

## **The distribution of articles in three Otomanguean languages**

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### **1. Introduction**

- The aim of this talk is to analyze the semantic, syntactic and morphological distribution of the article.
- This study consider three languages of the Otomanguean family (Mexico): Mazatec (MHJ), Mazahua (MSP) and Amuzgo (ASP).
- In the Mexican educational system, the big challenge involves teaching and learning processes in these languages.
- The importance of this work lies in the contribution of the grammatical description of the Otomanguean languages and the typology revision on the system of articles and the expression of the definiteness.

#### **1.1 Sketch**

In this paper we are focusing on

- i) Reviewing the status of the articles in these languages.
- ii) Identifying the behavior of these articles from the perspective of the definiteness.
- iii) Identifying the challenges of writing grammar.

Syntactic, semantic and morphological features, as

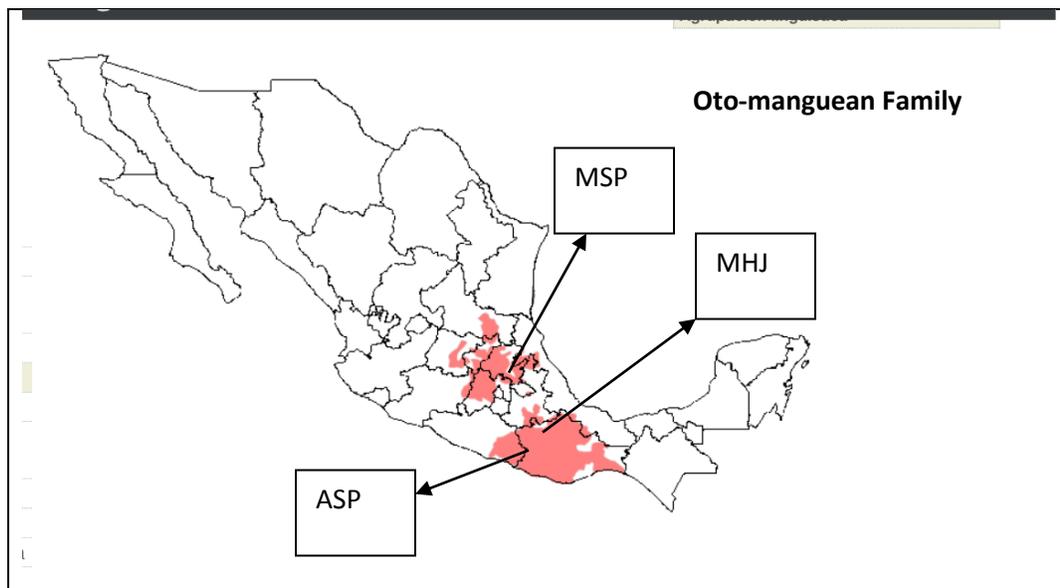
- Grammatical items (articles, demonstratives, pronouns, classifiers)
- Morphemes (bounded, free, zero)
- Co-occurrence
- Noun phrase
- Distribution (pre and post nominal)
- Definiteness (definite, indefinite)
- Specificity
- Deixis
- Others (familiarity, number, agreement)

## 1.2 General languages features

### a) Otomanguean family

The Otomanguean family is the one that integrates the largest number of speakers of indigenous languages in Mexico; it is concentrated in regions of the center and the south of the country. It is composed of a wide group of languages with different degrees of internal diversity.

Regarding its linguistic classification, according to Campbell (1996), it is divided into two main branches, the East and the West, which, in turn, are subdivided into two groups: the Otopame-Chinantecano and the Tlapaneco-Manguetano, on one hand, and the Popolocano-Zapotecan and the Amuzgo-Mixtecan, on the other.



### b) Linguistic varieties

The Amuzgo (Amuzgo) is spoken in two communities, Xochistlahuaca in Guerrero and San Pedro Amuzgos in Oaxaca; the data of this study belongs to San Pedro Amuzgos (ASP).

The Mazahua (Otopame) is spoken in the State of Mexico and Michoacán. The study variant of this work belongs to the community of San Pedro Potla, State of Mexico (MSP).

The Mazatec (Popolocan) is spoken in the north of Oaxaca, in the states of Puebla and Veracruz. The linguistic variety of this work belongs to the community of Huautla de Jiménez that has the highest number of speakers (MHJ).

### c) Grammatical features

- Tonal languages<sup>1</sup>
- Head marking
- Initial verb
- Verbal morphophonemics complexity
- Nominative accusative system
- Slipt intransitivity

### d) Grammatical studies

- The Amuzgo does not have many linguistic studies: a couple of grammars, one per variant, (Buck 2000 and 2018), as well as a couple of dictionaries, both of the San Pedro variant (Stewart and Stewart 2000, Tapia 2006); some studies for phonology (Smith-Stark and Tapia 1984, Williams 2005, Kim 2011 and 2016, Cortés 2016) and some more for syntax (Smith-Stark and Tapia 2002, Apostle 2014). However, in these works there is no reference to an article that marks definiteness.
- The same happens with the Mazahua, there are some grammatical studies (Stewart 1966, Knapp 2013), however it is necessary to make a review of certain categories such as the article.
- The Mazatec has a couple of grammars, one for the Chiquihuitlan (Jamieson 1989) and another for the Mazatlán de Villa Flores (Carrera Guzmán 2011), however, the description for the article category is incipient.

## 1.3 Data

The research data comes from talks and traditional stories, which refer to life stories, as well as everyday life in the community. On average, the duration of these collections is 15 minutes, which is equivalent to approximately 5 pages of transcription.

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<sup>1</sup>The representation of the tones of the languages of the world is not unique; there is not a single way to transcribe them. In this work the system of marking the tones by means of numerical supra-indexes is taken up, in Amuzgo 1 indicates a low tone, 3 indicates a medium tone and 5 a high tone, while in Mazatec 1 indicates a low tone, 2 a medium one, and 3 a high tone. The combination of these tones generate ascending or descending tones.

## 2. Articles systems

### 2.1 Amuzgo

- Marking of definiteness

1 a.  $\emptyset$ -tyen-an<sup>34</sup>    besana    n-dja-an<sup>34</sup>     $\emptyset$ -tso<sup>3</sup>  
PST-go-3.PL.RESP    nothing.else    PST-fight-3.PL.RESP    PST-say  
tyosu=u'  
rabbit=ART.DEF.SG  
'they were to fight, answered the rabbit' (Txt.Fox)

b. u<sup>34</sup>=n<sup>3</sup>-jo<sup>34</sup>     $\emptyset$ -yon<sup>34</sup>    sku<sup>12</sup>    tyondye=e'  
2PRON=PRS-come.1SG    PRS-bring.2SG    wife    fox=ART.DEF.SG  
'you stole the fox's wife' (Txt.Fox)

c. kwi=t'i<sup>12</sup>=tyondye     $\emptyset$ -ts'a    sian    jndë<sup>12</sup>    tyu'a  
ART.INDEF=partner=fox    PRS-do    work    field    early  
'a fox works early in the field' (Txt.Fox)

- Definite and indefinite

2 Tyo<sup>3</sup>ndye<sup>35</sup>=e<sup>1</sup>     $\emptyset$ -ntjo<sup>1</sup>    nkwe<sup>3</sup>    t-'ëo<sup>3</sup>    nkwe<sup>3</sup>    ti<sup>1</sup>  
fox=ART.DEF.SG    CPL-be    again    CPL-cry    again    friend  
'The fox was sad again' {Narración: La esposa del zorro}

3 T-we<sup>3</sup>    **nkwi**<sup>3</sup>    xue<sup>12</sup>    m'an<sup>3</sup>    **kwi**<sup>3</sup>    ti<sup>12</sup>=tyo<sup>3</sup>ndye<sup>35</sup>  
CPL-there.is    **one**    day    HAB.be    **one**    friend=fox  
'Once upon a time a fox' {Narración: La esposa del zorro}

- Demonstratives

4 A=ju<sup>5</sup>=nda<sup>5</sup>tio<sup>31</sup>=**ba**<sup>5</sup>    ma<sup>3</sup>-u'a<sup>34</sup>  
INT=ART.DEF=water=DEM.SG    PROG.SG-drink.2SG  
'Do you drink this water?' {Narración: La esposa del zorro}

- Definite mark

5  $\emptyset$ -tyen-an<sup>34</sup>    besana    n-dja-an<sup>34</sup>     $\emptyset$ -tso<sup>3</sup>    **tyosu=u'**  
PST-go-3.PL.RESP    nothing.else    PST-fight-3.PL.RESP    PST-tell    **rabbit=ART.DEF.SG**  
'they just went to fight, the rabbit said' {Narración: La esposa del zorro}

6  $\emptyset$ -tso<sup>35</sup>    ki<sup>5</sup>-tsian<sup>35</sup>=**an**'  
CPL-tell[3SG]    CL.ANIM-tiger=ART.DEF.SG  
'the tiger said' {Narración: La esposa del zorro}

- Pronominal clitic

7 u<sup>34</sup>=n<sup>3</sup>-jo<sup>34</sup>     $\emptyset$ -yon<sup>34</sup>    sku<sup>12</sup>    tyondye=e'  
2PRON=PRS-come.1SG    PRS-bring.2SG    **wife**    **fox=ART.DEF.SG**  
'you stole the fox's wife' {Narración: La esposa del zorro}

8 no' t'aa=bi ø-baka-jon<sup>53</sup> yo hu<sup>5</sup>=xjo na  
 and NEG=INT PRS-go.walking-3.SG.RESP with ART.ENF=metal PREP  
 'He doesn't walk with the metal device'  
 nink'e xe=e' nanain beyo hu<sup>5</sup>=ts'onchio ø-ba.ka-jon<sup>53</sup>  
 four leg=ART.DEF.SG now nothing.else ART.ENF=rod PRS-go.walking-3.SG.RESP  
 'now he only walks with the cane' {Narración: La abuela nahuala}

- Nominal classifier

9 jo<sup>34</sup> j-nia<sup>5</sup> ki<sup>5</sup>-tzian no' t-je<sup>5</sup> jndë<sup>12</sup>  
 LOC PST-see.1SG C1-tiger and PST-go.1SG hill  
 'there I saw the tiger, and I went to the hill' {Narración: Vi a un tigre}

10 ki<sup>3</sup>-so<sup>3</sup>ndye<sup>35</sup>=e<sup>1</sup> nein<sup>1</sup> ø-jo<sup>35</sup>ki'o<sup>35</sup>=an<sup>3</sup> t-ja<sup>3</sup>=ro<sup>1</sup>  
 CL.ANIM-cow=DEF.SG today FUT-go.for.1SG=3OBJ CPL-go=INT  
 ki<sup>3</sup>-so<sup>3</sup>ndye<sup>35</sup>=e<sup>1</sup> t-je<sup>1</sup>  
 CL.ANIM-cow=DEF.SG CPL-arrive  
 'The cow left, I went for it, the cow came back'

- Postverbal nominals

11a kwi=t'i<sup>12</sup>=tyondye ø-ts'a sian jndë<sup>12</sup> tyu'a  
 ART.INDEF=friend=zorro PRS-do work hill early  
 'a fox worked on the hill early' {Narración: La esposa del zorro}

b hu<sup>5</sup>=tsia ma-tsa<sup>5</sup> nanen ya<sup>12</sup>jndë=je jo<sup>12</sup> n-nocho<sup>5</sup>=o<sup>31</sup>  
 ART.ENF=work PRS-do.1SG now after=PTL then FUT-bring.1SG=3OBJ  
 'that's the work I do now, then I bring it'  
 yo xjo  
 with car  
 'with the car' {Narración: Vi a un tigre}

c t-'ue<sup>1</sup>-o<sup>1</sup> n-due=ntje-o<sup>1</sup> jndë t-y'e-o<sup>1</sup>.  
 PST-hold-3PL.ANIM PL-hand=3.RECIP-3.PL.POS.ANIM after PST-go-3.PL.ANIM.  
 'They shook their and then they left' {Narración: El tigre y el cangrejo}

In summary, in Amuzgo there are several strategies related to the definiteness, among them, a mark that it is called definite article.

## 2.2 Mazahua

- Two sets of articles

12 a. mù=rà=tõnho nù=ts'í-ns'í k'í=Ø=òòòì a=fes'e  
 when=3FUT=sing ART.REC=DIM-bird SUB=3PRS=stand.up LOC=up  
 'When the bird, that normally steps up, would sing' (Txt.al.11)

b. mbò Ø-ndìnrĩ k'í=p<sup>h</sup>unto mí-<sup>2</sup>jôo=ni  
 then 3.PST-say ART.DEF=dead 1POS-father=RPT  
 'when my deceased father said' (Txt.pt.11)

c. mbò Ø=ndèβε k'ínu fĩsk<sup>w</sup>ama=k'i mì=pès'i ángeze  
 then 3PST=drop ART.DEF paper=SUB 3COP=keep PRON3  
 'then the piece of paper he kept fall down' (Txt.sp.12)

d. fò=ndè=Ø=ts'ót'i=k'i; Ø=ndà-ts'ót'i jò=pàle=k'o  
 also=half=3PST=lock=DEM.PROX2 3PST=all-lock ARTPL=grandfather=DEMPL.PROX2  
 'Also someone locked him, someone locked those grandparents' (Txt.pt.11)

- Nouns without articles and demonstratives

13 a. nù=ndòpàri Ø=sàʔa ndǒra  
 ART.INES=vulture 3.PRS=eat peach  
 'The vulture eats the peaches.' (txt.nar)

b. \*bèzo Ø=hà-mbã jó=ńífti=hi  
 man 3.PRS=look at-3.DAT ART.PL.NANF.3.POS=hair=PL  
 'Man looks at his hair.' (elcd.ord)

c. yú=sátã síβi k'à=ηgùmi  
 3.PST=burn fire LOC=house  
 'The fire burned the house.' (txt.diag)

d. \*záp<sup>h</sup>adī ró=pènŋ'i mí-ndzǒʔə  
 grass 1.PST=grab TADV-yesterday  
 'I grabbed the grass yesterday.' (elcd.ord)

- Bound and free forms

Table 1. Mazahua articles

ART	SG	PL
IND.INESP	nà=	nù <sup>h</sup> jó
IND.ESP	k'ìnà	
DEF.NANF	nù=	jò=
DEF.ANF	k'ì=	k'ò=
	k'ínù	k'ònù

- Definite article (non-specific/specific)

14 a. anǵèze yú-sàʔa nà=p'èndzehe  
 3.PRON 3.PST-eat ART.INES=guava  
 'She ate a guava.' (elcd.lxc)

b. mì=?jènhe k'ìnà ?jòβε, mbe ó=βèzi  
 3.COP=have ART.ESP sister but 3.PST=get lost  
 'He had a sister, but he got lost.' (txt.m.15)

- Non-anaphoric articles

15 a. mù=rà=tǔnho nù=ts'í-ns'í k'ì=Ø=ḃòḃi à=fés'e  
 when=3.FUT=sing ART.NANF=DIM-bird SUB=3.PRS=stand LOC=up  
 'when will sing the bird that is standing up.' (txt.al.11)

b. Ø=pò=hi jò=ḃê<sup>h</sup>na o jò=ḃêzo  
 3.PRS=go=PL ART.PL.NANF=lady CONJ ART.PL.NANF=gentleman  
 'The ladies or gentlemen go.' (txt.p.14)

- Anaphoric articles

16 a. mbò Ø-ndĩnrĩ k'ì=p<sup>h</sup>unto mí-<sup>?</sup>jòo=ni  
 then 3.PST-ansere ART.ANF=deceased 1.POS-father=RPT  
 'Then my father's deceased answered.' (Txt.pt.11)

b. Ø=fɪ-tsi mì-ní?i: Ø=fɪ-tsi à-k<sup>h</sup>ánu: <sup>?</sup>já=rì=p<sup>h</sup>át'i  
 3.PST=tell-1.DAT 1.POS-mother 3PST=tell-1.DAT MOD-like this NEG=2.PRS=throw  
**k'ò=ndòpari**  
 ART.PL.ANF=vulture  
 'My mom told me: she told me this way: you do not throw the vultures.' (txt.r.12)

17 a. mbò Ø=ndèḃe k'ìnu fɪsk<sup>w</sup>ama=k'ì mì=pès'i ángeze  
 luego 3.PST=drop ART.ANF paper=SUB 3COP=keep 3PRON  
 'Then the paper that he kept, it dropped.' (txt.sp.12)

b. ηgè=k'ò ró=pārã à-k<sup>h</sup>á-<sup>?</sup>ja-nun k'ò=hè=mì=k<sup>h</sup>ãa k'òjò tée  
 ser=SUB 1.PST=know LOC=like this-PTL-like this REL=LOC=3COP=do ART.PL.ANF people  
 mà=n'ék<sup>wh</sup>a=<sup>?</sup>ja=k'ò  
 DIR=here=PTL=DEM.PL.PROX2  
 'This is what I knew, what people were doing around here.' (txt.4.12)

- Plural marks

18 a. è-maría Ø=nòma t<sup>h</sup>ú<sup>h</sup>ni=**hi**  
 NP-María 3.PRS=move bank=PL  
 'María moves the banks.' (txt.diag)

b. nùtsk'ɔ rí=ʔòri jò=fayɔ  
 1.PRON. 1.PST=order ART.PL.NANF=soap  
 'I ordered the soaps.' (elcd.tam)

c. rá=ʔóki jò=s'ǎna=**hi**  
 1.FUT=cut ART.NANF.PL=avocado=PL  
 'I'll cut the avocados.' (elcd.tam)

19 a. nù<sup>h</sup>jó j'óʔo=jò Ø=p<sup>h</sup>òri ín-ʧǒʔǒ  
 DEM.PL.PROX1 dog=DEM.PL.PROX1 3.PRS-wath 1.POS-corn  
 'These dogs watch over my milpa.' (txt.diag)

b. nù=t'íi yú-sát'ã jò=féj'i=jò  
 ART.NANF=boy 3.PST-burn ART.PL.NANF-tortilla=DEM.PL.PROX1  
 'The boy burned these tortillas.' (txt. las tortillas)

c. è-péyro yú-pòʔo=hi téfe nù=baya=nú  
 NP-pedro 3.PST-sell=PL todo ART.NANF=cow=DEM.PROX1  
 'Pedro sold all these cows.' (elcd.cuant)

d. \*nù=t'íi yú-sát'ã jò=féj'i=jò=hi  
 ART.NANF=niño 3.PST-quemar DEM.PL.NANF-tortilla=DEM.PL.PROX1=PL  
 'El niño quemó esas tortillas.' (txt. las tortillas)

- Articles co-appear with demonstratives

20 a. nù=ngôni yú-pik'i nù=ʔôʔô=nù yà=mànu  
 ART.NANF=chicken 3.PST-peck DEM.NANF=cob=DEM.PROX1 LOC=over there.PROX1  
 'The chicken pecked that cob from there.'

b. nù=fita ròmualdo, já=Ø=ndũũ nù=ùfua=?ja=k'i  
 ART.NANF=old Romualdo PTL=3.PST=die ART.NANF=demon=PTL=DEM.PROX2  
 'The old Romualdo already died that demon.' (Txt.sr.13)

In summary, an indefinite set of articles encodes a specific and non-specific sense of reference; the other ones, express an anaphoric and non-anaphoric sense. The demonstratives encode two degrees of proximity, proximal and distal.

### 2.3 Mazatec

- Definite article (anaphoric/non-anaphoric)

21 a. sa kisin chingàna  
 sa<sup>2</sup> ki<sup>2</sup>-sĩ<sup>2</sup> ʔi<sup>1</sup>ŋga<sup>1</sup>=na<sup>1</sup>  
 just COMPL.LEJ-be.born.3 pig=1SG  
 'My pigs were born'

b. jé chingà xì je kji kiě  
 he<sup>3</sup> ʔi<sup>1</sup>ŋga<sup>1</sup> ʃi<sup>1</sup> he<sup>2</sup> khi<sup>2</sup> ki-e<sup>24</sup>  
 DEF.ART pig REL big COP.SG COMPL.LEJ-die.3  
 'The pig that is big died'

c. hé chon nkji nàchò yà'  
 he<sup>3</sup> ʔô<sup>2</sup> nkhi<sup>2</sup> na<sup>1</sup>ʔo<sup>1</sup> ja<sup>1</sup>  
 DEF.ART woman many pumpkins bring.3  
 'The woman brings many pumpkins'

- Specificity

22 a. na<sup>2</sup>hpo<sup>2</sup> tsɛ<sup>1</sup> ʔô<sup>1</sup> niq<sup>3</sup> hʃa<sup>3</sup> k<sup>h</sup>i<sup>3</sup>  
 clothes PREP woman INTEN old COP.SG  
 'the lady's clothes are very old' (Txt.13)

b. **he**<sup>3</sup> chjota xrin sinda choa+nkjain  
 DEF.ART people man make.3 container+face.3  
 ‘The gentlemen made their masks’ (Txt.16)

- Pronoun

23 a. jé kuíyǎ ngà kuichò nichǐ  
**he**<sup>3</sup> k<sup>w</sup>i<sup>21</sup>-ja<sup>23</sup> nga<sup>1</sup> k<sup>w</sup>i<sup>1</sup>-fo<sup>1</sup> ni<sup>1</sup>fi<sup>21</sup>  
 3.PRON IRR-die.3 SUB IRR-arrive.3 day  
 ‘He will die when the times comes’

b. jé kisinda najñole  
**he**<sup>3</sup> ki<sup>32</sup>-si<sup>2</sup>nda<sup>2</sup> na<sup>h2</sup>no<sup>2</sup>=le<sup>1</sup>  
 3.PRON COMPL.LEJ-sew ropa=3  
 ‘They made their clothes’

c. **he**<sup>3</sup> fo<sup>1</sup> fokhi ti<sup>3</sup>me:<sup>13</sup>  
 DEF.ART woman DEM.P get.sick.3  
 ‘This woman is sick’ (Txt.05)

- Article and demonstrative

24 a. kámáxkua jé ndsókò yamíxà  
 Ka<sup>3</sup>-ma<sup>3</sup>jk<sup>w</sup>a<sup>2</sup> **he**<sup>3</sup> ndzo<sup>3</sup>ko<sup>1</sup>ja<sup>2</sup>mi<sup>3</sup>fa<sup>1</sup>  
 COMPL.REC-break.3 DEF.ART foot.3 table  
 ‘The table leg broke’

b. ni xòkjì ni’ó mbá kji  
 ni<sup>2</sup> fo<sup>1</sup>k<sup>h</sup>i<sup>1</sup> ni<sup>3</sup> mba<sup>3</sup> khi<sup>2</sup>  
 man DEM.P.SG INTEN fat COP.SG  
 ‘This man is very fat’

c. kabakjǎn jé xòntjuà xòkjì  
 ka<sup>2</sup>-ba<sup>2</sup>k<sup>h</sup>ã<sup>34</sup> **he**<sup>3</sup> fon<sup>1</sup>t<sup>hw</sup>a<sup>1</sup> fo<sup>1</sup>k<sup>h</sup>i<sup>1</sup>  
 COMPL.REC-break.3 DEF.ART door DEM.P.SG  
 ‘This door is broken’

- Indefinite articles

25 a. A tíjna jngòlì taon?  
 tíjna **jngo**-li taon  
 have one-2SG coin  
 ‘Do you have a coin?’

b. tojngo nio tainai  
 to-**jngo** nio tai-na-i  
 only-one tortilla give-1SG-2SG  
 ‘Give me one tortilla’

In summary, this language codifies the definiteness and the specificity with the definite article, however, when the entities are familiar, this mark is not necessary. The definite

article can co-appear with the demonstratives. It shows, in Table 2, the demonstrative and articles paradigms.

Table 2: Articles and demonstratives

Articles	Demonstratives		
Definite: jé	SG	DEM.P	DEM.D
		xòkjì	xòkjìján
Indefinite: Jngò	PL	xokjuà	xokjuàján

### 3. Grammar writing

#### 3.1 General characteristics of articles

Table 3. General characteristics of articles

	Amuzgo	Mazatec	Mazahua
Article	+	-	+/-
Demonstrative	+	+	+
Pronoun	+	+	+
Classifier	+	-	-
zero mark	+	+	+
co-occurrence	-	+	+
morphs bounded/free	b/f	f	b/f
Noun phrase			
Definite/indefinite	d/in	d/in	d/in
Pre and post	po	pe	pe
Specific	+	+	-
Anaphora	-	+	+
Familiarity	-	+	+
Number	-	-	+
Agreement	-	-	-
numeral one like indefinite mark+		+	+

#### 3.2 Challenges

- Consider the definition of articles according to semantic, syntactic and morphological features.
- The semantic and syntactic features are not autonomous, they must co-occur in the description of the grammatical phenomenon; this would allow, for example, to include the classifiers and the demonstratives as a mark of definiteness.
- Compare grammatical processes in a linguistic family, allows to analyze changes and grammaticalization paths.
- It is necessary to link a reference grammar to a pedagogical one.
- These observations should be considered in the implementation of all grammatical features.

### 3.3 Final thoughts

- What is interesting about this work is to point out that within the Otomanguan family, and even in the same language, different mechanisms can be found to mark the article. Because the study is still at an early stage, the rules for using one or another strategy are not discussed in detail.
- The list of mechanisms used to provide readings of definiteness, which are associated with the articles (classifiers, zero, for example), do not reach the same degree of explanation in the languages worked, in part, obviously, because the language does not have the grammatical category, or, because the subject has not been analyzed.
- These languages do not have detailed and elementary studies for the creation of pedagogical and reference grammar, this idea forces to create more grammatical studies on these languages, adequate levels in Mexican education, and continue training for the teachers of indigenous languages, as well as a political public that allow the teaching of the language.

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