Article

Ethiopic Script Based Dime Orthography

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Abstract

The purpose of this orthography development is to empower mother tongue speakers to read and write their language using their own orthography. In Ethiopia two types of writing systems are being implemented (i.e. Ethiopic and Latin) for unwritten Languages. The development of Dime orthography consists of three parts; the first one is selecting the script, second designing script and the third one is developing the writing rules. Various social variables, such as urbanization, modernization, and the social and political upheavals affect and the country has gone through the dynamic of social and political changes. Due to pressures from dominant linguistic groups, minority languages have become socially, politically and linguistically marginalized. For instance, the Dime language due to historical conflict between Bodi and the influence of neighboring languages such as Ari, Basketo and the national working language Amharic it becomes endangered. Therefore, unless we develop the language using various means in a few years not only the languages as such face extinction, but also the indigenous knowledge and the cultural heritage tied to the language. Thus, Dime Orthography proposed here is to develop orthography for the hitherto unwritten language and as a tool for language preservation.

There are at least two possible options in establishing an alphabet for unwritten languages. The first is adopting symbols or letters from a language, which already has an alphabet (symbol) with many sound correspondences with the language under study. The second is creating a new alphabet (symbols). The latter option seems to be difficult as the symbols are newly created and are not familiar to both the linguist and the speaker of the language under investigation. Thus, it brings negative impact in the literacy program. The Ethiopic scripts found to be the best option due to its historical and family relations of sounds with Ethiopian languages.

1   Background of the Study

Ethiopia is the Land of origins. It is a home land of multi-lingual and multi-cultural society. The numbers of the languages spoken in the country need to be revisited. The exact number of languages in the country is not clearly known. However, based on different reports and studies that are conducted in the country the number of Languages spoken in the country is assumed to be more than eighteen. Various social variables, such as urbanization, modernization, and the social and political upheavals affect and the country has gone through the dynamic of social and political changes. Due to pressures from dominant linguistic groups, minority languages have become socially, politically and linguistically marginalized. Therefore, many languages in the country are falling out of use. As a result not only the languages as such face extinction, but also the indigenous knowledge and the cultural heritage tied to these languages. The main motive for Dime Orthography proposed here is to develop orthography for the hitherto unwritten language and as a tool for language preservation. This study is conducted in the area by the adoptive problem solving grant of the University. After the study is completed to make an orthography script decision by the community choice was challenged by the country turmoil situation in the area. In this paper from the academic perspective and the research outcomes we wants to suggest the Ethiopian script for the language writing scripts because it found to be more compatible with the Dime Phoneme comparing to Latin scripts. Later hoping that the community will be decided their own scripts further according to their interest. However, the orthography treated in this discussion is not an official orthography that has been approved by the local communities/Authorities. The researcher has been conducted this research in the area and communicated the language spoken community. The researcher previous work on Dime Grammar (Mulugeta 2008) is also the main supportive document in the process of the current Dime Orthography development. The researcher has been conducted many researches in the area. He published a Dime dictionary and many articles on the language until the recent year. This all research activities on the language a good prerequisites for the current study. The Dime People are interested to use the Ethiopic scripts. However, the recent year's political situation and due to the other political and foreign researcher influences it is not an easy job to be employed the Ethiopic scripts for Dime People. This orthography is discussed and presented here in its current form only for the purpose of initiating how the Ethiopian Scripts can work for any Ethiopian languages better than the Latin scripts. The researcher develops scripts using Ethiopian scripts for Maale one of the Omotic languages in the area which

has been approved by the Local communities and Authorities. There are also many Ethiopian languages that have been used Ethiopic scripts such as Saho, Kunama, Kebena, Basketo, Siliti, etc.

2   The Dime people and the Language

Dime is the name of the language and the people who speak the language. Linguistically this Language is classified under the North East sub-family in the omotic group (Bender 1976).
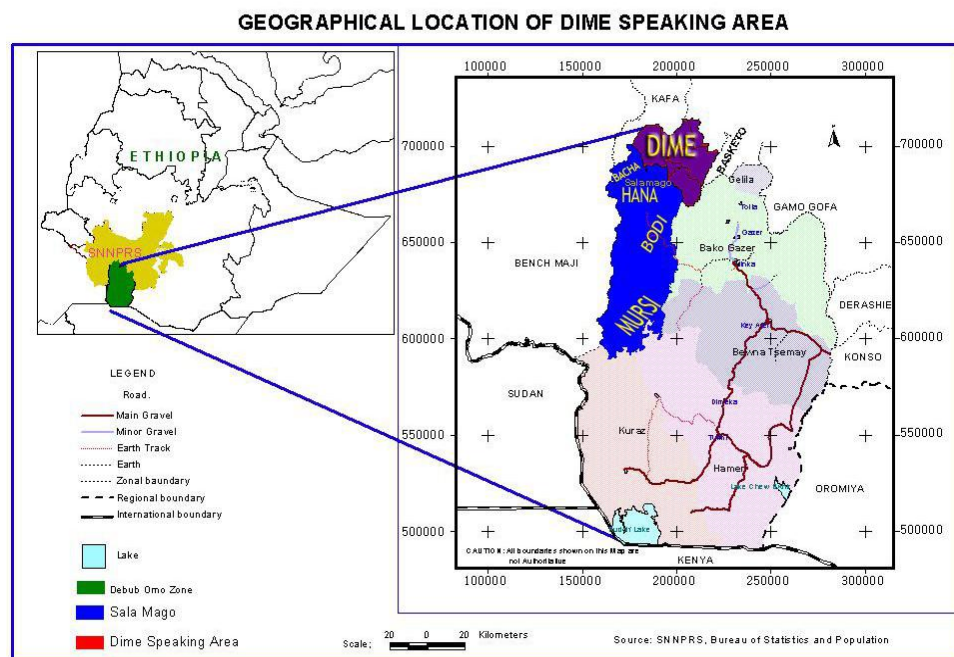
The Dime Language is spoken in south omo-zone specifically in the district of Sala-Mago. According to 1994 census the Dime constitute a population of 5,462 people. Surprisingly, the 2007 National Census reports that the population of Dime is 895. The language communities surrounding the Dime area are the Chara to the north (across the river Omo), the Basketto to the north-east and east, the Aari to the southeast, the Mursi and some Surma to the south-west, and Bodi (Me'en) to the west (Mulugeta 2016).

The Dime peoples are living in the high land area as a settler. The main Economic source of the Dime is agriculture. Their agriculture products are maiz, sorghum, teff, potato inset etc. They made their usual food bread and "Genfo" from maize, sorghum and teeff. They also prepared local beer which is called "tella" from Sorghum. To get additional income they also culture bees and domestic animals (Mulugeta 2008).

There is a dialectical difference within the Dime language. Since my informants can speak the language fluently and they have been lived in both areas, they provide me the following data that shows explicitly the existence of dialect differences.

According to the data that I have got from my informants, the two different dialects in Dime are garfa and us'aa. For instance, ʃakat 'stool' in Grafa dialect while goika dab 'stool' in Us'aa dielct.

The two dialects are mutually intelligible. This means the speakers can understand one another. In addition, most of the Dime people are bilingual and multilingual so that they can speak one or more other languages next to their mother tongue. They were governing themselves until the near past. There were a number of chiefs, who had political, economical and ritual functions. The Dime peoples are living a series of mountains ranges and surrounded by low land territory, with a total area of approximately 2,400 square miles (David Tod, in Phamplet no.43).

3　Some overviews towards the Phonological aspects of Dime

3.1　The consonants and vowels phoneme

Below the phonemes of Dime are identified and described. Moreover, some of the phonological processes, tone and syllable structure are treated. Note that s', t', tʃ', k', are glottalized consonants and ɓ and ɗ are voiced implosive. The speaker who are more exposed to Amharic language pronounce the implosive ɓ and ɗ as p' and t' respectively. Mulugeta (2008) has been analyzed that p' and t' as a phoneme of the language. However, in this study the researcher recognized that the informant type makes the sound pronunciation different. It seems that the younger generation due to the influence of Amharic they shifted the implosive sound to ejectives. Thus, in this study the researcher presents the implosive ɓ and ɗ as a phoneme of the language and avoid the sound p' and t' from the consonant chart to avoid over differentiation. Off course it needs further research to know the number of speaker that has been influenced by Amharic or vice versa. Here, we present the description of the consonants followed by the description of the vowels below:

Consonants

Table 1: Consonant Phonemes of Dime

		Bilabial	Alveolar	Alveo-palatal	Velar	Uvular	Glottal
Plosive	Vl	/p/	/t/		/k/		
	Vd	/b/	/d/		/g/		
	Ej				/k'/		/ʔ/
	imp	/ɓ/	/ɗ/				
Fricative	Vl	/f/	/s/	/ʃ/	/x/	/χ/	/h/
	Vd		/z/	/ʒ/	/x/	/ʁ/	
	Ej		/s'/				
Affricate	Vl		/ts/	/tʃ/			
	Vd			/dʒ/			
	Ej			/tʃ'/			
Nasal	Vd	/m/	/n/	/ɲ/	/ŋ/		
Liquids			/l/				
			/r/				
Glides		/w/		/y/			

3.1.1 Description of the consonant sounds

Mulugeta (2008:6) has discussed that Dime reflects a few unusual features compared to related languages (Bender 2000:160). Bender (1988) does not include /x, χ, ʁ, x/ among the frequent consonants of the Omotic language family. As it is pointed out the presence of these segments in the Dime language makes it somewhat different from the rest of Omotic. These segments appear in some Omotic languages only phonetically (cf. Wedekind (1990:73), for instance, the segments (V, X) are found phonetically in Yemsa. Ford (1990:430) reports that (X and ʁ) are found phonetically in Aari. Furthermore, the consonants (ž, w, y, and č) occur very rarely in other Omotic languages (Bender 1988). Fleming (1990:505) also reports no /p/ and /h/ in Dime and according to him the glides /w/ and /y/ are questionable. As of (Mulugeta 2008) in his data these sounds are frequently appeared. In addition to the implosive sound /ɓ/ is indentified which was missed in the previous study. All consonants except (ɓ, ts, dʒ, ʔ, ɗ, x, χ, x, ʁ, h, ŋ and r) occur as geminates.

The description of the consonant sounds of Dime will be presented below. We use the imperative verb form for each example since it is the simplest form. The order is based on the point of articulation of the consonants.

1.   p is a voiceless bilabial stop

  pólú 'swear', vow

  gómp 'back'

  dámpe 'tobacco'

  peʁe 'wood knife used to remove something'

  paaɗe 'a kind of muscles at the back of neck'

2.   b is a voiced bilabial stop

  bánde 'hair'

  k'ámub 'baɗ'

  kábbe 'maize'

3.   ɓ is a voiced bilabial implosive.

  ɓoɣs'u 'pimple'

  ɓoɣɗu 'forget

  ɓeʁ 'insect type'

  ɓaʁ 'small pot on goat neck'

  surɓu 'taste'

  suɓu 'squeez (sab adrig)'

4.   f is a voiceless, labio-dental fricative

  fíʃt 'cough'

  kalfé 'shoulder'

  dúf 'foam'

5.   m is a voiced bilabial nasal

  mítʃí 'sister'

  haamzé 'birth place'

  bindɨm 'nature'

6.   w is a voiced bilabial semi-vowel

      wunt'ú   'work'

      zəwdɨn   'put on'

      bow   'direction'

7.   t is a voiceless alveolar stop

      t'íʃt   'sneeze'

      gúntu   'rope'

      bíít   'magic, evil'

      gáit   'hoe'

8.   d is a voiced alveolar stop

      dəré   'goat'

      s'éidub   'short'

10.   ɗ is a voiced alveolar implosive[1]. It is a remarkable feature of Dime that the /ɗ/ after a nasal retains its implosive character.

      ɗíle   'medicine'

      ɓelχenɗ   'lightening

      ɗeeʃi   'shadow of man'

      gumɗum   'disease'

      ʃiɗim   'pregnancy'

11.   s is a voiceless alveolar fricative

      sinú   'this'

      ʔaχsé   'clay'

      ʔúis   'ask'

      túss   'pillar'

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[1] Mostly in word final position **ɗ** appears as an alternation of the ejective sound **t'** which seems to be a feature of the Aaroid group (Dime, Aari, Hamer) (Bender1988: 124) For example, **ʔúmint'** or **ʔúminɗ** 'arrow'. **ɗ** occurs word finally and medially only after nasal sounds. Especially the youngest Dime speakers who have been exposed to use Amharic use the ejective sounds rather than using the implosive one.

12.   z is a voiced alveolar fricative

        zúúlu   'rainbow'

        kúbzú'   'fly'

        koiz   'hen'

13.   s' is an alveolar ejective fricative. It is not attested word finally.

        s'éét   'hundred '

        k'ós'ú   'scratch'

        gas'e   'clitoris'

        seeki   'big'

14.   n is a voiced alveolar nasal

        núkú   'nose'

        ʔúrin   'rat'

15.   r is a voiced alveolar flap. The sound /r/ occurs both in word final and word medial

        position. It is recorded also in word initial position but this is not as frequently found

        as compared to medial and final positions. No geminate form is attested.

        rúú   'wealth'

        gərʒ   'cat'

        gofɨr   'frog'

16.   l is a voiced alveolar lateral approximant

        lále   'stone'

        kálfe   'shoulder'

        ʔíl   'hare'

17.   ʃ is a voiceless palatal fricative

        ʃááye   'sand'

        miʃít   'seed'

        tíʃʃ   'ripe crop'

18.   ʒ is a voiced palatal fricative

ʒómár   'ginger'

guuʒú   'drink'

tʃʼiʒʒ   'tuber'

19.   ts is a voiceless alveolar affricate. No geminate form is attested.

ʔitsé   'teeth'

níts   'boy'

zatse   'terrece'

20.   tʃ is an alveo-palatal affricate

tʃúú   'bottom'

batʃ   'year'

ʔiʃɨɲtʃi   'think'

gitʃtʃ-ó   'big'

21.   dʒ is a voiced palatal affricate. dʒ is not attested word finally and no examples with a

geminate dʒ is recorded

dʒáʁe   'throw'

ʔánkódʒáɣe 'arm'

dʒígi   'sew'

22.   tʃʼ is a palatal affricate ejective

tʃʼitʃʼ   'cloud'

gəʁtʃʼé   'chin'

23.   y is a voiced palatal glide

yəχnám 'farm'

yikáy   'not/none'

ʔiyyí   'person'

24.　　k is a voiceless velar stop

　　　kúbzú　'fly'

　　　ʔunkɨl　'chest'

　　　kuku 'difarrsa (wild animal) '

　　　lóokk　'speak'

25.　　*g is a voiced velar stop*

　　　gitʃtʃób　'big'

　　　məngé　'gourd

　　　lág　　'friend'

　　　lage　　'my friend'

　　　gongu　'food plate'

26.　　k' is a velar ejective stop. It is not attested word finally.

　　　k'ot'　　'velum'

　　　k'uk'ú　'taste'

　　　lək'k'ub　'small'

27.　　x is a voiceless velar fricative. It is not attested in word intial position.

　　　kóxmu　　'love'

　　　ʔórxú　　'fish'

　　　ʃóxʃú　　'cereals'

　　　ʃaxʃin　　'urine water during delivery'

　　　ʔéx　　'row'

　　　boxol　　'malt'

28.　　ɣ is a voiced velar fricative. It is not attested word initially and finally.

　　　gɔ́ɣó　　'inside'

　　　boɣɗu　　'forget'

　　　buɣu　　'sperm'

　　　ɓoɣs'u　　'pimple'

　　　lox　　'a kind of tree with bitter fruit'

29. χ is a voiceless uvular fricative. It is not attested word initially.

    yə́χsé 'measure/follow'

    yə́χenɗe   'sikita'

    yə́χenɗ   'farm'

    yə́rχe   'verify, purify'

    maχse   'blood'

    wɔ́χən   'cattle'

    laχ   'six'

30. ʁ is a voiced uvular fricative. It is not attested word initially and word finally.

    gəʁtʃʼé   'chin'

    laʁɗé   'die'

    ʔeʁsʼé   'neck.'

    dʒaʁ   'a kind of wood, which is strong against termine'

31. ŋ is a voiced velar nasal. It is not attested word initially.

    kíŋi   'spider'

    ʔééŋ   'high-land'

    tóŋas   'few'

32. ʔ is a glottal stop. The consonant ʔ often occurs at word initial position. There are no vowel initial words in Dime. Words that start with a vowel underlyingly, have a initial glottal stop phonetically.

    ʔórxú   'fish'

    ʔonk ʔokú   'finger'

    baʔa   'take'

    gaʔa   'chewed, to be chewed'

33. h is a voiceless glottal fricative.

    sʼááh   'vomit'

    háme   'home country'

    ʔéhé   'house'

3.1.2 Gemination

Gemination is phonemic in Dime. For instance, ʔime 'breast' contrasts with ʔimme 'give', and túmú 'deep water' with túmmú 'stomach'. However gemination is not very frequent in Dime. Consonant gemination is possible in intervocalic (medial) position and final position of words. Word initial gemination is not attested. In the following examples we provide further minimal pairs showing the phonemic status of consonant length.

35.   a.   *[l] vs [ll]*

           ʔólóχ   'quick'

           ʔóllóχ 'slowly'

    b.   *[n] vs [nn]*

           ʔáne   'hand'

           ʔánne 'wild fire'

           bit'e + i-n   binn

           leave+PF-3   'left'

The geminate nn in (35b) is formed due to the perfective and person marker suffix. The final consonant t' of the basic verb form changes to geminate nn after the suffixation of -i-n. Here we observe two points. The first one is the assimilation of t' to n and word final gemination and the second is internasal vowel deletion. More examples on word final gemination are given in (36).

36.   [gušš] 'find'

       [c'ížž] 'tuber'

As can be seen in the above examples in Dime gemination is phonologically significant.

3.1.3 Clusters of consonants

The maximum number of consonants in a cluster is two in Dime. When consonant clusters occur word medially, the first consonant of a cluster manifests the coda of the

preceding syllable, and the second consonant manifests the onset of the immediately following syllable. Furthermore, reduplication is a very frequent phenomenon in Dime.

3.2 Vowel phonemes

The following vowel phonemes are recorded for Dime.

Table 2: The vowel phonemes of Dime

	Front	Central	Back
Close	i	ɨ	u
Half-close	e	ʌ	o
Half-open	ɛ	a	ɔ
Open			

In addition to these vowel phonemes, there are also diphthongs.

The half-open vowels ɛ and ɔ tend to be more centralized than their corresponding half-close vowels (i.e., they are closer to schwa in the front/back dimension). Also, the vowels i, e, u, o, a tend to have the position of the tongue body slightly higher than the corresponding, ɨ, ɛ, ɔ and ə vowels. The latter vowels are always short and do not have length opposition. Moreover, they do not occur in an open syllable at the end of words. They need a following consonant.

3.2.1 Description of Dime vowels

The following are illustrative examples of vowels of Dime:

1   [i], close front vowel. Examples:

ʔitsí   'tooth'

yízí   'run'

2.   [ɨ], close central vowel. Examples:

ʔɨšínči   'remember'

ʔɨrfí   'moon'

3.   [e], Half-close front vowel. Examples:

báálé   'market'

deeχé   'cook'

4.   [ɛ], half open front vowel. Examples:

p'ɛ́lt'e   'testicles'

mɛh   'money'

5.   [a] open central vowel. Examples:

ʔáfé   'mouth'

wonná   'return'

6.   [ʌ] half-open central vowel. Examples:

bʌlté   'luck'

ɗʌl   'flour'

wɔʁʌn   'cattle'

7.   [o] half close back vowel. Examples:

potu   'fall'

kóxó   'love'

8.   [ɔ] half-open back vowel. Examples:

wɔʁən   'cattle'

kɔxu   'crow'

9.   [u] close back vowel. Examples:

kúlú   'stick'

ʔúrin   'rat'

   As Bender (1986:125) states, in Omotic languages a five vowel system is very common. However, in some Omotic languages including Dime, other vowelsexist. For instance, Dizi has a sixth vowel ʌ (Bender 1986), and Hamer has a set of 'lax' vowels (Lydall 1976) (see Mulugeta 2008). Furthermore, Biniyam and Moges (2015) discusess that Hamer has 10 vowel system. Alemgena (2018) and Moges (2007) pointed out that the Kara language has 10 vowel systems. Therefore, the pervious analysis of Omotic vowels that says five vowel systems disproved through time.

   Concerning vowel length Dime has a nine vowel system with the common five vowels i, e, u, o, a, two half-open vowels ɛ and ɔ, and two central vowels ɨ and ə. Among these, only five vowels: i, e, u, o, a have long counterparts.

3.3 Phonological process

In Dime there are a number of phonological processes. These are Spirantization such as /p, b / > [ɸ, β] / v- or -v , Distant voicing such as /ʔáɣ-af/ > [ʔáɣ-aβ] 'trees', Homorganic nasal assimilation as in /ʔíšinči/ > [ʔíšiňči] 'remember', Glottalization as in wuč'i 'drink' + déé 'IPF' > wuč'-t'één '(he) will drink', Truncation of glottal stop initial syllable as in ʔatí 'I' + ʔiind 'mother' > ʔaind 'my mother', Epenthesis as in wunt' 'work' + k'áy 'not' > wunt'-i-k'áy 'no work', Deletion as in /guuru-af/ > /guuraf/ 'crocodiles', and Glide insertion as in nú-y-éé 'he is' etc.

4 Orthography designing

As Robinson and Gadelii (2003:3) pointed out for many communities lack of a writing system considered to be as one factor of marginalization. This may be compounding with others factor such as:

> small population numbers, minority facing a majority, 'remote' location (from a metropolitan perspective), economically poor, low resource base, politically without voice, socially marginalized or stigmatized, little access to quality social services, such as education and healthcare. These realities may not be changed only by developing a writing system for a language but it may interact with other factors to increase opportunities, for instance: a greater chance of literacy, and so education and opportunities for economic development, increased access to the learning of additional languages, opportunity for cultural expression and wider communication of cultural values and particularities, increased cultural and linguistic self-confidence and thus greater security in one's own identity, appreciation by others of the unique richness of the language, the option to use the language in the electronic media.

As a result of all these fact developing a writing system for an unwritten language is perfectly feasible – such work has gone on for centuries. UNESCO is convinced that it is the right of every language community to use their own language in written form, if they so desire. This is because no language is "undeveloped" in the sense that it is less capable, in principle, than another of expressing whatever a speaker wants to communicate. All languages are complex in their own unique ways, and all are capable of allowing speakers to describe the world in which they live.

There are at least two possible options in establishing an alphabet for unwritten languages. The first is adopting symbols or letters from a language, which already has an alphabet (writing system) with many sound correspondences with the language under study. The second is creating a new alphabet (symbols). The latter option seems to be difficult as the symbols are newly created and are not familiar to both the linguist and the speaker of the language under investigation. Thus, at the initial stage, it may have certain negative influence in the literacy program.

We demonstrate the orthographic representation of the language that we are employed in the current study as it is shown below.

The following are the graphemes suggested for writing the vowel Phonemes of Dime.

Ethiopic	Phonemes in IPA	Graphemes
/ኢ/	/i/	[i]
/እ/	/ɨ/	[i̦]
/ኤ/	/e/	[e]
/ኤ̣/	/ɛ/	[e̦]
/ኧ̄/	/ʌ/	[ʌ̦]
/አ/	/a/	[a]
/ኦ/	/o/	[o]
/ኦ̣/	/ɔ/	[o̦]
/ኡ/	/u/	[u]
/ኢ:/	/i:/	[ii]
/ኤ:/	/e:/	[ee]
/አ:/	/a:/	[aa]
/ኦ:/	/o:/	[oo]
/ኡ:/	/u:/	[uu]

The new symbols as compared to English orthography the sound [ʌ, ɨ, ɛ, and ɔ] are occurred in few instances. The vowels [ʌ, ɨ, ɛ, and ɔ] are suggested to be represented by the graphemes [ʌ̦], [i̦] [e̦] and [o̦] respectively. Vowel length is apparent in Dime and is represented by doubling the symbol for the short vowel as it is shown above.

Consonants

For the sake of our purpose, the consonants of Dime are divided into two parts. The first part consists of those sounds which are identical to English.

These are represented by using the same symbols as in English comparing with Ethiopic alphabets are given below.

Ethiopic	phonemes in IPA Symbols	Graphemes
/ት/	/t/	[t]
/ብ/	/b/	[b]
/ድ/	/d/	[d]
/ከ/	/k/	[k]
/ግ/	/g/	[g]
/ስ/	/s/	[s]
/ዝ/	/z/	[z]
/ፕ/	/p/	[p]
/ህ/	/h/	[h]
/ም/	/m/	[m]
/ን/	/n/	[n]
/ል/	/l/	[l]
/C/	/r/	[r]
/ው/	/w/	[w]

In this first part of graphemes, the [h] grapheme is used to represent the glottal fricative /h/, which is an independent phoneme in Dime. The same grapheme has also been used to represent another feature, the palatal place of articulation, as in [ch] and [sh]. Moreover, the same grapheme has been used to represent implosives as [dh]. Hence, the [h] grapheme is used inconsistently representing various features. The graphemes [y] and [g] are also used in the same way, each of them representing two different features. The symbol [y] represents the phoneme [j], while the grapheme [g] is used to represent the phoneme [g] and the velar feature in [ng].

The second part consists of consonant sounds that require new symbols or graphemes, as follows.

Ethiopic	Phonemes in IPA symbols	Graphemes
/ኡ̱/	/ɓ/	[bh]
/ጭ/	/tʃ'/	[c']
/ቸ/	/tʃ/	[ch]
/ፀ/	/ts/	[ts]
/ሽ/	/ʃ/	[sh]
/ጅ/	/dʒ/	[j]
/ዽ/	/ɗ/	[dh]
/ይ/	/j/	[y]
/ঙ/	/ŋ/	[ng]
/ኝ/	/ɲ/	[nch]
/ቅ/	/k'/	[k']
/ኽ/	/χ/	[kh]
/ኸ/	/ʁ/	[gh]
/ቀ̈/	/ɣ/	[gx]
/ጉ/	/x/	[kx]

The following symbols such as ejectives (c', k'), [ʔ] which represents a glottal stop and [dh, bh] such as ɓ and ɗ in Dime, represents an implosive and the sounds x, χ, x, ʁ are used to represent sounds which are not heard in English. The ejective sounds (c', k') are produced where pressure is built by pushing up closed glottis. The implosive sound [dh] is produced by sucking a puff of air into the mouth while the glottal sound [ʔ] is produce unreleased voiced glottalic stops. Mulugeta (2008) argues the sounds (x, χ, x, ʁ) are not including in Bender (1988) works among the frequent sounds of the Omotic group. The presence of these sounds in the Dime language makes it somewhat different from the rest of the Omotic group. For the purpose of this study adopting the existing script is preferred. It is known that, in Ethiopia, the predominant and competing scripts are Ethiopic and Latin. Thus, in this practice, these two types of scripts are chosen to show which one of them is more compatible (or well matched) with the Dime sound system.

We try to compare and contrast the two scripts in order to find the most compatible and useful script for Dime. Thus, if we choose the Latin based script, we will have the following advantage and disadvantages. In the following table, the phonemes of Dime are written in IPA and their equivalent substitutes in Latin Script.

Table 3: Symbol match correspondence of Dime consonant phonemes

with Latin script (1).

Phoneme of Dime	p	b	ɓ	t	d	tʃ	dʒ	tʃʼ	k	kʼ	g	x	ɣ	χ	ʁ
Orthography in Latin	p	b	-	t	d	-	-	-	k	-	g	-	-	-	-

Table 4: Symbol match correspondence of Dime consonant phonemes

with Latin script (2).

Phoneme of Dime	ʔ	f	s	z	ts	sʼ	ʃ	ʒ	h	m	n	ŋ	ɲ	r	l	w	j
Orthography in Latin	-	f	s	z	-	-	sh	-	h	m	n	-	-	r	l	w	y

As clearly seen in the above table, twelve consonant phonemes of Dime, the ejective consonants, tʃʼ,kʼ,sʼ the velar and uvular consonants x, x, χ, ʁ, and nasal velar ŋ and nasal palatal ɲ and the glottal stop ʔ and the alve-palatal fricative ʒ and the implosives do not have equivalent matches in Latin and hence they need to be modified to employ the Latin Script. This is one of the disadvantages of the Latin based script for Dime. The other disadvantage is that phonemes such as, ʃ, tʃ and ts are represented by two symbols each sh and ch, respectively. In addition, when such phonemes are geminated, we use at least three or four letters (symbols).

Moreover, from the word economy perspective it is obvious that an alphabetic writing system such as Latin takes double space as compared to the syllabic writing system such as Ethiopic writing system. In other words, the Latin based script represents each syllable by writing the consonant and vowel separately as CV, for example /na/, whereas, the syllabic or Ethiopic based script represents each syllable by writing the consonant and vowel together as /ና/. Because of this, the Latin based script is less economical in terms of space, while the Ethiopic scripts is economical. For instance, to write the word Dime-gerfa in Latin we write nine symbol (i.e,dime-

gərfa), while we use in Ethiopic script we write only five symbol (i.e. ዲሜ-ገርፉ). Thus, the Ethiopic script is more economical.

Therefore, if we choose the Ethiopic based Script we will have the following advantage and disadvantages. In the following table, the consonant phonemes of Dime are presented in IPA and their equivalent symbols (letters) in the Ethiopic symbols.

Table 5. Symbol match correspondence of Dime consonant phonemes

with Ethiopic script (1)

Phoneme of Dime	p	b	ɓ	t	d	tʃ	dʒ	tʃ'	k	k'	g	x	x	χ	ʁ
Orthography in Ethiopic	ፐ	ብ	ቷ	ት	ድ	ች	ጅ	ጭ	ከ	ቀ	ግ	-	-	ሕ	ኽ

Table 6. Symbol match correspondence of Dime consonant phonemes

with Ethiopic script (2)

Phoneme of Dime	ʔ	f	s	ts	z	s'	ʃ	ʒ	h	m	n	ŋ	ɲ	r	l	w	j
Orthography in Ethiopic	ዕ	ፍ	ስ	ፀ	ዝ	ጽ	ሽ	ዠ	ህ	ም	ን	-	ኝ	ር	ል	ው	ይ

As we can see in the above table, the consonant phonemes of Dime have better matches in the Ethiopic script compare to the Latin script. Ethiopia is the home land of multilingual society, where multiple languages are being used in various domains such as in education. Thus, the issue of transfer or "bridging" between languages that use the same script is a central idea to avoid confusion or repeating of sounds to learn a second language. In Dime orthography I used the sound in Amharic to present a new sound that is not found in Amharic by modified it and introduce some additional symbol under it. For instance, I used the sound /ጽ/ by using additional symbol under it to represent /ɓ/. This makes avoid sound confusion with the Amharic /ጽ/. Similarly, I used /ፀ/ to represent /ts/ in Dime, the sound /ፀ/ contains additional symbol to identify it from /ፀ/ in Amharic.

As already stated above, the other advantage is that it is economical in terms of space. It represents the syllable CV with a single letter (symbol). Dime is also following the same seven alphabet order as in Ethiopian scripts. The Dime people are more familiar with Ethiopian scripts since they are using Amharic as working language and a language of lingua franca. A few disadvantages may be the existence

of a few symbols that doesn't fit with Ethiopian scripts that needs modification. However, it has better sound corresponding comparing to the Latin alphabets. Thus, I would suggest to Dime the seven alphabet order rather than to propose nine alphabet order. The additional lax vowels can be treated in other means. The student can learn such kinds of sounds in a separate chart providing with specific examples.

Consonant Gemination is a frequent phenomenon in Dime. It occurred at word medial and final positions. In orthography development process one of the issues for which the Ethiopic script has been unduly criticized, by those who favor the Latin script, is that the script cannot represent gemination of consonants and claimed that it is deficient in representing such phonological features. However, this claimed can be treated the quation of germination and vowel length by using the same methodology that Latin used for gemination and vowel length representation. The followings are some examples of Geminate consonants and the way they presented in the orthography and followed by vowel length representation.

ቲሽሽ	tíʃʃ	'ripe crop'
ካብቤ	kábbe	'maize'
ቱስስ	túss	'pillar'
ዕይየ	ʔiyyí	'person'

Vowels length

The nine vowels systems of Dime have long counterparts. The vowel length and the way that we used in the orthography as shown the examples below:

ጻአኔ	s'aa	'vomit'
ቹኡ	tuu	'bottom'
ጼኤት	s'eet	'hundred'
ቢኢት	bíít	'magic, evil'

Furthermore, in Dime orthography tone is not represented because tone is not much productive issues in the language as comparing to other neighboring and African languages who's even under that serious situation avoid tonal representation in their orthography. In the language there are two level tones that are high and low but it can be identified contextually.

Table 7: Suggested Orthography in Ethiopic Script

ተ.ቁ	አይ ፒ ኤ	መግለጫ	ተናባቢ ድምጾች		አናባቢ ድምጾች						
					አ	አ.	ኢ	አ	ኤ(ኤ)	እ(ኧ)	ኦ (ኦ)
1.	p	Voiceless bilabial stop	ፕ	ፐ	ፑ	ፒ	ፓ	ፔ	ፕ	ፖ	
2.	b	Voiced bilabial stop	ብ	በ	ቡ	ቢ	ባ	ቤ	ብ	ቦ	
3.	ɓ	Voiced bilabial implosive	�	ቆ	ቆ	ቊ	ቐ	ቐ	ቖ	ቐ	
4.	ɗ	Voiced dental implosive	ዕ	ደ	ዱ	ዲ	ዳ	ዴ	ድ	ዶ	
5.	m	Voiced bilabial nasal	ም	መ	ሙ	ሚ	ማ	ሜ	ም	ሞ	
6.	f	Voiceless labial fricative	ፍ	ፈ	ፉ	ፊ	ፋ	ፌ	ፍ	ፎ	
7.	w	Bilabial semi-vowel	ው	ወ	ዉ	ዊ	ዋ	ዌ	ው	ዎ	
8.	t	Voiceless dental stop	ት	ተ	ቱ	ቲ	ታ	ቴ	ት	ቶ	
9.	d	Voiced dental stop	ድ	ደ	ዱ	ዲ	ዳ	ዴ	ድ	ዶ	
10.	s̕	Ejective fricative	ጽ	ጸ	ጹ	ጺ	ጻ	ጼ	ጽ	ጾ	
11.	n	Voiced dental nasal	ን	ነ	ኑ	ኒ	ና	ኔ	ን	ኖ	
12.	ɳ	Voiced alveolar nasal	ኝ	ኘ	ኙ	ኚ	ኛ	ኜ	ኝ	ኞ	
13.	ɲ	Voiced palatal nasal	ኝ	ኘ	ኙ	ኚ	ኛ	ኜ	ኝ	ኞ	
14.	s	Voiceless alveolar fricative	ስ	ሰ	ሱ	ሲ	ሳ	ሴ	ስ	ሶ	
15	ts	Voiceless alveolar affricate	ፀ	ፀ	ፁ	ፂ	ፃ	ፄ	ፀ	ፆ	
16.	z	Voiced alveolar fricative	ዝ	ዘ	ዙ	ዚ	ዛ	ዜ	ዝ	ዞ	
17.	ʒ	Voiced palatal fricative	ዥ	ዠ	ዡ	ዢ	ዣ	ዤ	ዥ	ዦ	
18.	r	Voiced alveolar flap	ር	ረ	ሩ	ሪ	ራ	ሬ	ር	ሮ	
19.	l	Voiced alveolar lateral approximant	ል	ለ	ሉ	ሊ	ላ	ሌ	ል	ሎ	
20.	ʃ	Voiceless palatal fricative	ሽ	ሸ	ሹ	ሺ	ሻ	ሼ	ሽ	ሾ	
21.	j	Voiced palatal glide	ይ	የ	ዩ	ዪ	ያ	ዬ	ይ	ዮ	
22.	k	Voiceless velar stop	ክ	ከ	ኩ	ኪ	ካ	ኬ	ክ	ኮ	

23.	ʔ	Glottal stop	ዕ	ዐ	ዑ	ዒ	ዓ	ዔ	ዕ	ዖ
24.	g	Voiced velar stop	ግ	ገ	ጉ	ጊ	ጋ	ጌ	ግ	ጐ
25.	kˈ	Velar ejective stop	ቅ	ቀ	ቁ	ቂ	ቃ	ቄ	ቅ	ቆ
26.	X	Voiceless velar fricative	ኅ	ኀ	ኁ	ኂ	ኃ	ኄ	ኅ	ኆ
27.	x	Voiced velar fricative	ዃ	ዄ	ዅ	ዂ	ዃ	ዄ	ዅ	ዃ
28.	χ	Voiceless uvular fricative	ሕ	ሐ	ሑ	ሒ	ሓ	ሔ	ሕ	ሖ
29.	ʁ	Voiced uvular fricative	ኽ	ኸ	ኹ	ኺ	ኻ	ኼ	ኽ	ኾ
30.	h	Voiceless glottal fricative	ህ	ሀ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ
31.	dʒ	Voiced palatal affricate	ጅ	ጀ	ጁ	ጂ	ጃ	ጄ	ጅ	ጆ
32.	tʃˈ	Palatal affricate ejective	ጭ	ጨ	ጩ	ጪ	ጫ	ጬ	ጭ	ጮ
33.	tʃ	Alveo-palatal affricate	ች	ቸ	ቹ	ቺ	ቻ	ቼ	ች	ቾ

For the last 27 years of political system language script choice is conducted on the bases of political influences. Thus, the system was promoted Latin rather than indigenous Ethiopic scripts. However, the current politic outlook is changed hopefully the Dime people regarding to their previous and current interest they will employed Ethiopic scripts.

5 Conclusions and Recommendations

As we have been discussed so far Orthography is a standardized system for using a particular script to write a particular Language. Currently, in Ethiopia two types of writing systems are being implemented in the development of writing system for minority Languages, the Latin and the Ethiopic script. Among the minority languages Dime orthography development is important to employ mother tongue education in the community. As we have been mentioned in our discussion South region Amharic is the working language. Thus, the community are familiar with Amharic being as a lingua franca language of different community in the region. Thus, Ethiopic script is being implemented in the community with various reasons. As of the researcher observation from the Dime people they have big interest and demand to develop their language writing system in Ethiopic scripts. In this regard the interesting point is

sounds of Dime can be presented easily in Ethiopic script comparing to Latin based on the comparative data that has been presented. The development of the Dime orthography consists of two parts; the first one is the choosing of the script and the second one is developing the writing rule using the selected script. This study is crucial to bring the Dime language into mother tongue education. In the process the social, historical, political, cultural and linguistic evidences of the community is considered.The orthography treated in this study is not an official orthography that has been approved by the local communities/Authorities. This orthography is discussed and presented here in its current form only for the purpose of initiating how the Ethiopian Scripts can work for any Ethiopian languages better than the Latin scripts. A comparative discussion between the two scripts is done. The researcher develops scripts using Ethiopian scripts for Maale one of the Omotic languages in the area which has been approved by the Local communities and Authorities. There are also many Ethiopian languages that have been used Ethiopic scripts such as Saho, Kunama, Kebena, Basketo, Siliti, etc.

In this study, 33 consonant phonemes, and 9 vowel phonemes are identified and presented by the Ethiopic scripts. The distribution of the consonant and vowel segments in the three word positions—word initial, word-medial, and word-final is employed to prove the phonemic status of the sound segments. Besides, script correspondences visa-vis the IPA is presented. In the analysis of the Dime orthography, the Latin and the Ethiopic scripts are compared. Such comparisons give alternatives to the native speakers to choose the suitable script for their language. The researcher in this study tries to show the linguistic possibilities and advantages to the community to use Ethiopic scripts. However, it needs further discussion with the community. Then related training, exercises and more material preparing processes is required.

As it obviously knows in the process of Orthography development the linguistic principles indicated that the sounds of the language must be represented carefully. The sound representation must not be influenced by either over-differentiation or under-differentiation of symbols. Thus, the scripts are carefully presented using the Ethiopic scripts.

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