents or others who encourage them to turn their backs on their culture. As José said to the group, parents can and do make mistakes, whether it is out of love or out of *costumbre* (habit) that is misguided, and that is perhaps because they were also misguided or not told anything else, so they repeated the same misinformation to their children. Therefore, many felt that this project had provided them with a platform to address their parents or Elders in their own families about their desire to learn and be taught more about their ancestral language, stories, and traditions.

> Edward: Workshops like this are vital because they call attention to the Zapotec culture in such a way that youth can rediscover and be part of their own culture.

Gender and Language: Personal Observations and Reflections

Gender and how it affects and influences language and culture is a complex and nuanced topic, which can be a dissertation topic in itself, and is beyond the scope of this project. There was a disproportionate number of girls and young women compared to boys and young men who participated in the workshop. This, of course, engendered several questions. Are young women and girls more civic minded? Are women and

girls in our community more concerned about perpetuating Zapotec? These were two of my initial questions when I first realized that more than 90% of the participants in the cellphilm workshop were girls and young women. Several of the boys and young men asked if the workshop was directed at women while others thought they had shown up at the wrong workshop. Most of the female participants stated that they had attended the workshop first and foremost to learn more about creating their own videos. The cultural component of the workshop was of secondary interest. Beyond reflecting on the disproportionate number of female participants, I also asked myself, if there not been the chikungunya outbreak would many of the participants have stayed till the end? I know from experience of hosting workshops or cultural projects that one will not retain all participants in long-term projects such as this one, particularly among adolescents, irrespective of gender. In this case, I also questioned whether many of these female participants did not show up again because there were two men hosting the workshop, José, and I. Would the outcome have been different had there been a female facilitator? Also, what could we learn from this experience? How can we create a space in which young women can feel more secure and comfortable while learning their traditional language? What could have been done differently? Could we have a mandate ensuring that all future workshops must be led by both a female and a male facilitator? Or perhaps we should have gender-specific workshops? But what would be the implications of that? Would that further amplify gender inequality, or not? Are language revitalization projects and approaches that fail to take gender into account indirectly affecting the actual learning and revitalization outcomes? Could we learn more about how language loss affects and is experienced by women and men differently? Would this enhance future approaches?

Zapotec, like all Indigenous languages, is connected to Indigenous culture and culture is also tied to gender roles and identity. Colonialism is built and enacted through a series of binary oppositions, such as civilized/savage, rational/spiritual,

and of course male/female. Cherokee scholar Smith (2011) explains how colonialism legitimized gender violence and oppression through the installation of patriarchy, a male system of domination over females. Smith[72] states in a YouTube video that:

> of course, patriarchy is built on a gender binary system. You can't have patriarchy unless you have two genders, one that dominates another gender. So consequently, in many Native communities that were not built on a gender binary system, those who did not fit that system were often targeted for destruction as well. (2011, n.p.)

For Indigenous peoples, the loss of language translates to a loss of connection to their culture and ways of being, including gender roles. I mention this because the effects of both patriarchy and colonialism continue to have lasting effects up to the present day and have affected language usage and perception of language in our community. When participants were asked who could speak Zapotec only two participants raised their hands, which is not surprising considering the young demographic makeup of the workshop as well as the fact that it was a small group. However, both were boys. I had begun to see an emerging pattern while I was visiting schools to promote the workshop and later to conduct a language survey in all the schools, the preliminary results of which showed that approximately 70% of boys and young men stated they spoke Zapotec fluently, or semi fluently, or understood it, but did not speak it, as opposed to 30% of girls and young women. This made me speculate on why there was such a discrepancy between boys and young men on the one hand, and girls and young women, on the other, speaking Zapotec?

Of the two youngest female participants, the 13-year-old said she understood a great deal of Zapotec and the other young woman, a 14-year-old, said she neither spoke or understood any Zapotec. During the filming process in the market the girl who did

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[72]   https://www.youtube.com/watch?v=6LxXjUtbtf0

not understand Zapotec, noted that she felt uncomfortable hearing Zapotec being spoken because she felt that they were speaking about her behind her back. The other replied that this is a normal feeling for anyone who does not understand a language. She followed this up by saying she in general did not have any interest in speaking Zapotec but, curiously enough, said she was very interested in the cultural aspects, such as making *tamales* or selling in the market. When I asked her why she didn't like Zapotec, she first said, "Because it's too hard", but I said that so is English, which she had mentioned she wanted to learn, so why not Zapotec? To which she responded, "Well I guess English is going to help me in the future and Zapotec, well, really isn't going to do anything for me." Her friend concurred with that statement. She also mentioned that she does not like how people stare at her mother when she speaks Zapotec outside of the region, which is a very common response in our community. After this interaction I could not help but ask myself why younger women are rejecting their traditional language?

Could it be that in an overtly machista society and context like our community and Mexico these young women know they are marginalized on various fronts, first for being a woman in a male-dominated society, and second as an Indigenous person and woman in a racist society that actively discriminates against Indigenous peoples, both of which not only affect their choices, economic welfare, and, more critically, their overall well-being and safety? So, adding language, an Indigenous language no less, which is another marker of identity and, in this context, another cause for stigma and oppression, can only further the marginalization. I asked myself whether these young Zapotec women were actively not wanting to learn their language because by learning it they would add yet another layer and reason to be marginalized, and another means of only further jeopardizing their chances as Indigenous women of securing a viable future in an already overtly patriarchal society. Indigenous languages are seen to be backward, something that needs to be transcended in the light of a global language like English or Spanish. Coupled this with is the fact of the ever increasing and palpable disparity

in women's political representation and participation, the gender pay gap, and high rates of domestic violence and femicide in Mexico. Also, as mentioned earlier, there are very clearly defined gender roles in our community. Women's so-called traditional roles typically consist of being a mother, working in the home and in the kitchen, and working at the market, which are all spaces that have always been centers of Zapotec language, so perhaps by speaking Zapotec these young women feel they may not be able to go beyond that world or space. Therefore, I could not help but wonder and ask myself whether these young female participants associated the Zapotec language with domesticity. Was speaking a global language or engaging with technology a means of transcending these traditional roles and spaces?

> According to the literature, the role of women can basically be viewed from two different perspectives. One view is that women hold a 'traditional' role as the 'keepers' or transmitters of their languages and cultures. The other view is that women are at the forefront of linguistic change…Because women are often at the forefront of linguistic change, they affect the processes of language loss, language maintenance, and revitalization (Norris, 2008, p. 319).

One could of course argue that boys and young men in our community are also on the margins as Indigenous persons, which is true, and it could also be a reason for them not to speak their traditional language, so why is there a disproportionate number of male youths speaking Zapotec? Could it be for the same reason that Zapotec is seen within the ambit of patriarchal values, values which in many ways favor men over women, so by speaking our language are they consciously or unconsciously trying to secure their gender supremacy in the community?

What I did learn upon reflection is that it is erroneous and even naive to assume that language revitalization is experienced by, and would benefit, men and women in the same way, which only makes the process of language revitalization all the more conflicted and complex at the same time.

Taking Future Action! Giovanny, Edward, and Orquidea

All the participants in one way or another engaged with and reported learning our language and finding ways to live more authentic Zapotec lives, so it is difficult to single one just one or two participants. In this section I offer an up-close presentation of three of the participants, Giovanny and Edward, who after the workshop went on to continue to explore and create more cellphilms and videos, while Orquidea went to on to found her own arts-based collective in her own community. What they all share in common is their love and dedication to preserving and promoting the Zapotec language and culture in all its facets.

GR-records Producciones: Giovanny De Jesus Rodriguez Cazorla

Giovanny De Jesus Rodriguez Cazorla was a 17-year-old participant at the time from the neighboring Zapotec community of Chicapa de Castro, and more than any other participant, connected with this approach, and, more importantly, reconnected with his Zapotec culture and language. Giovanny was a very quiet and shy participant, who, although he did not ask many questions, attended every single workshop session and diligently took notes at every *assemblea* and session. Also, he was the only participant who wanted to work alone, although he did engage with others in the group. And, although he fell ill with Chikungunya like so many others, which prevented him from completing his cellphilm and screening it to the group, he said that as soon as he recovered he would make a cellphilm. It should be noted that there were two other participants who said they would eventually make their own cellphilms, but for reasons unknown to us they did not follow through, which made José and me somewhat skeptical that Giovanny would do so. To our surprise, Giovanny not only impressed José and me, but also our group, community, and international audiences! Giovanny, upon returning home the second time, uploaded his first cellphilm entitled *Xhahuela* (my grandmother), a sixty-second cellphilm that depicts a young Zapotec girl caring

for her grandmother, while in the background a Zapotec poem about grandmothers is recited (see **Figure 6.9**). The film was uploaded to YouTube and then shared on our workshop Facebook page, and it received a great deal of praise and feedback, such as "How cool Giovanny! I am surprised to see you still making a film after the workshop" and "Amazing work!" and amassed over 200 views, which he found very inspiring and posted, "More to come!" Giovanny went on to produce 15 cellphilms/films and counting, on many Zapotec ancestral practices, many of which had been discussed as possible cellphilm topics in our *assembleas* by all of us, but were not made. Inspired by our group talks, Giovanny decided that he would produce them himself. He did tell us that he contacted other participants who had brought up or mentioned those key words to ask them if they would allow him to explore and make a cellphilm based on their proposed Zapotec word, such as *Libaana*, an ancient Zapotec liturgy for example. He did so because he wanted to continue to nurture the established respect we had within our group and also to make sure that these participants were not planning to make their own cellphilms. Giovanny did ask the participants whose key words he found interesting if they would be willing to collaborate with him, but some were either not interested or were busy. However, all the participants willingly allowed him to create a cellphilm on their proposed Zapotec word and idea. They were all very supportive and delighted to hear that someone was taking the initiative to make cellphilms on these topics. Giovanny created a YouTube channel in order to share all his future works with the group and any of the participants who had given him their key words, but also as a way to get their feedback as well as feedback from other members of the group and his community. Some of the cellphilms he produced focused on such Zapotec ancestral practices such as his grandmother making traditional vestments, funeral, and liturgy practices (*Libaana*), and *mediu xiga* (traditional wedding dance). He made a biopic on a famous local musician and all the cellphilms were in the Zapotec language. He eventually began to collaborate with members of the neighboring *Ikoots* (Huave).

Giovanny's 15 videos have cumulatively amassed over 50, 000 views on YouTube. About this, Giovanny said, "People are responding to my work very positively and enthusiastically, leaving me encouraging comments and or suggesting new projects or wanting me to film their Elders, so I think that our people are happy to see our culture being celebrated in new ways." Furthermore, he was excited to recount that he has had inspirational feedback and has received comments from his peers and other young people. Young people from his community have even asked him to show how them how to make their own cellphone videos and to explain some of the basics, which he gladly did because he said it is important for our young people to learn more about our customs so they can find ways to perpetuate them in the future. It was, he said, inspiring to see that these youth began making their own cellphone videos and motivating other youth to make their own as well.

Figure 6.9. A still from Giovanny's first cellphilm.

Giovanny, on numerous occasions, credits the cellphilm workshop for opening his eyes to something that was always in front of him, and also for the opportunities it has created for him, which, as he has said, "are numerous." Giovanny said that when he heard about the workshop he was under the impression that he would have access to professional equipment and when he found out that we would be using cellphones he was at first a bit dubious, but when he saw what could be done we was elated to have this incredible tool at his disposal. He said, "It's funny this incredible tool was hiding in plain sight the whole time." Giovanny said that he always believed that to be able to make a video you needed professional equipment, or at least a proper camera. It never occurred to him that he could use a cellphone to make a video, let alone that a video made with a cellphone camera could be so well received by his community and others. Just as critically, Giovanny said that this workshop allowed him to explore and learn about aspects of his culture that he has always wanted to learn about, as well as about other cultures in our region. It also taught him not to take his own family practices for granted. In addition to this he said he was very aware of language loss and the fact that many of these ancestral traditions that his Elders had been carrying out for decades were slowly fading away in front of his eyes, but he did not know how and what to do about it. The cellphilm workshop, he said, gave him a "concrete route and direction" in terms of how to go about addressing this serious loss that he was experiencing. He wanted to do more than just preserve it through video or photos, he said, he wanted to learn it, so this approach allowed him to combine both, which was the central tenet of this methodology. Giovanny also mentioned that producing these cellphilms has allowed him to experience wonderful and unexpected opportunities, from presenting at international film festivals including the International Cellphilm festival at McGill, where he won second prize, to travelling all over Mexico. He won first place at a film festival which allowed him to upgrade from a cellphone to more professional equipment, and also to get further training, which he hopes to share with

youth in his community (see **Figure 6.10**). In addition to this, Giovanny has been invited to be on panels and to be a guest speaker at film festivals and universities, and this has allowed him to speak about the significance of his work to him and to his community. It has also given him the chance to raise awareness about issues such as language loss and promote more Indigenous-focused programs to support youth. José and I went to deliver a diploma to him for completing the cellphilm workshop and his McGill cellphilm festival prize, but he had already left for Puebla for film school. Although his parents and grandparents were proud of him for going to school so far from home they said to José and myself that they were a bit apprehensive about the move and his choice to study film at first until they saw the accolades he had received for his work.

Figure 6.10. Giovanny featured in an article discussing his accomplishments with video.

His grandparents invited us in and thanked us both for everything we had done. We insisted that the credit was really due to them for preserving our Zapotec traditions and to Giovanny for his determination to learn about and perpetuate our culture. His

grandparents were very modest about our praise and said they "are just humble and doing what our parents and parents before them have always done." They said that they wish there were more of these types of project and/or activities for youth in our communities because they saw the impact it had on their grandson. They felt that local authorities and educators are not providing enough options for youth to participate in something constructive and positive, so many turn to consuming alcohol as a form of entertainment. They stated that they hoped there were more projects such as this one planned for the future and that they would recommend such a project to other friends and family.Giovanny also mentioned that he would not only like to participate again but would love to co-facilitate a future workshop for youth in his community because he, like his grandparents, felt that youth need to have more positive activities that do not require them to go to Juchitan or Tehuantepec.

Edward Perez: EP Entertainment

Edward a 17 year old participant involved in creating the *Diidxa yaahui'* (The Joke) cellphilm and also one of the few semi-fluent Zapotec speakers in the workshop. Edward said, at the beginning of the workshop, that he was there to learn more videography skills to add to his already existing video- making repertoire. He had already made several videos, such as music videos and even a feature length movie (approximately 1 hour 30 minutes) about vampire youth in their community, inspired by the *Twilight* movies. Edward said he was keen on learning videography, was not necessarily opposed to focusing on Zapotec traditions, and was also not as enthusiastic about making cellphilms on ancestral practices either. In other words, he was somewhat lukewarm about the main premise. However, as time went on, he became more engaged, especially after participating in our juntas or *assembleas* where we would discuss various issues such as language loss, lack of engagement with Elders, fiestas and alcoholism, that affect our Zapotec communities including his own community of Chicapa de Castro. He began to

reassess his relationship to his culture and community. Or, as he put it, "*me cayo el veinte*" (the twenty fell) which is a Mexican expression that conveys finally understanding an issue, in this case those affecting our Zapotec communities and, as he said, "preventing us from living our traditions as Zapotec people." He added, "We as young people need find ways to change this." It should be noted that Edward was one of the primary contributors of the more in-depth meanings of *The Joke* cellphilm. For example, he saw the video as *autocritica* and "a mirror to view oneself, but to help others see their reflection too." And while he felt that he did not gain any more video-making skills from the workshop, he did feel that he made a significant reconnection to his Zapotec culture and had become more aware of Elders, language, and cultural practices that he would normally take for granted. When the workshop ended he also vowed to make more cellphilms. As a facilitator and community activist, my hope is always that the project will continue after the initial workshop, but quite often, as experience has taught me, it does not. If it does, it is usually very short-lived. I have never experienced what I will call a delayed response to future actions until, almost a year and half after the workshop had ended, Edward wrote and apologized for the long silence and that said that he was working on a very ambitious new film project that had been in the works for the last while and that he had not forgotten or given up on making more films. Rather, he was working on a feature length video entitled *Sangre de mis Venas* (The blood in my veins) and for the last year and half he had been working on a script and recruiting actors and working on the storyboard and scouting out possible film locations.
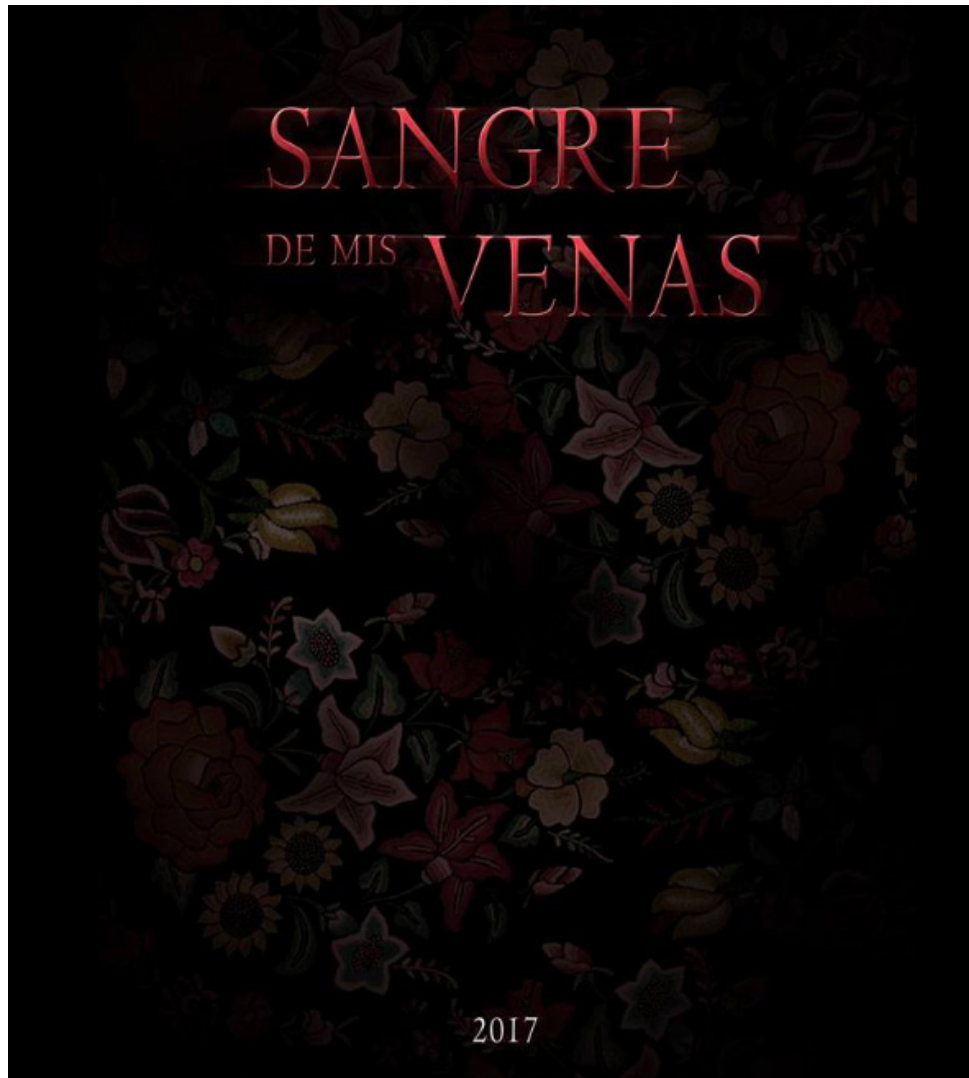
Figure 6.11. Edward's promotional poster for his feature film in Zapotec.

He sent me part of his script and some of his ideas for the film. The film is ambitious because it is going to be done entirely in Zapotec, which means that those involved will have to learn and work on their Zapotec. This is, in part, his motivation, and he wants to see a film made entirely in our language. The movie is set in his community and follows a young man who cannot wait to go to college and is set to leave his community. When he gets to the big city, he begins to realize that he does not really fit in. Although he always thought of himself as Mexican and does not even speak his Indigenous language, in fact he is more Zapotec than he realizes from the way he dresses, what he eats, and

how he feels a real sense of hurt when hearing, and being a target of, racial slurs against Indigenous people. The young man has an existential realization that no matter how far you go from your community you are always part of it and it is always a part of you because it runs in your veins. Edward credits this project directly to the workshop and the many discussions, and topics and personal stories addressed, such as language loss, discrimination, community, leaving one's community, Indigenous-Mexican identity, and what that means, to name a few topics. Edward also credits being inspired by all the videos created by Giovanny and did in fact ask Giovanny for feedback on his project. It was inspiring to see some of the ripples created by this humble workshop and to hear that it continues to inspire those like Edward, and that youth like Edward and Giovanny who were mere acquaintances could come together to learn and share their media-making and digital knowledge expertise as well as cultural knowledge with one another.

Orquidea Torres: Colectivo Cusibaani

Orquidea Torres was the oldest participant of the workshop, 26 years old, also the creator of the *Xquenda* cellphilm that examined the various elements involved in Zapotec funerary rites. Orquidea stated that for years she wanted to learn not only her language but more about cultural practices that she had only heard about from her grandmother. However, she did not really know how to become involved, so when she heard about the cellphim project she felt that it was a perfect entry point to re-engaging with her Zapotec lifeways. It is also why she asked us on numerous occasions if she could be part of the workshop, despite the age limit, and said she would be more than happy to pay to be able to participate in the project. For Orquidea, as she told me, it was about more than being able to create her own film, which was an added bonus, in that it was about reconnecting with her ancestral practices in a more engaged and serious way. After she made her cellphilm Orquidea was moved by what she had learned as well as by as the experience of working in the service of the community, thus embracing the

principles of *guendalisa* and *comunalidad*. Orquidea stated that she wanted to continue to work in the service of the community and she eventually became a member of the *Binni Cubi* and participated in several subsequent projects after the workshop, such as making urban murals and taking part in radio shows and book presentations. Orquidea was the only participant to become a full-time member of the *Binni Cubi* collective after the cellphilm project. Although she has not made another cellphilm, she would love to do so in the future and has said, on numerous occasions, that it is a great way of engaging young and old people on the subjects of culture, community, and language. What was inspiring to hear is that Orquidea went on to create her own collective in her own community of Chicapa de Castro, called *Colectivo Cusibaani.*

Figure 6.12. Colectivo Cusibaani's logo.

Moreover, *Colectivo Cusibaani* is grounded in Zapotec epistemologies and considers this work as a form of *tequio*, which, as explained earlier, involves doing work for the welfare of the community for no monetary compensation, and for the future of Zapotec

culture, and is one of the principle elements of *comunalidad*. Orquidea explained that the *Colectivo Cusibaani* works with youth and parents from her community using art, physical activity, and ancestral practices to promote physical, mental, and cultural well-being in the community through various workshops. It is initiatives like this that give me hope for our language, culture, and our youth.

Shortcomings and Limitations

In this section I look at some of the shortcomings and unforeseen circumstances and how they affected the outcome and progress of this project. In some cases what appeared to be a limitation became, upon further reflection, an impetus to creating a new direction in the project or a personal exploration. For example, the guest speaker, Gustavo Mora, who was invited by José did help inspire youth in terms of what can be done in the audiovisual field, but he offered what some felt to be harsh criticism and appeared to lack understanding as an outsider. He also motivated some participants to create truly unique works that spoke to them and not to Gustavo, which was one of the unexpected outcomes that came out of an otherwise mild reception.

Guest Speaker: Gustavo Mora: Participants' Reactions and Observations

Gustavo Mora is an Argentinian filmmaker who has been living in Oaxaca for the last decade and who has hosted a number of documentary workshops in the Isthmus, one of which José attended. They became friends. José felt that promoting the workshop solely as a cellphilm workshop might not attract enough people, or that parents might not be inclined to allow their children to participate in the workshop itself. José also wanted the participants to be exposed to different perspectives and understandings of the world. He has always said that he wants to create spaces where youth can thrive and be reassured about their aspirations, because in a community that has no real entertainment aimed at youth, many turn to alcohol and drugs. José is always striving

to create events and invite speakers, artists, filmmakers, and intellectuals to motivate and inspire youth in our community to help them stay away from harmful temptations or situations. José felt it was important to invite Gustavo so that our participants could feel inspired, hopeful, and reassured about the possibility of pursuing a career in this field by meeting an actual filmmaker while also not turning their backs on their culture. Another reason that José invited Gustavo was to make sure that the youth also understood the basics of filmmaking in order to make a "high quality product" as José put it. Quality has always been something that our collective strives for. José and other members of the collective have always felt that it is not only a way to show respect to the Elders in the community and to our ancestral practices, it is also to show the community that we are not just some kids playing around. We need to show people outside our community what a group of Indigenous youth from a small community can achieve when they are motivated. José felt that people outside our community at times have the misconception that Indigenous people cannot achieve or produce things as well as *mestizos* or non-Indigenous people who, as he said, "Simply expect less of us, which is why I always want to show them what are capable of achieving." This is also why José and I screened several Indigenous-filmed and Indigenous-produced documentaries and movies. We need to counteract the negative type of discourse that has become internalized by our youth and many others in our community. The idea is that no matter what you pursue, your culture is always there with you and so is your community, and that being Zapotec does not mean that you cannot be a scientist or a filmmaker. These things are not mutually exclusive and, if anything, being Zapotec will in many ways give you a distinct perspective.

Gustavo introduced the group to the foundational principles of creating a documentary film, such as lighting, angles, different types of film formats, b-roll, and the basic questions that need to be covered when one is writing a screenplay. He also shared with the participants various documentaries and films he has created and/or

worked on. In addition to this, he brought a lot of professional film equipment, such as professional cameras, lav and boom mics, and lighting, all which he allowed the participants to examine as well as try out, which generated a great deal of excitement among them. Gustavo answered many questions and gave our group many tips to keep in mind when they were making their own cellphilms, such as the importance of sound in a video and tips on recording with a cellphone; for example, if conducting an interview, you can put the cellphone under the interviewee's shirt or place it in their lap. Gustavo also helped our group at the early stages of our storyboarding process and reminded our group to keep in mind such considerations as "thinking visually" and "drawing/sketching out your ideas visually (and not worrying about artistic skills)" because, as he reminded all of us, it is great to have ideas, but these ideas need to be translated into something you can film.

Despite Gustavo's excellent introduction to documentary film, as well as his generating a lot of excitement among participants when it came to sharing ideas for their cellphilms (or what he referred to as an elevator pitch, which was to share potential ideas based on their prompt word and/or group discussion), he became very critical. As he listened to many of the participants' preliminary ideas from their group brainstorming sessions, he seemed a bit too critical and not supportive enough of their ideas. For example, one of the group of participants stated they wanted to create a series of commercials promoting language usage and the current attrition rates as part of a Zapotec language loss campaign in the isthmus, which we asked them to describe and, while some of the criticism/feedback from Gustavo was meant to push them further to think of potential shots to help the with their storyboarding and planning the filming process, such as "Who will be the protagonists?" and "Where will this take place?" all this came across differently. The participants felt that what they said did not sound too interesting to Gustavo and that perhaps they should keep brainstorming, or scrap that idea and come up with an entirely new idea. His criticism did not come over as

constructive as perhaps he had intended, which is crucial particularly for these young participants who are already struggling to find support from their parents and way to celebrate their ancestral culture and language. Gustavo then suggested things that would be interesting, such as funerary rites, that he felt would be better subject matter, which again was not only an imposition of his personal interest, but it also eventually influenced many of the participants' choices of subject matter. It was then that I, more than José, felt that this was taking the workshop in a direction that did not allow the youth to explore their own personal interests and that took away from their creative agency and personal exploration.

> **Giovanny:** I really enjoyed seeing Gustavo's videos and him giving us a chance to handle professional equipment. He also showed me that one can make a career as a documentary filmmaker, but at the same I sometimes felt that he didn't really understand our ideas.

> **Soledad:** I don't want to do a video about funerary rites. I don't find that stuff too interesting. I would rather do something on Iguana hunting. Is that possible?

I responded that this was not about what Gustavo or José or I found interesting. "The point of making a cellphilm here is for you to find something that you find interesting and/or what you want to learn or know more about. This is about you exploring in greater depth aspects of our culture and language that speak to you."

> **Edward:** *Profe* (professor), between me and you I don't think he gets what we are trying to do here and that might be because he is not from here or doesn't really understand our customs and the language crisis you and the others described earlier. I just don't find his feedback entirely helpful and neither do a lot of the others.

 In the end Gustavo was a guest speaker who graciously donated his time and did engender some excitement among the participants. However, it was illustrative of what

can happen when someone comes in and leaves from outside the community; someone who, while a well-intentioned ally, was not as familiar with the community, its history, or cultural practices and protocols and who failed to appreciate and understand a community perspective. And by failing to understand this community perspective, many of the participants, including myself, felt that Gustavo was imposing an agenda and/or a perspective that did not necessarily fit with the goals and objectives of not only the workshop and participants, but ultimately the community and its citizens. To really understand what a community may or may not find interesting, you need to be part of it, and even then, this is a very subjective and individual matter that should not be imposed on any participant. It also reminded me about how working in a community, whether it is your own or not, the dynamics of group work means making compromises and negotiating certain perspectives and agendas and finding ways to foster and maintain conviviality in the group.

Unforeseen Circumstances

Research projects, like life, have unexpected elements; one can never anticipate challenges, but should let them unfold. The day after the storyboarding exercise, our community was devastated by a chikungunya and dengue epidemic to which José and I succumbed, along with many participants. In addition to this outbreak there was also a region-wide strike in all the schools, which meant that many of the participants had to travel outside of the community to complete their year in order to graduate and be able to attend college in the fall. Both these occurrences seriously affected the outcome of the workshop. We started with 35 participants at the orientation, which diminished to between 20 and 25, but once the chikungunya and dengue epidemic broke out, coupled with the educational strike, one by one participants either fell ill or had to leave for other reasons, which left the workshop with only 9 participants who completed it. The project suffered in many ways: only three cellphilms were produced and two of them

were left unfinished because I could not edit because I was ill and then had to leave, though I did return 4 months later to complete the editing process and screening with the participants and community.

Another unexpected and unforeseen issue was the heat, which on average was 40 centigrade during the time of the workshop. This limited when participants and Elders could film. Many Elders were falling ill because of heat exhaustion, so to ensure that both Elders and participants were safe we collectively decided not to film on days of extreme heat. Moreover, the heat affected an iPod touch and an external drive, both of which held cellphilm footage that needed to be reviewed and edited. Both devices stopped working and, while I had implemented a very stringent policy of saving everything on three devices at the end of the day to safeguard the footage, these devices stopped working while participants were filming a cellphilm in the marketplace, which resulted in losing valuable footage and knowledge. In fact, the pair that had worked on their cellphilm of the marketplace both fell ill and could not re-create their cellphilm in the end.

There were several parents who confronted José and me on different occasions of their children coming home much later than expected. However, these young people, we found out later, were not even part of the workshop, but instead they had used the workshop as an excuse to stay out later, which was upsetting to José and me because incidents like this can quickly taint the reputation of our collective and the work we do that is founded on the trust parents and other members of our community place in our collective and projects such as this one. José and I asked the participants to tell these youths to stop using our workshop as an excuse to hang out. We, of course, notified these parents and told them that their children were never part of our workshop, but we also tried to ameliorate this situation by addressing it on the community radio station. We sent a message to the community and explained the current situation. On air, with the consent of the remaining participants, we announced who was part of the workshop to confirm to our community and parents who was actually in attendance and who was not.

Discussion

Zapotec youth in our community, much like youth elsewhere, are surrounded by many technologies that have become a fundamental part of who they are, how they express themselves to the world or their communities, and more generally, have just become a central part of their everyday lives. "Although Elders may not be as receptive to today's technology, youth are indeed the future of Indigenous languages" (Galla, 2016, p. 1144). Despite the fact that my project tried to capitalize on the cool factor of technology to attract youth to it, there is, more importantly, an understanding that youth are already using technology in innovative ways to express not only their cultural identity, but their language as well, via texts and videos, which is what I wanted to take advantage of, and attempt to sustain. However, this project avoided making the cellphone or iPod the central component by combining the participatory cellphilm approach with a community-based traditional and cultural programming approach (see Pecos & Blum-Martinez, in Hinton & Hale 2001, pp. 75-82) which means locating video documentation and language learning in the midst of making *tamales*, planting corn crops, and carrying out other traditional practices. This was done through a series of intergenerational workshops which paired youth and Elders in various settings in the community, where both were engaging in a dynamic dialogue of teaching and learning within the lived context in which language acquisition occurs (Eira, 2007), so this transformed the cellphone into a heuristic device allowing youth to learn both our Zapotec language and our cultural practices. Through these intergenerational workshops we have found an important balance and synergy between cellphone technology, Elders' knowledge of language and cultural practices, and youth's technological skills, which allow and also ensure both intergenerational connection and knowledge transfer. Lastly, this approach, like many approaches utilizing technology, does have a documentation component that functions on two levels. The most obvious is in the form of videos for future generations or as learning resources, but the second and more important is

within the students themselves. Inspired by the teachings of Na Modesta, I truly believe that by youth learning our language through active participation in ancestral practices, the documentation is being stored in them with my hope that they will share that knowledge with the next generation.

Conclusion

The responses of the participants made me think of the powerful words of Cree scholar Winona Wheeler on decolonization, because in many ways they capture the transformation and the lived experience that many of the young participants described as well as the ethos that this approach and workshop tried to embody and sustain. Wheeler states that a large part of decolonization is:

> developing a critical consciousness about the cause(s) of our oppression, the distortion of our history, our own collaboration, and the degrees to which we have internalized colonialism's ideas and practices. Decolonization requires auto-criticism, self-reflection, and a rejection of victimage. Decolonization is about empowerment, a belief that situations can be transformed, a belief and trust in our own peoples' values and abilities, and a willingness to make change. It is about transforming negative reactionary energy into more positive rebuilding energy needed in our communities. (as cited in Wilson, 2004, p. 71).

The goal, therefore, of these workshops was to effectively help change the way in which these participants *see* their world and by doing so they become able to change the world around them.

7

Final Thoughts and Reflections and Future Directions

Bennette (2003) noted that multimedia technologies among Indigenous communities are viewed in contrasting ways as a double-edged sword. They are viewed, on the one hand, as an unnecessary tool or a distraction that can and does bring along with them mass media, and global culture and languages, such as English and Spanish, that cause the erosion of cultural traditions and languages (Liberman, 2003). In addition, there are other possible ramifications such as "the invasion of privacy, [the] digital public domain used for personal gain, the misuse of control … and manipulation" (Delgado, 2003, p. 94). Paradoxically, on the other hand, a well-designed intervention using these same technologies, as Liberman (2003) asserted, can provide the same population with new tools that can be used to preserve, promote, and strengthen both language and culture. This is particularly relevant to many Indigenous communities around the globe, because, as Galla (2012) pointed out, "Youth born in the 21st century are surrounded by

a multitude of technology and cannot live without it: cell phones, Internet, e-mail, and iPods" (p. 62). Because technology is such an important part of everyone's everyday lives, particularly those of young people, this situation will persist for some time. Also, because Indigenous youth are becoming increasingly active participants in global youth culture, finding ways to make their ancestral languages such as Diidxazá relevant is becoming more difficult.

Global pop culture comes with embedded stereotypes such as the dichotomy that pits the modern against the traditional. For youth in Indigenous communities this becomes a barrier between themselves and their Indigenous identity. Mass media, the global market, and the state of education in dominant languages can all become challenges to local meaning and, therefore, to local language acquisition. What is at stake in the weakening of language in Indigenous communities is the resulting rupture it causes between generations, because this hinders the younger generation's ability to connect to the roots and context of their community. Ultimately, the survival of a language depends on having a healthy intergenerational community of speakers, including young children, for whom it conveys important meanings. The central question for my research was this: How can emergent mobile technologies like smartphones and iPods be used to integrate traditional practices into the process of language transfer from Elders to the new generation?

My study sought an answer to the following question:

> **Can digital/mobile technologies such as cellphones or mobile technology, combined with a participatory approach in the context of intergenerational and experiential learning, play a role in the revitalization and maintenance of Indigenous languages?**

This project therefore aimed to examine closely the potential role that videos or, more specifically, cellphilms, could play in forging a potential language revitalization strategy that is relevant not only to our community, but, more specifically, to our *binniza* youth who, like other youth around the world, are fully engaged in new modes of technology-

enabled social interaction. Language revitalization was the central focus of the project. Through a participatory cellphilm workshop, youth and Elders were brought together in an immersive learning environment to document traditional ancestral practices like funerary practices, extracting sand, or the embroidery of various forms of *bidaani'* (traditional women's vestments). By engaging cultural processes of learning, whether it is making *tamales*, planting corn crops or doing other embodied ancestral Zapotec practices, we discovered, like other scholars (Galla, 2009, 2012, 2016; Hermes, 2014; Hermes, Bang, & Martin, 2012) have done, that combining technology with language learning will attract youth to engage with language even at a minimal level, as well as "stimulate youth as this is the media they prefer to work with" (Galla, 2012, p. 62). As we learned with Na Modesta in Chapter 4, technology can and does make learning fun and even cool. These factors should not be dismissed lightly. For example, Hugo (2015) noted that having an attractive website may lead to young people improving their attitude towards their ancestral language and even to an increase in the overall presence of the language. However, Hugo also argued that the use and role of language needs to be considered carefully. Is technology being used for technology's sake and for its novelty, or can using it enhance and/or have a lasting effect on language attitudes and encourage the learner?

Before I discuss the use and impact of the cellphone in this project it is critical to note that cellphones and other mobile devices in this project, and technology in general within our community and other Indigenous communities around the globe, cannot be conceptualized as, or seen from, a technological determinist standpoint, which is a reductionist theory that argues that society's technology determines society's social structures and values. Instead, I view technology, like mobile devices, in the same manner as anthropologist Mizuko Ito (2005) who asserted that "the relationship between society, culture, and technology is not one of a foreign object of technology 'impacting' and 'transforming' social life and cultural patterns but is rather something more organic and

co-constitutive" (p. 2). In other words, there is nothing inherent in a cellphone that makes it socially or culturally transformative. As Staldt (2008) has rightfully pointed out:

> to the users, the shell, the device itself, holds no or little affective value; it may be exchanged for a newer model. It is primarily the content and the representations it contains which establish the meaning of the mobile. Even if the mobile phone is regarded as a *personal* device, it is simply a *device*. The devices in themselves do not appear to be substitutes so much as conduits for affective and social bonds between people. (p. 158)

This sums up how mobile devices were seen and understood in this project. The cellphone in this case was not a replacement for Elders, but was, rather, a supplement to learning language and culture. As we saw with Na Modesta and again in this cellphilm project, using technology in a deliberate manner as a learning tool has been a powerful conduit to fostering and nurturing vital relationships with Elders or knowledge holders and youth. However, to create this vital intergenerational relationship the cellphone or mobile device needed to be used in a specific and deliberate manner within a face-to-face embodied context, which was done through the workshops and in working with and alongside Elders. This project was not intended to initiate the adoption and use of new technologies, since they were already part of the community's life, but was meant, rather, to help re-shape the patterns of current use from one that is passive and unmindful to one that encouraged Zapotec language and cultural learning among youth. Deliberate use means combining specific offline and online practices to create a whole experience that is embodied and takes as its central focus the lived processes of creation (food, crops, weaving) that are key to the community's survival. To extend this idea of what counts as deliberate I draw on Deloria and Wildcat's (2001) reflections on Indigenism, which they describe as:

> a body of thought advocating and elaborating diverse cultures in their broadest sense, for example, behavior, beliefs, values, symbols, and materials products,

> emergent from diverse places. To indigenize an action or an object is the act of making something of a place. The active process of making culture in its broadest sense of a place is called indigenization. (p. 32)

Therefore, I see the collective re-shaping of the current use of cellphones as a form of indigenizing the technology itself, which can also be can be framed by Dyson's (2015) concept of domestication and the particular ways in which cultural groups not only make a technology their own by adapting it to their needs and agendas, but also adapt their behaviors to the technology. As Hermes et al. (2012) noted, repurposing or indigenizing technological tools for language revitalization purposes, in this case cellphones and other mobile devices, opens up spaces for the integration of Indigenous epistemologies while also serving the needs of the community's goals. Moreover, coupling mobile technologies and language with the learning of traditional practices also helps bridge the generational gap of understanding between youth and elders like Na Modesta, a gap that is currently the most significant barrier to language and cultural transfer to new generations of Indigenous people.

This project in many ways helped to bridge this gap by bringing together youth and Elders through these participatory cellphilm workshops and by using mobile devices to bring together people around the learning and teaching of ancestral languages. This workshop also challenged seeing the use of mobile devices and digital media as a "waste of time" or simply "messing around," as some parents put it. In fact, the Elders and the parents realized that these young participants did indeed possess valuable skills and media-making knowledge, so when they saw them "playing around" on their mobile devices they were in fact becoming experts in using technology for their own needs, while also developing their voices and identities as Zapotec media creators. This had a significant impact on the collaborative relationship between Elders and youth in that the former brought their knowledge of language and culture, while the latter brought their understanding of, and expertise with, technology.

By understanding and acknowledging media-making as a form of knowledge as well as incorporating the invaluable cultural and linguistic knowledge that Elders possess, this project changed the relationship between Elders and youth from a vertical one between a superior Elder with all the knowledge and an inferior youth just passively absorbing knowledge to a more horizontal one characterized by greater interaction and reciprocity. Young people learned about language and cultural practices from the Elders, while the Elders were introduced to technology and the various accompanying skills that come with using that particular technology. As a result of this, many of the young participants in the workshop noted that they felt more confident and less intimidated when working with Elders, so they asked more questions and were more engaged with both the Elder and the ancestral practice they were filming and learning about. It should, however, be made clear that this is not to diminish the importance of the invaluable knowledge Elders possess, nor to state that youth somehow should be seen as equals in relation to them in our community, but only to say that by youth realizing that they do bring something to the table they feel more at ease when engaging with Elders. This engendered a more meaningful learning and collaborative experience, thus nurturing that intergenerational transference of ancestral knowledge, which, in turn, led towards a decolonizing process among the young participants. Young people were able to reconnect with their Zapotec culture and worldview by working alongside Elders and learning both their ancestral language and how it is intertwined with local community practices, such as funeral ceremonies. By doing so they were also actively engaging in the process of creating, which as Maori scholar Linda T. Smith (1999) has asserted, is about "transcending the basic survival mode through using a resource or capability which every Indigenous community has retained through colonization— the ability to create and be creative" (p.158). Through the creation of these cellphilms, participants were in many ways expressing and articulating what Hopi filmmaker Victor Masayesva (2005) referred to as an Indigenous aesthetic, which is in many ways

a form of remembering our relationship to our culture and how it influences what we record and why we record certain things in our world as well as how we relate to them. If you were surrounded, as Masayesva (2005) stated, albeit passively, by Native speakers and traditional performances or practices, as were the participants from an early age, then this would shape your instinct to pounce on the record button at the epiphanic moment, which is shaped by early childhood experiences. When the participants recorded Elders and their practices, such as capturing particular blessings honoring the food, or a practice that to someone like myself would go unnoticed, for example, like hand gestures that signify particular salutations, these proved to be a captivating point of remembrance for many participants who then retold stories of their grandmothers or uncles. These accumulative experiences, as Masayesva (2005) noted, are what defines and refines the Indigenous aesthetic:

> Not only is it the cumulative experience of the one individual, but it gets passed on to everyone with whom he or she comes into contact, clinging like sticky cobwebs. The immersive experience in community, beginning with the earliest, affective childhood experiences, continues to refine even the matured Indigenous aesthetic. (p. 169)

By articulating, developing, and rediscovering an Indigenous or Zapotec aesthetic, participants were also celebrating both cultural and linguistic survival and representation. Cultural survival, as the participants learned, was enacted in the everyday practices of Elders and community citizens who continued to perpetuate our language and culture through their daily work. And celebrating cultural survival is not so much, as Smith (1999) asserts, "about our demise but the degree to which Indigenous peoples and communities have successfully retained cultural and spiritual values and authenticity" (p. 145). Representation was also celebrated in these cellphilms. It was important for all the participants to see themselves and their community reflected on the screen in a positive and non-stereotypical or negative way. As Smith (1999)

has asserted, representation of Indigenous peoples by Indigenous peoples is critical for several reasons. First, it allows Indigenous peoples to counter dominant society's images of themselves and their worldviews and ways of being. Second, it is also about proposing solutions to real life dilemmas that Indigenous peoples and communities are confronting, such as the loss of language in this case, while capturing the complexities of being Indigenous. "Many of these dilemmas are internalized stress factors and are never named or voiced because they are taken for granted or hidden by the community" (Smith, 1999, p. 151). One such example that came out of making these cellphilms was that youth in our community did in fact want to learn their ancestral language and felt that their parents were in some ways gatekeepers, which has at times resulted in additional hurdles or impediments to language transfer since the culture of parents is so different from that of youth in many cases. Moreover, representation also matters because it is an important and powerful moment for not only the participants, but for others in the community to see themselves because it means that they have been moved from the margins into the forefront. This gives them hope and a voice. When people have a voice, then other people start listening and things begin to change. Everyday citizens, such as young people, mothers, grandparents, sisters, and uncles see that they can also effect change. Celebrating both survival and representation is part of effecting decolonization, which is about centering our concerns and world views. By doing so we restore our connection to the land and place, and to one another, all which allows us to live a more authentic Zapotec life.

Contributions to New Knowledge

As Hermes et al. (2012) discovered in their project with Ojibway youth and movie camps, language revitalization approaches cannot view language as content somehow detached from socio-cultural context and lived experience. Therefore, using a practice like making tamales or extracting sand as the center of language learning provides a

means to enter the lives of people at any age and at any level of language proficiency through engaging them through their senses and their intellect simultaneously. This experiential learning is at the heart of the millennial continuity of culture and consciousness in Indigenous communities, even when it brings into play cutting edge technologies like cellphone video and/or social media. It is effective because it recognizes the reality that language is embodied and interactive, not solely a cerebral pursuit.

To talk about language as a cultural practice, therefore, is to move away from the attempts to capture the imprint of a language understood as an autonomous system that prefigures its use by people day to day, towards what Pennycook identifies as "an understanding of language as a product of the embodied social practices that bring it about" (2010, p. 9). In Na Modesta's experiential teaching approach, rooted in ancestral Zapotec practices as the means to perpetuate intergenerational knowledge transfer, language as a social activity is privileged over a focus on language structure, written exercises, and learning grammatical constructs common to language studies and conventional instruction. According to Austin and Sallabank (2011), such institutional approaches to language instruction only further "transform language into an artificial object, to be learned and used only within the schools, while the living, organic form of language used in society will no longer be existent" (p.19). Na Modesta's approach of engaging us outside of the classroom setting reminds us that language and practice are actions which have a history rooted in time, place, and culture and are not abstract, static concepts.

Moreover, the young people who participated in the workshop and in the activity with the Sandman had an in-depth knowledge and confidence in their skills in using mobile devices that translated into an ease with making cellphilms. As I have already mentioned, this ease came with their everyday use and familiarity with these tools, their confidence emerging from the way the devices are almost grafted onto the hands that hold them; using a cellphone or iPod camera for young people is seemingly

as innate as the ability to move or blink their eyes. Using cellphones has not only become second nature to many of these youth but has truly become an extension of their very selves. Scholars have described the cellphone as an extension of the body or a handheld prosthesis of sorts that extends and even improves an individual's sight and hearing (Odin, 2009; Pertierra, 2005). As we engaged in cellphilming local Zapotec practices, this seamless connection to our iPods as we filmed helped us to connect further to the embodied process of learning experientially, the very mode through which our ancestral practices are passed down. In fact, the skillful use of a physical tool provided us as learners with a key point of connection with practitioners like working with the Leonel-the sandman-Ruiz whose work is also the embodied practice of the body as tool. Together, with our distinct skills our group co-created a narrative with Leonel as equal partners in the enterprise.

In recognizing the power of this handheld prosthetic to accompany our process of experiential learning, I came to see that it was fundamentally connected to our bodies. According to Merleau-Ponty (1962), it is precisely through the body that we have access to the world. Embodiment, in other words, plays a central role in structuring experience, cognition, and action (Hermans, 2002). The body, whether it is our hands making *guetabiza*, our feet feeling the water and sand with the Sandman, or viewing, learning, and participating in the ancestral Zapotec practice, has always been at the center of transmitting and receiving Zapotec knowledge: while these knowledges change and adapt through time and space, the body has been at the center of the continuity of our culture and lifeways as Zapotec people. Moreover, Zapotec epistemology and pedagogy understands that theorizing and knowledge acquisition happen through our bodies—by way of gestures, muscle memory, emotions, and movement; cellphilming, I argue, can become part of this repertoire (see Taylor, 2003). The cellphone, therefore, can become another vehicle through which to perpetuate the transfer of local ancestral knowledge because it allows us to explore different forms of

knowledge through practice-based experiences that are not exclusively visual in form, nor are they "general and abstract, but are embodied in the social, cultural and material contexts" (Cazden et al. 1996, p. 82). Through the making of cellphilms we were able to engage language learning in the lived context in which language acquisition occurs. Therefore, I argue that it is vital to the survival of our Zapotec practices to continue to explore this intentional use of the cellphone and/or iPod, one that acknowledges the embodied and multisensory relationship one can have with one's device so that youth in our community can continue to further explore meaningful ways in which to incorporate cellphones/iPods and cellphilms into our everyday Zapotec practices. And by doing so we are actively creating enough space for the old way to flourish once again.

Another important insight gained from Na Modesta's approach is that combining audiovisual media/digital technology with an experiential teaching and learning approach allows us to document the language, while at the same time practicing it. This means that the revitalization process does not have to come at the expense of documentation and vice versa. Moreover, coupling digital technologies and language with traditional practice based learning also helps bridge the generational gap of understanding between youth and Elders like Na Modesta, a gap that is currently the most significant barrier to language and cultural transfer to new generations of Indigenous people. For this transfer to occur as a living continuity, it must be embodied and experienced in the process of learning. With children being the deciding factor as to whether a language will continue to thrive or deteriorate and disappear, our community and others like it need to find strategies to both engage Indigenous youth firmly planted in 21st century digital culture, and at the same time get them involved in the ancestral practices from which the Zapotec language itself emerged. Therefore, we must continue to build on Na Modesta's approach which combines technology alongside ancestral models of experiential learning, and explore how new technologies

like cellphone video, Facebook, and YouTube provide a new and engaging space in which elders and youth can learn from one another. Through sharing a focus on audio-visual documentation of an ancestral practice, youth and elders can understand each other's distinct generational experiences of language and culture and begin to address the disjuncture and conflict hindering their speaking community. By examining how this new space, provided by a merging of technology and ancestral practice, can collapse gaps in understanding across the generations of an Indigenous community, I believe that my research findings can support community and language activities, linguists, and educators designing more comprehensive approaches to revitalizing and preserving ancestral languages in the future.

Although there are many positive impacts of cellphone use among Indigenous young people, there are also negative effects that come with mobile devices, such as the compulsion to share on social media one's videos, pictures, or other intimate aspects of one's lives or community. Because of the fleeting nature of social-media platforms, youth are not always as reflexive or conscious of the possible effects of what they are sharing (Lasén & Hjorth, 2017). As I briefly touched on in Step 5 in Chapter 5, it is important to inform participants that once a video is posted, the video is out there and cannot be taken back, and while it can be taken down by the user it can still have long-term implications for the user, a third party, or even the community. It could leave a community vulnerable to cultural and knowledge theft or appropriation. This is why it is absolutely critical to discuss with participants the potential long-term implications of sharing a video and to try to develop, with the involvement of Elders, some guidelines about what content can and cannot be shared outside the community. The plausible scenarios and issues I have raised are by no means exhaustive or exclusive to our community, which is why the process of developing guidelines with a community must always be ongoing and constantly adapting to new forms of social and digital media and contexts.

Limitations of the Study

As with any study or project, there were limitations, and this project was no exception. There were several unforeseen factors that affected this study's findings, beginning with the chikungunya[73] and dengue epidemic, coupled with a statewide school strike, which diminished both the number of participants and cellphilms that were produced. This was also compounded by a severe heat wave which precluded not only Elders from participating, but also forced the cancellation of workshop sessions and cellphilming by participants. These factors unfortunately prevented us from realizing a community cellphilm festival, which would have exhibited several cellphilms and been able to reach a wider community audience, as well as possibly yielding a wider array of perspectives and suggestions on how to address language loss in our community. Moreover, many of the participants expressed on different occasions that they wished that the project had lasted longer than two months because they felt that more cellphilms could have been produced. These limitations were the result, largely, of budget, personal schedule, and participants' schedule constraints, including either leaving to go to university or starting back at school.

The overall project took a total of four months (one month of organization and community-wide promotion with two months of workshopping and a month's follow-up four months later). Although this study yielded very promising results, such as all participants unanimously stating that they felt they had learned new vocabulary, had been exposed to, or learned more about, an ancestral practice and also that they felt more comfortable working with Elders and saw this as an exciting approach to learn language, it would be a falsehood to claim that participants through this cellphilm experience and workshop were likely to emerge as fully fluent speakers of Zapotec. Having taken into consideration many of the positive outcomes, José and I are

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[73] http://www.istmopress.com.mx/especiales/chikungunya-la-enfermedad-de-moda-en-el-istmo-de-tehuantepec/

interested in the longer term impact of the project might have on language acquisition and attrition rates in the community.

Another issue faced in this project was that of motivation. How do we keep participants motivated? A lack of motivation is not something that is restricted to just youth, but affects participants of any age, as I have seen in our community-based projects. In this particular project and study many of the youth found the storyboarding exercise and the ongoing *assembleas* tedious and time consuming. They really wanted to get to the action, which in this case was cellphilming. It seemed that participants in general want to see or effect change through direct action, without realizing that action requires planning, discussion, and revision. In this case, many of the young participants would either show up late or not at all which directly affected how the cellphilm workshop could and would proceed. For example, when participants did not come, José and I could not gauge at what stage they were at in their project, nor know how to support or help them proceed, or whether they were still at the idea stage and needed assistance to connect with an Elder, for example. All these aspects directly affected the progression of the workshop and the project in general, which was another factor that contributed to the low number of cellphilms produced. There were several occasions when only one participant would show up and José and I were confused as to how to proceed. If we went on with the workshop as planned, we would have to repeat the process again at a later date. We did find that sending out messages on the group Facebook page helped, but having to track down and message participants constantly on multiple platforms did become quite time consuming, onerous, and frustrating for José and me. Moreover. José and I both concluded, based on our numerous experiences in organizing and running community workshops, that *motivation* will always be an existing hurdle that needs to be accepted and dealt with on a project by project basis. It is however a more acute issue in these longer-term projects. Perhaps exploring new and alternative ways to keep participants motivated could be a new avenue for future research.

Recommendations for Future Studies

Since this project was very much a collaborative effort, the recommendations that are shared in this section are a combination of the ideas put forward by the participants, their parents, and the Elders, but are also based on observations that José and I made, several of which come directly out of the discussion above:

1. Workshops should be more frequent and we should extend their duration for several reasons according to participants and our observations. One possible future option could be a cultural summer camp- one week- (24/7) where participants are in constant contact with Elders while filming. We need to encourage more youth to speak our language and develop bonds with Elders and knowledge holders, so as to foster greater intergenerational transfer of knowledge and language. We must continue to scrutinize this approach and better comprehend the implications of mobile technology with respect to language revitalization and knowledge transfer.

2. We need to ensure that all future language revitalization projects and workshops in the community include a female facilitator, while also remaining cognizant of how gender affects language learning and revitalization outcomes, so as to better understand how language loss is experienced differently, which could aid in creating gender-specific teaching and revitalization approaches. In addition, to having a female facilitator, future projects must include an Elder-in-Residence.

3. Videos must include more Zapotec dialogue[74] so as to enhance the language learning experience for anyone viewing the videos. By increasing dialogue in Zapotec the cellphilm can become a language learning/teaching resource for the

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[74] The lack of Zapotec dialogue in the cellphilms may be a result of the fact that many of the participants were either not fluent speakers or could not speak Zapotec at all, so the younger generation expresses cultural identity as inherent in a process associated with a broader definition of language as a cultural practice (Evans, 2011; Pennycook, 2010).

community and/or schools, thus allowing viewers and listeners to appreciate the tonal nuances of the Zapotec language, which is key to learning and becoming fluent in Zapotec.

4. We need to conduct a community initiative and focused language census/survey so that we can get a more accurate picture of the language attrition rates specifically among youth. By understanding generational attrition rates, community-specific resources can be created to target specific generational demographics. For example, many people in José's generation or generation X tend to have varied levels of Zapotec language learning skills. Some are fully fluent, while others, such as José for example, cannot speak it but can fully understand the language. As parents of the next generation, generation Xers need greater support as well to help pass on the language in the home context.

5. We need to create an online news channel that can stream on YouTube, which will be run and curated by youth who will focus on local community events, human interest pieces that deal with Elders and their practices, or other community focused stories. This YouTube channel could also function as an online community archive that anyone in the community could access to learn more about an Elder, their practice, and community history, for example.

6. We should combine these efforts with the community radio station to reach a wider audience and age demographic and find ways that they can work in tandem. Including another form of technology, such as radio for example, may improve our understanding of the different roles different technologies can play in language education. Radio tends to be a very popular medium with Elders, so we need to work out how we can use this fact to help support young language learners in our community. Could they have weekly shows that are streamed online where youth and Elders share their expirences on an array of subjects, such as language loss and revitalzation, for example?

7. In the future approach the bilingual school in Union Hidalgo to see if a similar workshop could be carried out with young students. Future language initiatives therefore need to include and work together with the bilingual school to have a greater impact on preventing language loss in the community. Perhaps our collective as well as others could create better resources that can be used in the school and/or in after-school programs.

8. Include younger participants in future workshops. The reasoning behind this is to try to nurture first language speakers, which requires targeting children from a young age, so that they can learn Zapotec not as a second language, but as a mother tongue. Children as young as two years of age are already using mobile devices in the home, so, by including younger participants in workshops using mobile technology, perhaps we can gain greater insight as to how these devices can be used to encourage Zapotec language and cultural learning as opposed to be used only to watch purposeless entertainment apps. Also, by including younger participants, greater insight can be gained on aiding the creation of age-appropriate and culturally supportive content for toddlers and young children.

9. We must continue to explore how mobile technology can be used to support language in the home, specifically focusing on toddlers and young children, thereby supporting first language learning scenarios.

10. We need to create more Zapotec language learning resources for younger audiences.

Future Directions/Research

As with many projects in communities, we need reflection and vital feedback from the community and participants, because, in Young's words (1999), "the research process is never ending. It is part of what has happened before and will continue to be part of what happens in the future" (p. 32). A future project that would further enhance later

projects addressing language revitalization is carrying out a community-based and focused language attrition rate survey/census. Although steps were taken to initiate a community-wide survey, because of factors beyond our control, such as chingukuya, time, the budget, and a region-wide strike, we could not finish the surveying of all the schools. I was able to survey only one of the five schools in the community before the region-wide strike took place. Even that school survey was not fully completed because many of the students had already fallen ill with chingukuya, so the project was abandoned. However, the intended survey/census was going to target youth from the ages of 5 to 18 specifically, asking such questions as: Do your parents speak Zapotec in the home? Are you being taught Zapotec in the home and at school? What is your perceived proficiency in Zapotec? Do you think that learning Zapotec is important? Why? Why not? This census/survey was meant to provide a better and more nuanced picture of the current language situation in our community because the community feels that the census conducted by the government is not only vague, but it does not give enough attention to language rates among youth who are the future speakers and keepers of our language. Therefore, had this survey been realized, our community would have had a more accurate picture of the number of younger speakers in the community because in terms of actual numbers, much of what is "known" is based on estimates and anecdotal information, coupled with the INEGI census conducted every five years. Five years may not seem like a long time, but language loss is a serious crisis that does not pause or stop, so by having a more complete set of numbers of speakers, Jose and I, as well as others in our collective, felt that our community would have a better idea about how to proceed to address this crisis. Also, having an understanding of, and access to, these numbers, I also feel it could have affected the project by recognizing what age groups needed to be targeted, for example.

Another direction for later research could come in terms of design. This study did not include young children or non-Zapotec-speaking adults and was limited mostly

to adolescents. By including a wider age range the study could have resulted in a more nuanced understanding of language attitudes and different historical and socio-cultural factors contributing to attrition rates across a wider range of generations. For example, generation X-ers are now parents who are currently not fluent in Zapotec, such as José and me, which has affected the transmission of the Zapotec language to their children. This study was limited to youth, based on community input from former language revitalization initiatives, which emphasized targeting youth, but also for practical purposes, such as the fact that for many parents it would have been difficult if not impossible to participate in a long-term project with varying time frames.

In reflecting on the cellphilms and process, both parents and participants (youth and Elders alike) in our community concluded that using mobile and or digital technology in innovative ways to perpetuate our language and culture was important, particularly because they are such a central part of Zapotec youth's everyday reality. Also many parents and participants realized the significant potential in these new forms of technology, mobile and/or digital, and many expressed the belief that the community should continue to explore other ways in which these new technologies could support language acquisition, whether it was more videos, games, and/or other resources. Despite the relative success of this project, many parents did note that it was aimed only at adolescents who were second language learners of Diidxazá. As a result, parents and Elders recommended that future language revitalization initiatives in our community *must* also be aimed at young children (0-5 years). Therefore, the next community project will build on this critical feedback and will develop a young children's picture book and related app that uses the same Elders and their ancestral practices (such as farming) as were used in the cellphilms for this doctoral project as its basis. The envisioned project therefore aims to address early childhood Indigenous language learning at *home*, a gap that brings together four key themes through a community-building process based in my maternal grandfather's community of Ranchu Gubiña in the State of Oaxaca:

1. early childhood literature;
2. educational technologies;
3. Indigenous Zapotec pedagogy; and
4. language acquisition.

These key themes will address the recent shift from Diidxazá to Spanish in our homes by developing a much- needed comprehensive language learning resource that can be used by parents and Elders in our homes through the creation of this children's book and app. The book will be made up of a series of visual vignettes illustrating different local Elders conducting an ancestral practice such as cooking tortillas, planting corn, etc., while the learning app, *Aurasma*, will allow users to create and upload content, such as a video of the Elder in the vignette or a sound file of various words, which can be accessed by simply pointing a mobile device at a "trigger" (photo, object or drawing) that has an "aura" attached to it (interactive experience featuring animation, video or image). The app will play a pivotal role in assisting parents with proper pronunciation and it will foster independent learning among children, allowing them to experience the traditional practice fully narrated in Diidxazá.

Neo-liberal globalization and the omnipresence of Western media has had the power to displace, erode, and even assimilate other cultures, contributing to perpetuating a global monoculture and a lack of accurate, meaningful, and positive cultural representation of Indigenous realities (Tabobondung, 2010). I was particularly excited that the young participants, having participated in this embodied cellphilming process, transformed their perceptions regarding their community, culture, language, and their own capacity to organize, and realized that change is possible and that this change starts with the self. The point of this exercise was to help sensitize these youth to understand that the role that our language and ancestral practices play in our everyday personal lives is an important place to start. A focus on self is a starting point for decolonization, as noted in a quote in the last chapter from Mohawk scholar Taiaiake

Alfred. Alfred also notes in another publication that a critical path to decolonization is "by reculturing yourself and by recentring yourself in your homeland" (2017, p. 12).

I was also particularly excited to see that the workshop motivated other youth to take up their cellphones and produce their own cellphilms about our community and share their video and experiences on their Facebook pages, all in the hope of preserving, promoting, and strengthening our Zapotec language and culture. This dedicated action and commitment by these youth reminded me of a famous Zapotec poem entitled *Diidxazá*, "the Zapotec language," written by famed Zapotec poet and intellectual Gabriel López Chiñas:

Nácabe ma' che' Diidxazá,	They say that Zapotec will disappear
ma guiruti' zaní' laa;	That no one will speak it;
ma' birá bil	Some say it has already died,
Diidxa' guni binnizá.	The language of the Zapotec people.
Diidxa' guni binnizá	The language of the Zapotec people.
Ziné binidxaba' laa,	The devil has taken it,
Yanna ca binni nuu	Now educated Zapotec
xpiaani' guirá' rini' didxastiá	people only speak Spanish.
Ay! Diidxazá , Diidxazá,	Oh! Zapotec, Zapotec,
Ca ni bidiidche lii,	So many have disparaged you,
Qui gannadica' pabiá	Ignored you, while our
jñaaca' gunaxhiica' lii	mothers continued to love you
Ay!, Diidxazá , Diidxazá ,	Oh, Zapotec, dear Zapotec
diidxa' hrusibani na',	language that gives me life
na' nanna zanitilu', dxi initi gubidxaca'	I know you will not die until the sun's demise.

In the end, this was a collaborative effort and everyone who participated and made this workshop possible deserves praise, but I wanted to especially applaud the dedication and commitment of these young participants to documenting and continuing to learn their language and culture, which gives me and others in our community hope that our Zapotec lifeways will continue for many generations to come and not die, as Chiñas put it, "dxi initi gubidxaca'," until the sun's demise.

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Appendix 1

Diidxazá (Zapotec)	Español (Spanish)	Inglés (English)
Binnigula'sa	Antepasado	Ancestors
Binnigolanu	Persona de mayor edad	Elder
Binni guenda bianni'	Persona de mayor edad que tiene y transmite sabiduría (Personas creando luz)	Elders who transmit knowledge and traditional lifeways to others in the community (People creating light) (See: Royce, 2011).
Guidxilayú	Tierra, mundo	Land, earth
Layú	Suelo	Soil
Diidxa Hrui'Cabe	Nuestra historia del pueblo o binnizá	Our history
Guela	Milpa	Corn field
Xuba'	Grano de maiz	Corn kernel
Niza	Maiz	Ear of corn
Guetabiza	Tamale de frijol negro	Black bean tamale
Xquenda	Mi cultura, origin, espírtu	Culture, origin, spirit
Yuxhi	Arena	Sand
Bidaani'	Traje o vistimen tradicional usado por mujeres or muxes	Traditional vestimen used by women and muxe (third gender) persons.
Mediu xiga	Son ritual para bodas adonde invitados dan dinero, símbolo de ayuda económica, cada donante recibe un cantarito de barro que puede quebrar y cuando se quiebra es un símbolo de unir las familias	A traditional dance at weddings, where guests gift the married couple money, a symbol of economic aid, each donor receives a small earthen jar that can break while dancing, which is also a symbol of uniting the families.
Libana	Una forma casi extinta de la liturgia zapoteca	An almost extinct form of Zapotec liturgy
Cinemobile	Cellphilm	Cellphilm

Appendix 2

Promotional poster for the cellphilm workshop.

Appendix 3

Newspaper articles about the cellphilm workshop.

EL SOL DEL ISTMO,
www.elsoldelistmo.com.mx

Domingo 17 de mayo del 2015, Salina Cruz, Oaxaca, México.

REGIONES 07

Convocan a jóvenes unidalguenses a participar en el Taller de Cine Documental

El taller se estará realizando los sábados y domingos de 10:00 a 14:00 horas y de 16:00 a 19:00 horas, en la calle Guadalupe Victoria número 8 del centro de esta población

NO SE LES cobrará a los jóvenes de esta comunidad que participen en el taller, sin embargo cualquier persona de las poblaciones aledañas que estén interesados en participar se les cobrará una cuota de recuperación de 200 pesos

» JOSÉ LUIS LÓPEZ
» UNIÓN HIDALGO.-

Con el fin de promover las actividades creativas en el sector juvenil de esta comunidad, los integrantes del Colectivo Binni Cubi, convocan a los jóvenes a participar en el primer taller de Cine Documental que dará inicio este próximo 23 de mayo en esta comunidad.

José Arenas López, integrante de este colectivo de activistas, explicó que este taller está dirigido a los estudiantes de esta comunidad y estará enfocado a la cultura zapoteca, y se tiene previsto que al concluir el taller se haga una exhibición de los trabajos realizados.

"La idea es dar las herramientas a los jóvenes, estudiantes y personas interesadas para producir documentales, pero también lo que buscamos es que se enfoque hacia la cultura zapoteca, para que hayan más producciones de nuestra cultura".

Destacó que el taller lo imparte Gustavo Mora, que es un documentalista Argentino que se encuentra recorriendo el estado de Oaxaca, y tras recibir la invitación para impartir este taller, se ha hecho esta programación.

Joshua Scwab Cartas, de la Universidad de Macgill Montreal, Quebec, Canadá, informó que el taller se estará realizando los sábados y domingos de 1000 a 1400 horas y de 1600 a 1900 horas, en la calle Guadalupe Victoria número 8 del centro de esta población.

"Esto es parte de mi proyecto de Doctorado, y es compartir herramientas y ver las estrategias para preservar la lengua zapoteca aquí en el pueblo, y queremos tener como 20 participantes y sólo será los sábados y domingo, hasta el 7 de junio, tenemos pensado proyectar todos los documentales que resulten del taller".

No se les cobrará a los jóvenes de esta comunidad que participen en el taller, sin embargo cualquier persona de las poblaciones aledañas que estén interesados en participar se les cobrará una cuota de recuperación de 200 pesos.

EN UNIÓN HIDALGO
Imparten taller de Cine Documental dirigido a jóvenes

UNIÓN HIDALGO,
JOSÉ NIETO.

Integrantes del Colectivo "Binni Cubi", realizan diversas actividades dirigidas al sector juvenil entre ellas el primer taller de Cine Documental que dará inicio este próximo 23 de mayo en esta comunidad.

Por ello, José Arenas López, vocero de esta organización, explicó que este taller está dirigido a los estudiantes de esta comunidad y estará enfocado a promover la cultura zapoteca, por ello, se tiene previsto que al término del mismo se hará una exhibición de los trabajos realizados.

"La idea es dar las herramientas necesarias a los jóvenes, y personas interesadas en la realización de documentales, pero también se busca promover nuestra cultura, e impulsarla más allá de las fronteras".

Destacó que el taller lo imparte Gustavo Mora, documentalista Argentino que se encuentra recorriendo el Estado de Oaxaca, al igual que, Joshua Scwab Cartas, de la Universidad de Macgill Montreal, Quebec, Canada.

Por ello, este taller se estará realizando los sábados y domingos de 10 a 2 de la tarde y de 4 a 7 de la noche en la calle Guadalupe Victoria número 8 del centro de esta población y tendrá una duración de un mes".

Por su parte, Joshua Scwab Cartas explico que este trabajo forma parte de su proyecto de Doctorado, por ello, es comparte herramientas y estrategias para preservar la lengua indígena, en este caso la zapoteca, por ello, buscan tener como mínimo 20.

Los organizadores dieron a conocer que, no se realizara cobro alguno a los jóvenes de esta comunidad que participen en el taller, sin embargo cualquier persona de las poblaciones aledañas que estén interesados pedirá una cuota de recuperación de 200 pesos.