Paper to IAMCR Christchurch 2024
Media Education Research Section
Spring 2024

Evaluation of knowledge and disposition of *CMIIQUE IITOM* (Seri) language speakers in Punta Chueca, Sonora, towards digital media

Abstract

Although it has long been thought that access to the Internet and electronic devices in remote places may be limited, in this study we focus on exploring and describing such access, its use, knowledge and willingness to use it as an educational tool among speakers of *cmiique iitom* (Seri) in Punta Chueca, Sonora. Using field observation, semi-structured interviews and surveys, theoretical approaches associated with communication and education are discussed to contribute to knowledge through five dimensions: access, use, knowledge and disposition to digital media for specific educational purposes.

Keywords: digital media, evaluation of knowledge, field observations, interculturality, interviews, survey

Introduction

The first year of this study aimed to evaluate the interaction of teachers, students, girls, boys, adolescents and *Cmiique IItom* (Seri) speakers from *Punta Chueca* with digital media. *Punta Chueca* is in the municipal area of Hermosillo, in the northwest part of Mexico and the California Gulf Coast. 211,000 hectares comprise their territory. The strategy was to understand their knowledge of digital media oriented to the purposes of the project: the intercultural writing and digital editing workshops for the creation of teaching materials at CMIIQUE IITOM, funded by the National Council of Humanities, Science and Technology (CONAHCYT[1]).

Based on previous studies related to the media and digital competencies of members of ethnic communities in various parts of the world (Condeza Dall'Orso, Gálvez Johnson, Herrada Hidalgo, & Fernández Medina, 2021; DeWaard & Hoechsmann, 2021; Doherty, 2002; Johnson, 2016; Johnson & Oliver, n.d.; Li, Zahiri, & Jumaat, 2020; Lopez, 2021; Madison, 2021; Prayaga, Rennie, Pechenkina, & Hunter, 2017; Samuel-Azran, 2012; Uzuegbunam, 2021; de Block &

[1] National research and advocacy projects aimed at promoting literacy as a strategy for social inclusion. Call for proposals 2021-2024

Buckingham, 2007), this study was aimed at identifying these competencies in elementary, junior high school, high school and Seri language teachers, and students girls, boys and adolescents in Punta Chueca, Sonora, since the conditions in each of the indigenous communities of the world are different. Therefore, an inside-out approach was adopted to study the phenomenon with a mixed-method orientation (Bergman, 2011).

Based on this, the following research question was formulated: What is Seri language speakers' knowledge and disposition towards digital media? To answer this question, five dimensions were covered: 1 satellite internet connection and access to electronic devices, 2 notepad or digital writing sheet - Microsoft Office: WORD, 3 blogs, video communication - ZOOM platforms, and information storage, 4 digital editing programs - Paint and cell phone editors, and 5 transmission of media and digital knowledge. An exploratory approach was made through seven semi-structured interviews with Seri language community specialists. Afterwards, a three-day exploratory participant observation was conducted in the community. In a second visit, a written quantitative questionnaire was applied to 92 elementary, junior high school and high school students.

Although the initial premise leaned towards zero use and knowledge of digital media, the entry evaluation process was revealing. The theoretical approaches and empirical evidence that precede this study are presented below. The steps followed to select the people who participated in the evaluation of knowledge related to digital media and the type of sampling used are also described; the methodology and its research techniques are discussed. As evidence of this process, the most outstanding results are presented based on the five dimensions mentioned above, and the empirical evidence is contrasted with the results in a theoretical reflection.

Literature review

The existing literature on media and digital literacy tells us that there are five competencies or dimensions for analysis (Li, Zahiri, & Jumaat, 2020): access competency, analysis and evaluation competency, creation competency, reflection competency of reflection, and action competency of action. At the same time, five theoretical approaches are also clearly identified: one related to the area of digital competence, another with digital literacy, another with media literacy, another that is an extension of media literacy but online, and the other associated with computational thinking and information and media literacy.

Concerning the area of digital competence, which has to do with information management, collaboration, ethics and responsibility, evaluation and problem solving, and technical operation, Wilks, Wilson, and Kinnane (2017) narrate the experiences through different dimensions of this competence, of Indigenous and non-indigenous educators in Australia with students from remote areas who entered a higher education level of study through online instruction. For example, these students' access to information and communication technologies is limited to what their community and their personal income offer them. Community-based technical facilities not only assist students with their internet connection but also boost the development of their digital skills. They also identify that most Aboriginal people living in remote areas, mainly young people, have a cell phone. For Indigenous and non-Indigenous educators, Facebook is an important platform for facilitating communication between them and students and sending messages and notifications.

However, they do not see it as an educational tool per se. Other things that educators identify are the need for not only literacy assistance but also technical assistance, which guarantees students' involvement in remote online learning. Wilks, Wilson, and Kinnane (2017) mention a very important thing in the results of their study, and that has to do with the way of participating in the daily work of the family and community among the inhabitants of remote areas in Australia and the strictly individual way of online learning. Unfortunately, the conception of community work clashes with the individualistic work of online learning. Trust between educators and students and the role of government literacy programs are also important in engaging students in such an online learning process. For example, the Aboriginal Tutorial Assistance Scheme (ATAS) is in Australia.

Regarding the extension of online media literacy, Doherty (2002) notes two dimensions to consider within the design and pedagogical decisions that distinguish his literacy program for Aboriginal students in Australia: the context and the project participants. , and nine different pedagogical characteristics. When she talks about the former, she emphasizes the actors and instances that must be considered for appropriate literacy: the government schools at the elementary and junior high school level in the community of Ipswich; the aboriginal students and their parents; the government offices in charge of educational issues for this type of communities; the Graduate School of Education at the University of Queensland; the office in

charge of supporting the aforementioned students profile within said University; and the community service office and research centre on the Ipswich Campus.

On the other hand, Doherty (2002) talks about nine distinctive characteristics of his program: avoiding the deficit paradigm, which refers to being beholden to one or another indigenous and non-indigenous population; the exploration of different roles for readers; develop multiple literacies through texts and technologies; build a community of experts; develop a technical vocabulary; be inclusive when it comes to the world of students; promote independent learning and problem-solving strategies; experience electronic communities; and include role models.

A study very similar to the one presented here is the one by Prayaga, Rennie, Pechenkina, & Hunter (2017). In it, these authors evaluate how the skills of indigenous students and other factors influence the correct use of online courses. In this study, the authors initially survey to identify aspects related to digital literacy, then identify difficulties that influence the proper use of online courses. In the survey, they measure the time of Internet use, the uses they give to the Internet, their access location, how expert Internet users are, their enrollment in courses according to their skill level, and their Internet skills by groups of students enrolled in projects. Regarding the location of internet access, 64% of indigenous students said they have internet access from home. 73% said they connected from home even through their mobile phone, while 63% said they did so from work. 25% of respondents said they connected to the Internet from the local library or community center. 53% consider themselves an internet user with basic or intermediate skills, while 47% say they are experts in its use.

Based on the literature review above, the following general and specific research questions were formulated:

General research question

What is Seri language speakers' knowledge and disposition towards digital media?

Specific research question

What access do they have to digital media?

What use do they give to digital media?

What skills or mastery do they declare and demonstrate in their interaction with digital media?

What willingness do they have to learn and use technology?

Data and methodology

Based on previous studies related to the media and digital competencies of members of ethnic communities in various parts of the world (Condeza Dall'Orso, Gálvez Johnson, Herrada Hidalgo, & Fernández Medina, 2021; DeWaard & Hoechsmann, 2021; Doherty, 2002; Johnson, 2016; Johnson & Oliver, n.d.; Li, Zahiri, & Jumaat, 2020; Lopez, 2021; Madison, 2021; Prayaga, Rennie, Pechenkina, & Hunter, 2017; Samuel-Azran, 2012; Uzuegbunam, 2021; de Block & Buckingham, 2007), this study was aimed at identifying these competencies in elementary, junior high school, high school and Seri language community specialists, and students girls, boys and adolescents in Punta Chueca, Sonora. Since the conditions in each of the world's indigenous communities are different, the approach adopted to the study phenomenon was from the inside out, with a mixed method orientation (Bergman, 2011).

First, an exploratory approach was made through semi-structured interviews with Seri language community specialists. Afterwards, a three-day[2] participant observation was carried out in the community to explore situations of interaction between teachers, girls, boys and adolescents and the digital technologies available to them, and then spoke with at least one member of said profiles about the topic. We spoke with local bilingual elementary school teachers and the Seri language community specialists during this visit. In a second visit[3], a written questionnaire, quantitative survey type, was applied to the profile of students and teachers, including junior high school and high school teachers.

The universe or population refers to the population that meets the study profile (Hernández, Fernández, & Baptista, 2006). The universe comprises the Seri Language speakers with a population of 723 individuals: 336 women and 387 men (Cuentame INEGI, 2022), primarily located in Punta Chueca and Desemboque de los Seris, Sonora. For the evaluation, we worked only with the inhabitants of Punta Chueca, due to the easy access by paved road and because most of the Seri language community specialists are in said place. Punta Chueca is a town facing the sea, and most of its inhabitants are fishermen or hunters on the desert side. On the site is a bilingual elementary school with five teachers, four are Seri language speakers, a

2 From June 7 to 9, 2022.
3 From October 10 to 13, 2022.

telesecundaria[4], and a *telebachillerato*[5]. There is also a classroom on site where the local language is taught in an intermittent way. It brings together teachers and students from the abovementioned levels. There is a study population in this classroom of around 30 girls, boys and adolescents interested in learning or polishing their speaking, writing, comprehension, and grammar skills in the Seri language. The school is really dependent on external projects and funds and has not been able to have continuity despite the motivations of instructors and students.

A mixed method (Bergman, 2011) was used to collect information. It began with structured interviews where the main emphasis was to discover edges within the five dimensions of the project. Structured interviews are characterized by having a guide of questions that serve as the basis of the conversation with the interlocutors (Marvasti, 2003; Seidman, 2006; Wimmer & Dominick, 2011). Although questions were created for the five dimensions, the questions were also asked based on the themes mentioned by the interlocutors. Therefore, the questions in the guide served as the basis of the conversation, but priority was given to following up on the themes that emerged at the time. The interviews were carried out with the bilingual primary school teachers and the Seri language community specialists. The latter was made via video call on the ZOOM platform and to the director of the bilingual primary school. The bilingual primary school teachers were interviewed on the school premises during the first visit. On that same visit, a teenager and four children were interviewed.

On the second visit to Punta Chueca, Sonora, a multiple-choice, survey-type questionnaire was applied to a bilingual elementary school teacher, the *telesecundaria* teachers, the *telebachillerato* teachers and the Seri language community specialists. The same questionnaire was applied to the girls, boys, and adolescents' students from the different schools on the site. The questionnaire is a tool used to provide a greater scope of responses to the given population. Unlike interviews, survey results can be generalized to the studied population (Belnaves & Caputi, 2001; Lawrence, 2006; Wimmer & Dominick, 2011). The dimensions of the interview question guide and their answers served as a basis for operationalizing the questionnaire variables and creating the items.

---

[4] *Telesecundaria,* for its name in Spanish, is a junior high school where instructions are mediated by television. It was its original purpose though nowadays there are nuances among schools and technologies adopted.

5 *Telebachillerato*, for its name in Spanish, is a high school that has a similar instruction-type like the *telesecundaria*, but in a different school degree.

This information was complemented with field observations (Shaughnessy, Zechmeister, & Zechmeister, 2011; Wimmer & Dominick, 2011) on-site through two visits to the work dynamics within the study classrooms of the different grade schools: elementary, junior high school, and high school and within the Seri language school classroom. There, access to the Internet, the speed of the connection service they have, the ability of specific population profiles to use electronic and digital devices, and their knowledge regarding the applications of cell phones and computer programs were evident.

Non-probabilistic convenience and snowball sampling (Seidman, 2006; Wimmer & Dominick, 2011) were used for the interviews, and judgmental sampling and a census (Hernández, Fernández, & Baptista, 2006) were used in the case of the polls. Judgment sampling was applied to bilingual elementary school teachers and Seri language community specialists. This aims to speak with people who speak the language and face groups of Seri speakers. Although some teachers speak other languages at the bilingual elementary school in Punta Chueca, the four who were approached are Seri language speakers, except for the director, who had previously given us an interview. To reach the two elementary school's teachers, snowball sampling was used. In this sample, the interlocutor is asked at the end of the interview if he or she can recommend someone to conduct the following interview. The principal referred us to another teacher until we reached two elementary school teachers. The teachers at the Seri language school were selected out of convenience because they interact directly with the students.

A census was used to administer the surveys for 5th and 6th grade students. The rest of the students were discarded due to difficulties attending with younger girls and boys to answer the questionnaire. The census was used to apply the survey to all students in *telesecundaria* and *telebachillerato* schools without distinction.

Although the population of Seri speakers is small: 723 individuals (Cuentame INEGI, 2022), the sampling selection was made based on the topic and purposes of the project: holding intercultural writing and digital editing workshops for girls, boys, and adolescents. Therefore, it was decided in principle to approach the Seri language community specialists through convenience sampling to hold conversations in the form of structured interviews because academic instruction is received through them, and they are the ones who have the most knowledge regarding the thematic contents of their courses. The teachers, too, are speakers of the

Seri language from Punta Chueca, Sonora, where the largest population of speakers of this language lives[6]. In parallel, a conversation was held with the bilingual elementary school director[7], who told us about his vision and work practices. From this conversation, the Snowball sampling arose naturally, as the school director contacted us with some elementary school teachers who were Seri Language speakers. From the first visit[8], it was determined to get closer to the place's girls, boys, and adolescents. They were facilitated by the Seri Language Community Specialists, who participated in the interviews at the beginning.

The second visit[9] was planned to collect information quantitatively because, by that time, the school year in the local schools had already begun. Therefore, it worked in parallel between applying qualitative techniques, field observation and structured interviews or conversations, and a quantitative questionnaire, the survey-type questionnaire. In the latter, the selection criterion, the census, was made based on the institutions that serve the population of girls, boys and adolescents who are part of our population. Since Punta Chueca is a small place, the best thing was to find most individuals with the said profile in the same place through the schools these students attend: elementary, *telesecundaria* and *telebachillerato*. Schools from which the students at the Seri language school[10] come.

There are seven interviews of around 60 minutes each (see Table 1): four with Seri language community specialists, two with bilingual elementary school teachers and one with their director. Six interviews are in WORD format, meaning 180 transcription sheets. Almost all interviews were done virtually through ZOOM, except for a few with the elementary school teachers. The two elementary school teachers were interviewed in person at school. The interviews with the Seri language community specialists and the bilingual elementary teachers mainly went smoothly. Only with a Seri language community specialist was there a technical problem when conducting the interview; due to the quality of the internet connection they have in Punta Chueca, the connection needed to be fixed. The conversation with her was interrupted

6 The other one with a considerable population of speakers is Desemboque de los Seris, Sonora. This town is three hours from Punta Chueca along a dirt road.
7 It is important to say that the elementary school director is not a Seri language speaker. He was assigned under the processes of the State Secretary of Education. The director at that time was originally from Hermosillo, Sonora.
8 It was done in Punta Chueca, Sonora, between June 6 and 10, 2022.
9 It was done in Punta Chueca, Sonora, between October 10 and 14, 2022.
10 It serves around 30 students: girls, boys and adolescents.

on at least one occasion. However, this specialist's participation in the interview left much information.

Table 1.- List of interviews

Interviews Codes	Type of interlocutor	Sex	Seri Speaker	Type of interview
EProfSeriJ	Seri Language Community Specialist in Punta Chueca	Female	Yes	On ZOOM
EProfSeriB	Seri Language Community Specialist in Punta Chueca	Female	Yes	On ZOOM
EProfSeriJu	Seri Language Community Specialist in Punta Chueca	Female	Yes	On ZOOM
EProfSeriD	Seri Language Community Specialist in Desemboque de los Seris	Female	Yes	On ZOOM
EProfPrimariaA	Bilingual Elementary School Teacher in Punta Chueca	Male	Yes	At the school
EProfPrimariaR	Bilingual Elementary School Teacher in Punta Chueca	Male	Yes	At the school
E_DirPrimaria	Director of the bilingual elementary school in Punta Chueca	Male	No	On ZOOM

Note. - Own elaboration.

On the other hand, there are 36 survey-type questionnaires answered by *telebachillerato* students, 25 from *telesecundaria*, and 22 questionnaires answered by girls, boys and adolescents from 5th and 6th grade of elementary school (see Table 2). The Seri language community specialists and those from the *telesecundaria* and *telebachillerato* also answered the questionnaire. Both directors were very accessible and flexible about it. The director of the *telebachillerato* school allowed us to apply the questionnaire to the students of her three grades, as did the director of the *telesecundaria*. While their students answered the questionnaire, their teachers also did so. We rely on Seri language community specialists to administer the questionnaire for elementary school students. Many students understood Seri better. Therefore, the teachers translated the questions and multiple options simultaneously for everyone. Some students were also supported individually to read and answer the questionnaire questions because some were learning to read in Spanish.

Table 2.- List of surveys based on the age profile

School	Type of interlocutor	# of surveys
Seri Language School	Seri Language Community Specialists	3
Telebachillerato	Director and teachers	3
Telebachillerato	Students	36
Telesecundaria	Director and teachers	2
Telesecundaria	Students	25
Bilingual Elementary School	Bilingual teachers	1
Bilingual Elementary School	Students	22
Total		92

Note. - Own elaboration.

Although some dimensions of interaction between students and digital technologies and their literacy were taken into account from previous studies (Miranda-Villanueva, 2018; Miranda-Villanueva, 2020; Rodríguez-de-Dios, Igartua, & González-Vázquez, 2016), the questionnaire and the conversations/interviews cover five dimensions for the intercultural writing and digital editing workshops of the project: 1 spaces and quality of connectivity, 2 basic computer knowledge, 3 management of technological tools, 4 management of editing software, and 5 transmission of media and digital knowledge. The local team helped operationalize the dimensions from their worldview and knowledge. The questions and items of the questionnaire for the interviews and the survey were practiced and exercised by the team members.

The quantitative measures were made within the same dimensions as the qualitative ones except for the knowledge transmission dimension. Because the latter is a susceptible topic and little information about it was shown in the qualitative evaluation, including it in the quantitative instrument was obvious. Another factor contributing to this decision was the pandemic since they had recently returned to in-person classes after a long period of confinement. So, even though the elementary school and *telesecundaria* have a computer laboratory, according to the elementary teachers, it is never used to transmit media or digital knowledge. Furthermore, as seen in some of the figures or tables of these measures, teachers and students usually use self-learning through Internet tutorials.

Results

Although the qualitative and quantitative analyses of the media and digital knowledge of students, teachers, and Seri language community specialists were done based on the abovementioned pre-established dimensions, the research question leading this study is

orientated to identify what knowledge the Seri speakers have about digital media. In that sense, what a) access, b) use, c) mastery, and d) willingness do they have for digital media? Within the following lines, the research questions are answered accordingly.

a) Access of Seri language speakers to digital media

All of them indicated that they have access to an internet connection. 71% (N= 65) of those surveyed indicate that the place they use most to connect in Punta Chueca is their home, followed by 35% (N= 32) in the house of an acquaintance, and 12% (N= 11) at school. Notably, 7% (N= 6) indicate that the park, kiosk, and outside the clinic are also places they go. Except for one person, all indicated having access to at least one electronic device. 93% (N= 86) say they have access to a cell phone or smartphone, 15% (N= 14) to video games, and 14% (N= 13) to screens or intelligent television. A considerable proportion of 12% (N= 11) say they have access to a desktop computer, and 9% (N= 8) to a laptop or laptop computer.

b) Seri language speakers' use of digital media

A little more than half, 55%, consider themselves agile at writing or writing on electronic devices. When asked if they know the computer keyboard parts, 92% confirmed knowing about them. However, when asked to identify them, they identify the writing keys the most, 63% (N= 58). They mainly write in Spanish with the computer keyboard, 91% (N= 61), and in Seri, 58% (N= 39). One of the reasons they mention to explain this is that they have the skills to understand the Seri language but are limited in writing it under any circumstances. According to EProfPrimariaA, “they [students] prefer the Spanish language, they do it in audio, but not all… When it is facilitated, for example, in audio, it is easier than writing…”. Another identified reason is the absence of their Seri language in the keyboard settings on their electronic devices. EProfSeriD puts it this way: “To write in Seri, I am using the international English keyboard because it is easier than Spanish to find the letters, the accents, the umlauts, and that kind of thing.”

The proportion of people in Punta Chueca, Sonora, who said they use and have a blog profile is very similar: 41% and 61%, respectively. 27% publish personal or life information on their blog, 25% entertainment information, 8% sports information and in the same proportion, news from the Comcaác Nation. Although 77% use social networks to communicate with family

and friends, 75% Messenger and 69% WhatsApp; they mainly use it to communicate through text messages and a combination of audio and text, 58% and 29%, respectively. 88% of the messages sent on social networks are made in Spanish.

Regarding storage clouds, 91% say they identify them. 63% (N= 58) identify Google Drive, 26% (N= 24) One Drive and 5% Box (N= 5). However, 55% store their information on their mobile device or cell phone, 15% on their computer, and only 5% in a cloud. As EProfSeriD mentions, “yes, now, yes. Most of the time, when I work, when I write something, I just keep it there on the desktop, and if I finish the work, I transfer it to a memory, to an external memory.”

c) Image editing skills in interaction with digital media

Although most have used an editing program at some time, fewer acknowledge having knowledge of editing programs, and very few identify them. 71% say they have experience in digital image editing on a computer; However, only 67% say they know about image editing programs: 22% identify the program Canva, 13% know Snapseed, and 1% locate VSCO. 51% know how to de-brighten the image, 37% know how to adjust the image's exposure, and 35% know how to crop the image on the computer. 77% say they know how to edit images on social networks. Although teachers indicate editing images for work and entertainment, when students are included in this topic within mobile devices, 27% say they edit images for artistic purposes, and 15% do so to share with family and friends. 88% share edited images on digital platforms in general, but only 54% say they do so on social networks, followed by 18% who do so in instant messages and 12% who share in digital photo albums. Teachers are more satisfied when they spend less time editing their images, while students seem more satisfied with the more time they spend doing it.

d) Willingness to learn and use technology

The students indicate that they are informed about using and administering digital and media content through online and YouTube tutorials, which guide them to self-learning. 38% acquire knowledge of editing tutorial videos online, 15% from other people, family, and friends or self-taught. According to EProfSeriJ, “…well, I just followed the options in the editor or the editing

option, and then I was adding filters until I put black and white, and I liked it, and then I continued doing it."

Conclusions

At the beginning of the study, the idea was to evaluate the knowledge that Seri language speakers had about digital media. Although the purpose was ambitious from the beginning, the decisions to limit the topic and its dimensions were made based on the objective of the project: writing and digital editing intercultural workshops for the creation of teaching materials at CMIIQUE IITOM. Very soon it was realized that although these were needs exclusive to the project, they were not isolated from previous experiences associated with the topic (Prayaga, Rennie, Pechenkina and Hunter, 2017; Wilks, Wilson and Kinnane, 2017).

Like what Wilks, Wilson and Kinnane (2017) find, in the case of Seri language speakers, the community-based technical facilities in Punta Chueca, Sonora, called the Seri language school facilities, or the computer laboratories in the bilingual rural primary school at the *telesecundaria* and *telebachillerato* facilities[11], are important for the development of digital skills. Perhaps not to support guided online learning if it means virtual remote interventions with an instructor with more than three devices connected simultaneously because the satellite internet connection on site is weak and intermittent. The proportion of cell phones among both populations in the remote areas of Australia for the aforementioned study and the study in Punta Chueca, Sonora, seem very similar. Both have difficulty with cutting-edge technology, but they have a mobile phone.

Perhaps the big difference is in terms of infrastructure because while in Australia, access to prepaid internet services is enabled, in Punta Chueca, there is only satellite internet with exclusive access within the facilities of the institutions that pay for it, schools, hospitals, etc., and in homes. Unlike what educators, Indigenous and non-indigenous in Australia, think, the work team in Punta Chueca, Sonora, believes that Facebook as an educational platform to solidify the use of their language can be useful due to current and successful experiences in using the platform by Seri speakers in Punta Chueca and Desemboque de los Seris, Sonora. In these experiences, accounts have been found from inhabitants of both sites in which their users promote the culture of their community in their own language, Seri, and Spanish.

[11]The latter share the same property.

Wilks, Wilson, and Kinnane (2017) talk about something very important that, although it is not explicitly mentioned by the inhabitants of Punta Chueca, Sonora, it is demonstrated in the work exercises of the collective, and this refers to the work of individuals for the benefit of the community. Due to the individualistic learning process, it is difficult for the inhabitants to think that there is an immediate benefit from using digital tools in their language, Seri, in the short term. However, it is also true that in the case of Punta Chueca, digital media is a constant that emanates naturally from the inhabitants. Relationships of trust between the educator and the students, as identified by these authors in their study in Australia, are important. This coincides with what one of the Seri language community specialists mentions in some of the conversations in relation to the fact that for the inhabitants to have a better involvement in the teaching-learning process, it is important that they not only receive online instructions but also that educators assist in serving students in community classrooms.

Although the present study is not strictly oriented like that of Prayaga, Rennie, Pechenkina, & Hunter (2017) to the analysis of the dimension of the Internet and its use by indigenous students, it does immediately break with the premise of the absence of knowledge and little access by this population profile in different places. Perhaps the great distinction, as mentioned in the case of Wilks, Wilson, and Kinnane (2017), is that in Punta Chueca the satellite internet. Unlike the Indigenous students in the study by Prayaga, Rennie, Pechenkina, & Hunter (2017), who have access to the internet through prepaid service mostly at home and at work and to a lesser extent at the local library and in the community center, in the case of Indigenous students and teachers in Punta Chueca, the majority of homes have limited satellite internet, and on the street, they seek to connect through the internet network of the health center or elementary school, *telesecundaria* and *telebachillerato,* when approaching its facilities.

References

Belnaves, M., & Caputi, P. (2001). Introduction to Quantitative Research Methods. An investigative approach. London, UK: Sage.

Bergman, M. (2011). The Good, The Bad, and the Ugly in Mixed Methods Research and Design. Journal of Mixed Methods Research, 5(4), 271-275.

Condeza Dall'Orso, R., Gálvez Johnson, M., Herrada Hidalgo, N., & Fernández Medina, F. (2021). 33 Media Education Challenges in a Digital Society. The Case of Chile. In D. Frau-Meigs, S. Kotilainen, M. Pathak-Shelat, M. Hoechsmann, & S. Poyntz, The Handbook of Media Education Research (pp. 355-362). NJ, USA: Wiley Blackwell.

Cuentame INEGI. (04 de November de 2022). Cuentame. Obtenido de INEGI: https://cuentame.inegi.org.mx/población/lindigena.aspx

de Block, L., & Buckingham, D. (2007). Global Children, Global Media. Migration, Media and Childhood. New York: PALGRAVE MACMILLAN.

DeWaard, H., & Hoechsmann, M. (2021). 34 Landscape and Terrain of Digital Literacy Policy and Practice. Canada in the Twenty-First Century. In D. Frau-Meigs, S. Kotilainen, M. Pathak-Shelat, M. Hoechsmann, & S. Poyntz, The Handbook of Media Education Research (pp. 363-371). NJ, USA: Wiley Blackwell.

Doherty, C. (2002). Extending Horizons: Critical Technological Literacy for Urban Aboriginal Students. Journal of Adolescent & Adult Literacy, 46(1), 50-59.

Hernández, R., Fernandez, C., & Baptista, P. (2006). Metodología de la investigación. México: Mc Graw Hill.

Johnson, G. (2016). Technology use among Indigenous adolescents in remote regions of Australia. International Journal of Adolescence and Youth, 21(2), 218-231.

Johnson, G., & Oliver, R. (n.d.). Small Screen Technology Use among Indigenous Boarding School Adolescents from Remote Regions of Western Australia. Perth, Western, Australia.

Lawrence, W. (2006). Social Research Methods. Boston, US: Pearson Education.

Li, K., Zahiri, M., & Jumaat, N. (2020). Understanding Digital Media Literacy in a Digital Age: A Review of Current Frameworks. International Journal of Psychosocial Rehabilitation, 24(5), 1010-1015.

Lopez, A. (2021). 36 Expanding Ethics to the Environment with Ecomedia Literacy. In D. Frau-Meigs, S. Kotilainen, M. Pathak-Shelat, M. Hoechsmann, & S. Poyntz, The Handbook of Media Education Research (pp. 383-397). NJ. USA: Wiley Blackwell.

Madison, E. (2021). 41 Activating Student Voice and Choice Globally. Reframing Negative Narratives in Ghana. In D. Frau-Meigs, S. Kotilainen, M. Pathak-Shelat, M. Hoechsmann, & S. Poyntz, The Handbook of Media Education Research (pp. 449-457). NJ, USA: Wiley Blackwell.

Marvasti, A. (2003). Qualitative Research in Sociology. London: Sage Publications.

Prayaga, P., Rennie, E., Pechenkina, E., & Hunter, A. (2017). Digital Literacy and Other Factors Influencing the Success of Online Courses in Remote Indigenous Communities. In J. Frawley, S. Laskin, & J. Smith, Indigenous Pathways, Transitions and Participation in Higher Education. From Policy to Practice (pp. 189-210). Singapore: Springer Open.

Samuel-Azran, T. (2012). The Mobile Phone and Indigenous Teens: A Comparative Analysis of Bedouin and Tel-Aviv Teens. Journal of Intercultural Communication Research, 41(2), 153-171.

Seidman, I. (2006). Interviewing as Qualitative Research. New York: Teachers College Press.

Shaughnessy, J., Zechmeister, E., & Zechmeister, J. (2011). Research Methods in Psychology. New York, USA: McGraw-Hill.

Uzuegbunam, C. (2021). 7 Toward Hybridized and Glocalized Youth Identities in Africa. Revisiting Old Concerns and Reimagining New Possibilities for Media Education. In D.

Frau-Meigs, S. Kotilainen, M. Pathak-Shelat, M. Hoechsmann, & S. Poyntz, The Handbook of Media Education Research (pp. 97-104). NJ, USA: Wiley Blackwell.

Wilks, J., Wilson, K., & Kinnane, S. (2017). Chapter 13 Promoting Engagement and Success at University Through Strengthening the Online Learning Experiences of Indigenous Students Living and Studying in Remote Communities. In J. Frawley, S. Larkin & J. Smith, Indigenous Pathways, Transitions and Participation in Higher Education. From Policy to Practice (pp. 211-233). Singapore: Springer Open.

Wimmer, R., & Dominick, J. (2011). Mass Media Research. Australia: Wadsworth Cengage Learning.