

## Lexical Enrichment in Hadiyyisa

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**Abstract:** The present study attempted to describe lexical enrichment in one of the Highland East Cushitic languages, Hadiyyisa. Instructors from Wachemo University and Hossana College of Teachers Education took part in this study. The data was collected and analyzed using a qualitative methodology. The main tool for data gathering was document analysis, though key informant interviews and questionnaires were used in complementing the former. The findings showed that language-internal and external resources were extensively employed as strategies of lexical enrichment in Hadiyyisa. For lexical enrichment in the language, semantic transfer and compounding were the most common methods, whereas abbreviation and blending were less common. When it comes to language-external means, borrowing and loan translation were the most productive ways of enrichment in Hadiyyisa. Hadiyyisa did not have unmodified borrowing since the language borrowed terms with adaptations. Hadiyyisa relied on foreign languages such as English, Arabic, French, and Italian for source languages rather than Ethiopian languages, including related Cushitic languages. The majority of the European loanwords entered Hadiyyisa via Amharic, and the loan translations in Hadiyyisa came from English and Amharic as source languages. It is imperative that unnecessary borrowings should be avoided and native Hadiyya words should be substituted in relation to lexical expansion. Furthermore, standardization is in order for the observed concurrent use of loanwords and their native counterparts in Hadiyyisa.

**Keywords:** Hadiyya; Hadiyyisa; Lexical enrichment; Standardization; Terms

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## 1. Introduction

Hadiyyisa speakers mainly reside in the Hadiyya Zone of the Southern Nations Nationalities and Peoples' Regional State of Ethiopia. Hadiyya Zone, made up of thirteen *Woredas* (districts), is located in the West of the Rift Valley region. The districts are Leemo, Anleemo, Shaashoogo, Misha, Gibe, Amaka, Sooro, Mi'irab Sooro, Duuna, Gombora, Misrak Badawwacho, Merab Badawwacho, and Siraro Badawwacho. The zone's capital, Hossana, is situated 230 kilometers south of Addis Ababa.

Hadiyyisa, along with Kambaata, Sidaama, Gedeo, and Burji, is a member of the family of Highland East Cushitic languages. Scholars refer to the people and the language as Hadiyya. However, the people prefer to be referred to as Hadiyya, and their language as Hadiyyisa literally 'the Hadiyya language.' The number of mother tongue speakers of Hadiyyisa is 1,284,366 people (Central Statistical Agency [CSA], 2008). Since 1993, Hadiyyisa has been used in formal education as a medium of instruction for grades 1-6 (now for grades 1-4), and it is taught as a subject up to grade 12. In addition, community radio, educational media, and television programs are available in Hadiyyisa. The lexical enrichment activities have been made in Hadiyyisa to meet the need for its use in education and media.

Lexical enrichment, also called modernization, can be studied within the general framework of language planning. Language planning refers to purposeful efforts to affect other people's behavior in terms of language learning, structure, or functional allocation (Cooper, 1989). The main goal of language planning activities is to find solutions to language-related communication issues. Language planning is often categorized into three aspects: i) status planning, ii) corpus planning and iii) acquisition planning (Deumert, 2009; Cooper, 1989). The major concern of the present study is corpus planning.

Status planning is defined as intentional attempts to influence the distribution of roles among languages of a certain community (Cooper, 1989). It is aimed at providing a language with new functions. Promoting a language to an official status or making it a medium of education, for example, has implications for how that language is used in that particular society (Deumert, 2009; Wolff, 2000). Similarly, Wiley (1996) states that status planning includes selecting a language as the medium of instruction in a community that is bilingual.

Cooper (1989) characterizes corpus planning as tasks such as coining new terminology, reforming spellings, and adopting a new script. It is concerned with the alteration of language structure, which includes orthography development, pronunciation suggestions, vocabulary expansion, and language usage style. Corpus planning also includes the invention of new forms, the reform of old ones, and the selection of alternative forms in a spoken or written form of a language (Magwa, 2008).

Corpus planning refers to modifying a language's internal structure to satisfy specific criteria in official and higher education domains for scientific and technical discourses (Nakin, 2009). It is described as linguistic planning aimed at creating spelling conventions, establishing grammatical norms, and broadening the lexicon (Wolff, 2000; Kaplan and Baldauf, 1997). As to Hornberger (2006), corpus planning includes lexical modernization or enrichment, reform, purification, stylistic simplicity, and terminology unification.

The two components of corpus planning are codification and elaboration (Haugen, 1983). The first component, codification, which is a prerequisite for the standardization of a language, is the process of minimizing variation in the form to reduce misunderstandings during the communication process (Haugen, 1966). It refers to an explicit statement of the standard language form via dictionaries, punctuation and pronunciation guides, and grammar (Appel and Muysken, 1987). Codification normally develops and formalizes a set of linguistic norms for written language (Kaplan and Baldauf, 1997).

The second component of corpus planning, i.e. elaboration/enrichment of vocabulary, also called modernization, is a means of making a language capable of expressing modern new concepts. Elaboration is the process of improving a language's inter-translatability with other languages over a wide range of topics and modes of discourse in industrialized, secularized, structurally differentiated,

‘modern’ society (Cooper, 1989). As knowledge and technology advance, Wolff (2000) underlines the significance of creating a lexicon for the commercial, professional, and scientific realms. Similarly, Ferguson (1996) underlines that elaboration improves languages by providing specialized vocabularies and discourse patterns that are connected to the many functions that languages must serve in modern society.

The third aspect of language planning is acquisition planning. Cooper (1989) views acquisition planning as coordinated efforts of advancing language learning. It is an attempt of expanding language use through methods, like producing newspapers, utilizing news broadcasts, and creating simplified literature for second language learners. The sociolinguistic phenomenon targets the spread of languages, expansion of their uses, and the increase in the number of their users (Cooper, 1989).

One of the most essential areas where lexical enrichment is most needed is education. From basic school to tertiary education, Hadiyyisa is employed in formal education. It was introduced as a medium of instruction in Grades 1-4, and it is now taught as a school subject in Hadiyya Zone from grades 1 to 12, as well as being offered as an area of study at Wachemo University. The language has also been taught in Hossana College of Teacher Education as a subject and as an independent department. Having such an expanded role, the language inevitably calls for lexical enrichment and standardization. The author of this study has also observed the challenges of lexical standardization in Hadiyyisa and the efforts made toward lexical enrichment in the language. This very reason motivated the investigator to take up the initiative of conducting the study.

There are few related studies conducted on the corpus planning of Hadiyyisa. Mazengia (2017) wrote an article on Hadiyyisa orthography. The results showed that students had difficulty in distinguishing between simplex and geminate consonants, as well as between short and long vowels. According to the findings of this study, the most frequently encountered difficulty is the representation of geminates and long vowels as simple segments. The study focused mostly on spelling issues, specifically consonant gemination and vowel length, and proposed solutions from the stances of spelling regularity and economy. The current study focuses on lexical enrichment and standardization issues in Hadiyyisa differently from Mazengia’s work that mostly focused on the analysis of segmental orthography.

Handamo (2017)<sup>1</sup> studied “Contrastive Analysis of Lexical Standardization in Amharic and Hadiyya” for his Ph.D. accomplishment. Using grade 1-4 textbooks, the researcher contrastively discussed approaches of lexical standardization. The present study begins with a focus on lexical enrichment in the higher domain of language use, i.e. at the university and college levels. Hence, the purpose of this study is to look into the efforts of lexical enrichment and standardization as well as its contribution to language development in Hadiyyisa.

The main objective of the study was to describe the efforts of lexical enrichment and standardization in Hadiyyisa. The specific objectives of the research were to:

1. discover the most commonly used linguistic strategies for lexical enrichment in Hadiyyisa.
2. identify problems of lexical enrichment in Hadiyyisa.
3. suggest possible ways of minimizing the problems of lexical enrichment and standardization in Hadiyyisa.

There are different methods of lexical enrichment. According to Sager (1990), there are three basic techniques for developing new designations to express concepts: (1) using existing resources, (2) changing existing resources, and (3) inventing new linguistic elements or neologisms. As explained by Sager (1990), the concept of new lexical items or terms can be formed by using existing resources. The method indicates an extension of existing terms to express new concepts or carry new meaning to designate new concepts in the target language. The naming of a concept in comparison to another, for

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<sup>1</sup>The present study is the continuation of the author’s doctoral work (see Handamo, 2017). Apparently, there are only some structural similarities between the author’s PhD dissertation and the current paper in connection with the conceptual framework of the study.

example, is a well-known practice. Different concepts can also be named by the re-use of a special designation from one field to another. The second way of term formation is modifying existing resources. As to Sager (1990), this method includes linguistic strategies, such as derivation, compounding, conversion, and compression.

The other major productive ways of creating new terms are borrowing and loan translation. These ways are regarded as language external approaches to expanding a language's vocabulary (Temmerman, 2000; Cabré, 1999).

The term borrowing refers to incorporating linguistic items from a certain *donor language* into a *recipient language* (Mesthrie and Leap, 2009; Myers-Scotton, 2006). This mechanism fills the lexical gap that exists in the recipient language through the means of language external source. Myers-Scotton (2006: 212-215) categorizes these type of borrowings as cultural borrowings since "they stand for objects or concepts new to the language's culture". Borrowings can alternatively be classified as core borrowing, which refers to "words that duplicate elements that the recipient language already has in its word store" (Myers-Scotton, 2006: 215). In core borrowing, the words are borrowed redundantly as a result of cultural pressure or the wider function of a donor language. Superfluous borrowing is a term used to describe this kind of borrowing.

There are two occurrences of borrowing: unmodified (direct) and modified (indirect) borrowing. Modified borrowing is a more common kind of borrowing than unmodified borrowing in terms of frequency. Cabré (1999) outlines three strategies for adjusting borrowed linguistic items in this context: changing one or more elements, omitting an element, and adding an element to the borrowed forms.

The other productive method of language external means of terminology development is loan translation (also called *calque*). Loan translation is defined as lexical items or phrases which are reproduced as literal translations from a source language into the recipient language (Dorleijn, 2009). According to Myers-Scotton (2006), loan translation is another type of indirect borrowing.

In general, Sager's (1990) methods of lexical enrichment shall be employed as the conceptual framework in this article. The following figure summarizes the conceptual framework of the study.

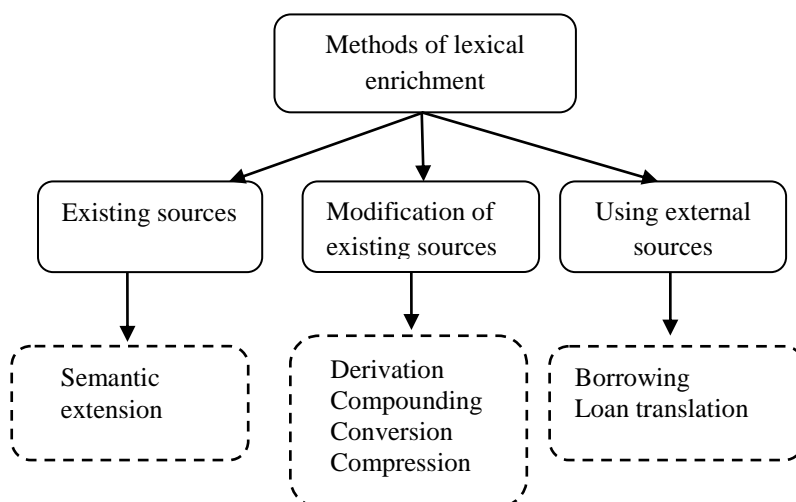


Figure 1: Methods of lexical enrichment

Source: Modified based on Sager (1990: 71)

## **2. Research Methods**

### **2.1. Research Design and Method**

The study employed a qualitative research design to describe mechanisms of lexical enrichment and standardization in Hadiyyisa. Sampling techniques, data gathering instruments, and data analysis methods are addressed in the following subsections.

### **2.2. Sampling**

Data were obtained from Wachemo University and Hossana College of Teachers Education to meet the research goal. The two higher education institutions were selected purposively because they are the only ones in the Hadiyya Zone. The university where Hadiyyisa is offered as a field of study and the college where it is taught as a subject and field of study were purposefully chosen as settings for data collection.

The participants of this study, i.e. instructors, were chosen purposively as the issues of language development require relevant individual data sources with rich teaching experiences. In line with this, teachers with professional experiences in teaching Hadiyyisa language for at least two years<sup>2</sup> were considered for their views of Hadiyyisa lexical enrichment. One instructor from each field of specialization, such as Linguistics, Literature, Journalism, and Communication and Language Teaching was selected purposively for the interview based on his/her teaching experience in the respective specializations. Moreover, one instructor from each area of specialization (e.g., Linguistics, Language Teaching, Literature, and Journalism) was also selected randomly to complete the questionnaire.

### **2.3. Methods of Data Collection**

As data gathering tools, key informant interviews, document analyses, and questionnaires were used. The details of data collection tools are discussed as follows.

#### **A) Key informant interviews**

Instructors from different fields of specialization were included in the interview. They were asked about their experiences of terminology enrichment and challenges of standardization during the development of modules or teaching materials in the language.

#### **B) Questionnaire**

A questionnaire was administered to Hadiyyisa instructors to gather data on terminology development in the language. The nature of the questionnaire was open-ended, and it was intended to elicit data from teachers on lexical and terminological related practices and challenges in Hadiyyisa. This would help data triangulation on the issues of lexical and terminology development in the language.

#### **C) Document analysis**

Because the number of written resources (modules) available at the university and college is restricted, all available materials were considered. To collect and analyze lexical and terminological development, a written document, such as the Hadiyya-English Dictionary (Hadiyya Zone Education Desk, 1996) was used. In addition, Hadiyyisa textbooks<sup>3</sup> for grades 5-8 were used for the same reason. The researcher was able to describe lexical enrichment and standardization in Hadiyyisa using these key documents.

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<sup>2</sup> Since Hadiyyisa has been introduced recently at the University and College level, most of the instructors start teaching Hadiyyisa without experience in teaching the language as the mother tongue, i.e., they have only been trained in teaching Amharic or English. Hence, two or more years of teaching experience in Hadiyyisa would help an instructor to identify lexical enrichment and standardization problems as opposed to fresh instructors.

## 2.4. Data Analysis and Presentation

The qualitative description method was used to analyze the data in this study. Because the focus of the study is on language standardization, linguistic data were transcribed using orthographic representation. The International Phonetic Alphabet (IPA) transliteration<sup>4</sup> is also given as a key for linguists and general readers. In some instances, the IPA transcription was also used for data presentations. For instance, in the borrowing section, IPA is used to transcribe Amharic and some of the Hadiyyisa data.

## 3. Results and Discussions

In this section, lexical enrichment mechanisms will be discussed in Hadiyyisa. It has been categorized into language-internal and external means of lexical development in the language.

### 3.1. Language-internal Means of Lexical Enrichment in Hadiyyisa

#### 3.1.1. Derivation

In Hadiyyisa, derivation is one of the most effective strategies of lexical and terminological enrichment. It enables the designation of new concepts introduced to the language by the addition of suffixes to the verbal, nominal, and adjectival roots or stems. In this section, therefore, a nominal derivation is described since it is a productive way to designate new concepts in Hadiyyisa.

##### 3.1.1.1. Abstract nominals

In abstract nominalization, lexical items which had concrete meanings express abstract meanings. Abstract nominals are formed by attaching the suffix *-oom* to the verbal roots and nouns as indicated in (1a) and (b), respectively. The suffix *-oom* is a derivational morpheme whereas *-a* is the default terminal vowel.

(1a)	Verbal root	Gloss	Abstract nominals	Gloss
	<haraar->	'be wide'	<haraar-oom-a>	'area'
	<hayyo'->	'know'	<hayyo'-oom-a>	'expertize'
	<qeeraa'l->	'be long'	<qeeraa'l-oom-a>	'length'
b)	Noun	Gloss	Abstract nominals	Gloss
	<besha>	'friend'	<besha-oom-a>	'friendship'
	<olla'a>	'neighbor'	<olla'-oom-a>	'neighborhood'
	<qaxa>	'amount'	<qax-oom-a>	'rate'

In data (1a) and (b), different mathematical and social science terms were coined by attaching */-oom-a/* to the verbal roots. As shown in (1b), terminal vowels of the base noun are moved to the final positions when derivational morpheme *-oom* is added to the nouns. When loanwords are added to the stock of technical or scientific vocabulary, they are integrated into the Hadiyyisa morphological system. For instance, the mathematical term 'congruency' is adapted and used in Hadiyyisa as *kongireentooma* 'congruency'.

The suffix *-an* is used in the derivation of abstract nominals when it is attached to the nouns as shown in data (2).

<sup>3</sup> Grade 5-8 Hadiyya textbooks were published in 2006 E.C, by Ministry of Education.

<sup>4</sup> For the linguistic data, the Roman-based Hadiyyisa orthography has been transliterated as follows: c = /tʃ/, ch = /tʃ/, j = /dʒ/, ny = /ɲ/, q = /kʰ/, sh = /ʃ/, ts = /sʰ/, x = /tʰ/, y = /j/, zh = /ʒ/, ' = /ʔ/. Geminated consonants and long vowels are indicated by doubling the symbols. In the data, <> stands for orthographic transcription whereas // stands for phonemic transcription.

(2)	Noun	Gloss	Abstract nominal	Glos
	<adila>	‘king’	<adill-an-o>	‘kingdom’
	<manna>	‘human’	<mannoomm-an-o>	‘humanity’
	<wolaba>	‘free person’	<wolabb-an-o>	‘freedom’

As portrayed in (2), in the lexical items, such as *mannooma* and *ciilooma*, the nouns have *-oom*<sup>5</sup> suffix as the obligatory item before attaching abstract nominalizer *-an*. In other cases, the suffix *-an* is attached to the underived nouns. When abstract nominal marker *-an* is attached to the noun (2), the final consonant gets geminated, as in *adila* ‘king’ → *adill-an-o* ‘kingdom’.

By appending the suffix *-at* to the verbal roots, other types of abstract nominals can be constructed. The terminal vowel *-o* also appeared in the citation form of abstract nominals as demonstrated in (3).

(3)	Verbal root	Gloss	Abstract nominal	Gloss
	<guur->	‘weigh’	<guur-at-o>	‘mass’
	<xan->	‘be able’	<xan-at-o>	‘ability/skill/patience’
	<keen->	‘measure’	<keen-at-o>	‘measurement’

The final set of abstract nominals is derived from verbal roots by suffixing <-o> /-o?/ with the terminal vowel *-o* as portrayed in (4).

(4)	Verbal root	Gloss	Abstract nominal	Gloss
	<asheer->	‘begin’	<asheero’o>	‘beginning’
	<fint->	‘factorize’	<finto’o>	‘factorization’
	<qood->	‘plan’	<qoodo’o>	‘planning’
	<haalat->	‘behave’	<haalato’o>	‘character’
	<som->	‘attach’	<somo’o>	‘affix’

As can be seen in (4), nominals ending in suffix <-o> /-o?/ are productive in the formation of new terminology in Hadiyyisa. Most of the concepts designated by suffixing <-o> are recently added to Hadiyyisa to extend its vocabulary for the concepts in Social Science, Mathematics, and Language.

### 3.1.1.2 Agentive nominals

Agentive nominals derive from the verbal roots by adding morpheme *-aan*. In such nominals, according to (Sibamo, 2015), the singulative marker *-ch* is affixed to the agentive nominals obligatorily. When the agentive nominals are expressed in citation form, they use the terminal vowel <-o>. Consider example (5).

(5)	Verbal root	Gloss	Agentive nominal	Gloss
	<awwon->	‘follow’	<awwon-aan-ch>	‘follower’
	<gass->	‘administer’	<gass-aan-ch>	‘administrator’
	<leejjis->	‘train’	<leejjis-aan-ch>	‘trainer’
	<saarayy->	‘identify’	<saarayy-aan-ch>	‘researcher’
	<soroob->	‘investigate’	<soroob-aan-ch>	‘investigator’

<sup>5</sup> Even though the function of *-oom* is not clear, it is an obligatory item before attaching *-an* in the two words.

### 3.1.1.3. Result nominals

Nominals designating results of actions are shown by the suffixes *-chch*, *-a* and *-o* as illustrated in (6).

(6)	Verbal root	Gloss	Result nominal	Gloss
a)	<li'->	'develop'	<li-chch-a>	'development'
	<la'->	'know'	<la-chch-a>	'knowledge'
	<gafe'->	'push'	<gafe-chch-a>	'pressure'
b)	<awwons->	'lead'	<awwons-a>	'leadership'
	<dambaq->	'to terrorize'	<dambaq-a>	'terror'
c)	<bax->	'work'	<bax-o>	'work'
	<gass->	'spent the night'	<gass-o>	'administration'

As in (6a), the suffix *-chch-* is attached to words ending in the glottal consonant /ʔ/, which is orthographically represented as <'> in the majority of situations. In the process of suffixation, the root final consonant (i.e., <'>) is deleted when *-chch-* is suffixed. In (6b) and (c), the vowels *-a* and *-o* derive nominals from verbal roots. Since the citation form of any word in Hadiyyisa ends in *-a*, *-o*, or *-e* (see Sibamo, 2015), sometimes, it is not easy to decide whether nouns ending in one of these vowels (*-a*, *-o*, or *-e*) derive from verbs by attaching a suffix to the verb stem, or the verbs derive from the nouns<sup>6</sup>. The function of vowel *-a* appeared in the words mentioned in (6a) is different from the function of the vowel attached to the words listed in (6b). The first *-a* has occurred following the suffix *-chch-*, while the latter has been added directly to the root. As a result, in (6a), the vowel *-a* is terminal, as it is in the citation form of the words.

### 3.1.1.4. Instrumental nominals

Instrumental nominals are formally marked by the same morpheme with the agentive marker *-aan*. The meaning of the derived lexical elements is the only distinction. The morpheme *-aan* in the agentive nominals shows the actor or doer of the action, while in the instrumental nominals show the material or instrument with which something is done. Consider example (7).

(7)	Verbal root	Gloss	Instrumental nominal	Gloss
a)	<qananaa'->	'read'	<qananaa'-is-aan-ch>	'vowel'
	<inkiinn->	'identify'	<inkiinn-is-aan-ch>	'article'
	<daaphph->	'look across'	<daaphph-is-aan-ch>	'demonstrative'
b)	<bikk->	'represent'	<bikk-aan-ch>	'symbol'
	<shiinsh->	'erase'	<shiinsh-aan-ch>	'eraser/rubber'

In data (7a), the morpheme *-is-* which is attached to the verbal roots has a function of the causative marker. In all cases, the resultant form of the nominals indicates the instruments or material nouns.

### 3.1.2. Semantic transfer method

A semantic transfer is one of the productive means of lexical and terminological modernization in Hadiyyisa. It includes semantic extension, re-use of a special designation, and re-definition of words.

#### a) Semantic extension

The semantic extension method employs language-internal means to expand the vocabulary of the language to express scientific and technological concepts. To do this, already existing lexical items carry extended and new meanings as shown in (8).

<sup>6</sup> This situation is also similarly existent in Sidaama which is related language to Hadiyyisa (see Kawachi, 2007 :314-315).



(8)	Hadiyyisa	Meaning 1 (Literal)	Meaning 2 (Extended)
a)	<horoore>	hair/head/mind	main/most important/key
	<ille>	eye	center/bud /key/most important
	<lamado>	waist	middle/center
	<midaado>	rib	side (in Ma)
	<sane>	nose	edge
	<suume>	mouth	language/ portion /percentage
b)	<doona>	hive of cereal container	dictionary
	<farara>	wooden bars use to tie cattle	chart/table
	<hooyya>	furrows on filed	rhyme
c)	<buyya>	leaf	number of pages in an exercise book
	<lugumo>	root of plant	root of word (linguistics)
	<misha>	fruit (ripped)	result/finding/effect
	<qooxo'o>	chopped tree in pieces	phase/level/region/component
d)	<dabo'o>	pillar which supports a house	framework (of concepts)
	<qarxa>	partition (in traditional house)	section (in school)
	<shooto'o>	basement for house construction	basics of something or idea
	<xumo'o>	assembled butter in a milk	summary

In (8 a-d), meaning 1 denotes a word's basic meaning, whereas meaning 2 denotes a word's extended meaning. The examples in (8a) illustrate that the most common sources of lexical enrichment are meaning extensions from body parts. The lexical items and concepts in slash demonstrate the words' homonymic nature. The word *horoore*, for example, has three separate meanings: 'hair, head, and brain.' In addition, the same word is used in a secondary sense to indicate the concepts 'main/most important/key/prime.' In this case, the same term stands for the expression of various concepts. Such type of terminology designation could be a source of ambiguity.

Since people of Hadiyya are pastoralists and agriculturalists, language planners designate terms from occupations related to farming and animal breeding via semantic extension as seen in 8(b). As in (8c), new concepts can be designated in Hadiyyisa by the extension of parts of plants, whereas in (8d) cultural practices or activities are employed as lexical elaboration methods by the terminology developers in Hadiyyisa.

#### b) Re-use of a special designation

Another strategy of semantic transfer method of terminological enrichment in Hadiyyisa is a re-use of a special designation. For instance, the Biology term *do'o* 'cycle/circulation' is reused in Mathematics to describe the concept 'perimeter/circumference'. Consider (9) for additional examples.

(9)	Hadiyyisa	Basic meaning	Extended meaning
	<amaxxa>	content (of a book) (Edu.)	volume (geometry, Ma.)
	<do'o>	cycle/circulation (Bio.)	perimeter/circumference (Ma.)
	<keenato>	examination (Edu.)	measurement (Ma.)
	<kululleesa>	round (Env.Sc.)	circle (Ma.)
	<laaga>	sun light (Bio.)	ray (Ma.)

#### c) Redefinition of words

Word redefinition usually entails restricting the meanings of words to convey specialized meanings (Sager and Nkwenti-Azeh, 1989). When words in general vocabulary are redefined, they express scientific notions, as in Table 1.

Table 1. Semantic transfer through a redefinition of words

Hadiyyisa lexical item	Meaning in the general vocabulary	Meaning in a specific subject area
<gafechcha>	pushing	pressure (in phy.)
<guurato>	small but dense	mass (in Phy.)
<haraarooma>	being vast	area (in Ma.)
<hixixxeesa/hixixxaato/ aad gosha>	pulling	gravity (in Phy.)
<ido>	other side (for location)	page number (in Edu.)
<midaado>	side in human/animal body	side (in Ma.)
<qaxooma>	an amount	rate (St or Ma.)
<sibiriixa>	divided into smaller parts	fraction (in Ma.)
<wixxite>	assembly of people	set (in Ma.)

In Table 1, the second row contains general vocabulary, whereas the third row has redefined lexical units that denote specialized subject areas. Environmental science, mathematics, linguistics, and education concepts are redefined in the extended sense. The word *gafechcha* has a basic meaning of ‘pushing’, but it is redefined in physics to designate the concept of ‘pressure’. The terms *hixixxeesa/hixixxaato/ aad gosha* are used to describe gravity in three different ways. When these concepts are compared, *aad gosha* (downhill+pulling) is a better term to describe gravity’s downward or uni-directional movement, whereas *hixixxaato* can describe horizontal and bi-directional movement (Handamo, 2017).

### 3.1.3. Compounding

In Hadiyyisa, compounding is a useful means of creating new terms. Terminology developers in Hadiyyisa create compound words by merging distinct lexical components to designate newly brought concepts into the language. Hadiyyisa compounds are divided into nominal, adjectival, and verbal compounds based on their grammatical categories. When compared to adjectival and verbal compounds, nominal compounds are more productive. In this study, therefore, nominal compounds are discussed as an exemplary derivational strategy of lexical enrichment.

In contrast to other HEC languages like Kambaata and Halaaba, nominal compounding is a common phenomenon in Hadiyyisa (Sibamo, 2015). N+N is the most common form among the different potential combinations of word categories in the compound formation, as in (10).

(10)	Noun + Noun	Nominal compounds	Gloss
a)	<sawwite> ‘idea’ + <sheeqqara> ‘sturcure’→ <takkite> ‘point’ + <sono ’o> ‘system’ <tirato> ‘meaning’ + <sorooba> ‘investigation’→	<sawwixxi sheeqqara> <takkixxi sono ’o> <tiraxxi sorooba>	‘graphic organizer’ ‘punctuation’ ‘semantics’
b)	<xinta> ‘beginning’ + <sawwite> ‘idea’→ <xambo> ‘news’ + <kitaabcho> ‘magazine’→	<xinti sawwite> <xambi kitaabcho>	‘concept’ ‘newspaper’
c)	<suume> ‘mouth’ + <sono ’o> ‘system’→ <losano> ‘lesson’ + <shoga> ‘branch’→ <sagara> ‘word’ + <doona> ‘hive’→	<suu’ m sono ’o> <losa ’n shoga> <saga’ l doona>	‘grammar’ ‘discipline’ ‘dictionary’

In the compounds listed in (10a-c), determining the modifier-head relationship is easier. In N+N compounds, the first noun’s function is to simplify the meaning of the second word. In compound words such as <tiraxxi sorooba> (of meaning + study) ‘semantics’, <xinti sawwite> (beginning + idea) ‘concept’, and <losa ’n shoga> (of lesson + branch) ‘discipline’ the second constituents are heads of the compounds. These compounds are characterized as endocentric because the meaning of the compounds is determined by the head.

In (10a-c), all of the compounds are semantically possessive. There is a possessor-possessed relationship between the constituents. For instance, in <suu'm sono'o> (of mouth+system) 'grammar', the first noun is the possessor and the second noun is the possessed. Because such compounds and genitive phrases are formed by juxtaposing nominals, there is no structural difference between them. In contrast to genitive constructions, no intervening element is allowed between the constituents in N+N compounds.

In addition to the endocentric compounds discussed earlier, N+N exocentric compounds are also found in Hadiyyisa, however, they are less productive than endocentric compounds. An exocentric compound's meaning cannot be derived from its parts, as in (11).

(11)	Noun + Noun	Nominal compounds	Gloss
	<anga> 'hand' + <ejja> 'addition' →	<angejja>	'participation'
	<ille> 'eye' + <iika> 'the one who breaks' →	<illika>	'loss'
	<ille> 'eye' + <ganimma> 'hitting' →	<ilganimma>	'giving permission'
	<lokko> 'foot' + <ejja> 'addition' →	<lokkejja>	'accompanying'
	<tefo> 'hip' + <ejja> 'addition' →	<tefejja>	'shared secrete'

Vowel elision<sup>7</sup> occurs at word boundaries during compound word creation, as seen in (11). One of the vowel elision patterns is the deletion of the first constituent's terminal vowel and the combining of words beginning with a long or short vowel in the second constituent.

The deletion of the last *cv* of the first element is the second compounding method used in (11). When the first constituent the compound has geminated consonants that come before the terminal vowel and the second element begins with a consonant, the first constituent's final *cv* (consonant+vowel) is dropped. The compound term *ilganimma* 'giving permission', for instance, is made up of the words (*ille* + *ganimma*) 'loss'. This method is also quite productive in endocentric compounds. The deletion of the last *cv* from the initial constituents of endocentric compounds is shown in (12).

(12)	Words (constituents)	Compound	Gloss
	<aggiishsha> 'borrowing' + <sagara> 'word' →	<aggiishsagara>	'loanword'
	<beyyo> 'place' + <kura> 'teller' →	<beykura>	'adposition'
	<uulla> 'earth' + <qaaphpha> 'encompass' →	<uulqaaphpha>	'nationwide'
	<heechcha> 'life' + <qaanqa> 'method' →	<heechqaanqa>	'culture'
	<hoshsha> 'day' + <doona> 'record'	<hoshdoona>	'diary'
	<summa> 'name' + <bikke> 'substitute'	<sumbikke>	'pronound'

Hadiyyisa digraphs become tetragraphs when they are geminated. The removal of *cv* from the first constituent's final position makes the word economic; especially for geminated digraphs. For instance, in *hoshsha* + *doona* → *hoshdoona* 'diary', *heechcha* + *qaanqa* → *heechqaanqa* 'culture', etc. the space of three graphemes will be saved to maintain the economy of terms.

In Hadiyyisa, nominal compounds can also be formed by the combination of A+N and ADP+N, as in (13):

<sup>7</sup> When two consecutive vowels are encountered in a word boundary, vowel elision occurs, and the second vowel becomes audible.

(13a)	Adjective + Noun	Nominal compound	Gloss
	<higa> ‘best’ + <qoorooma> ‘wiseness’ →	<higqoorooma>	‘civilization’
	<lob-> ‘great’ + <wongira> ‘boat’ →	<lobwongira>	‘ship’
b)	Adposition + Noun	Nominal compound	Gloss
	<aade> ‘downward’ + <gosha> ‘milking’ →	<aadgosha>	‘gravity’
	<woro> ‘inside’ + <sawwite> ‘idea’ →	<worsawwite>	‘concept’

The second part of nominal compounds was a noun, as previously stated. Furthermore, in the nominal compound creation, the second part could be a word-class other than a noun. As a result, noun + verb stem is another possible compounding combination, as in (14).

(14)	Noun + Verb stem	Nominal compounds	Gloss
	<ammane> ‘time’ + <kur-> ‘tell’ →	<amankura>	‘tense’
	<laso> ‘back’ + <tiir-> ‘remember’ →	<lastiira>	‘flashback’
	<seera> ‘rule’ + <iiq-> ‘breaks’ →	<seeriiqa>	‘exception’
	<tirato> ‘meaning’ + <fenq-> ‘identify’ →	<tiratfenqa>	‘minimal pair’

Even with the insertion of the terminal vowel <-a>, the verb stems *kur-*, *tiir-*, *iiq-*, and *fenq-* could not be used independently as *kura*, *tiira*, *iiqa*, and *fenqa* in the second component of the compound words, as demonstrated in (14). To give full senses to these items, the noun part is required. Due to the back-formation process in (14), the verb stem component is derived from the verbal noun. The term *lastiirimma* ‘remembering back’ becomes *lastiira* (back+remember) ‘flashback’ by removing the –*imm* suffix from the verbal nouns. This pattern (i.e., verb stems + terminal vowel <a>) has just lately emerged in Hadiyyisa as a means of constructing scientific and technical terminology (cf. Handamo, 2017).

### 3.1.4. Abbreviation and blending

In most cases, abbreviation and blending exist in textual form. Even though the methods are not as productive as other lexical enrichment methods, they are used in Hadiyyisa in some cases. The following examples demonstrate how abbreviation works in Hadiyyisa.

(15)	English	Hadiyyisa full form	Abbreviation
a)	example	<kobi’lishsha>	kb.
	Miss	<Aayyichche>	Ay.
	Mister	<Abbaachchi>	Ab.
	plural	<duta>	dt.
	singular	<matandara>	mt.
b)	Anno Domini <sup>8</sup> (A.D.)	<Haafixxi Doolle>	H.D.
	Before Christ (B.C.)	<Ito Doolle>	I.D.

In example (15a), single terms are abbreviated into two letters without punctuation marks in between the letters, whereas in (15b), they are abbreviated by putting a full stop between and after the letters. The second mechanism shows that the abbreviation is formed from two lexical items, and the punctuation indicates the letters avoided during the shortening of the words. Address terms, such as *Abbaachchi* ‘Mister’ and *Aayyichche* ‘Miss,’ were traditionally spelled as *Abb.* and *Ayy.*

<sup>8</sup> In Latin *Anno Domini* stands for “in the year of the Lord”.

However, *Ab.* and *Ay.* have recently taken their place. The first two abbreviations are unnecessarily long, whereas the third and fourth are both economical and consistent.

Abbreviations<sup>9</sup> that can be referred to as acronyms can also be created at the level of a complex word. According to Bauer (2003), acronyms are words made up of the first letters of words in a name, phrase, or title. Consider the following examples of initialisms and acronyms in 16 (a and b), respectively.

(16)	Acronym	Full form
a)	HZFA	<Hadiyyi Zoo'n Fooliis Awwonsa> 'Hadiyya Zone Police Department'
	HZLM	<Hadiyyi Zoo'n Losisaa'n Mateeyya> 'Hadiyya Zone Teachers' Association'
b)	AMX	<Afriiqqi Mateeyyoo'm Xaaxxite> 'Organization of African Union'
	FEM	<Fayya'oo'm Egechchi Ministeera> 'Ministry of Health'

Aside from the shortening technique of acronyms and initialisms, Hadiyyisa depicts only a few examples of blending. Even though this technique is unproductive, the following blends have recently appeared in newly formed terms, as in (17).

(17)	Combination of words		Blending	Gloss
a)	< <i>firimma</i> > 'raising' + < <i>dillimma</i> > 'falling'	→	< <i>firdilla</i> >	'intonation'
b)	< <i>xiinxo</i> > 'syllable' + < <i>sagara</i> > 'word'	→	< <i>xiinxara</i> >	'morpheme'
c)	< <i>kitaabimma</i> > 'writing' + < <i>seera</i> > 'rule'	→	< <i>kit-seera</i> > <sup>10</sup>	'spelling'
d)	< <i>qaxa</i> > 'unite' + < <i>keenato</i> > 'measurement'	→	< <i>qaxkeena</i> >	'evaluation'
e)	< <i>wocinne</i> > 'in speech' + < <i>issimma</i> > 'to make'	→	< <i>wocissa</i> >	'speech act'

A formula AB + CD depicts the combination of components of words, with AB referring to the first word's parts and CD referring to the parts of the second word. The blend structure in (17a) comprises an AC pattern, which combines the first syllables. In (17b), the mix is created by combining AD structures. In other words, the first word's initial portion is joined with the second word's final part. One of the two forms may appear in its whole in blending, as in (17c) *kitaabimma* + *seera* → *kit-seera* 'spelling.' Since the term *seera* 'rule' is not reduced in this example, C is null. In (17d) the terminal vowel of the first word is dropped whereas the last syllable *-to* is removed when the blending strategy is applied.

## 3.2. Language External Means of Lexical Enrichment in Hadiyyisa

### 3.2.1. Borrowing

Borrowing refers to the incorporation of lexical items from other languages into one's own (Winford, 2003). In borrowing, lexical items are provided by a source language (also known as *donor language*), and borrowed by a recipient language (also known as the *target language*) (Winford, 2003). Language external sources are employed for lexical elaboration in borrowing as opposed to derivation, semantic expansion, compounding, and blending which use language-internal sources.

The incorporation of loanwords into the target language involves an adaptation process. In Hadiyyisa, every loanword is modified, so unmodified borrowing is not attested. The techniques of

<sup>9</sup> Initialisms is another name for alphabetic abbreviation.

<sup>10</sup> To minimize reading confusion caused by the sequence of digraph ts /s'/, the word *kit-seera* is hyphenated.

loanword integration from diverse source languages are described in the following section as ways of lexical enrichment in Hadiyyisa.

### 3.2.1.1. Loanword adaptation mechanisms in Hadiyyisa

#### Vowel adaptation

Loanwords in the donor language that terminate in a consonant sound are adapted in Hadiyyisa by adding terminal vowels, as seen in (18).

(18)	English		Hadiyyisa
	‘second’	→	<sekonda>
	‘sector’	→	<sektera>
	‘template’	→	<tempileeta>
	‘tourism’	→	<tuurizima>
	‘vitamin’	→	<viitaamiina>

Hadiyyisa nominals always have the vowels /a/, /o/, or /e/ at the end (Sibamo, 2015). As a result, as indicated in (18), English words that end in consonants in the source language receive terminal vowel /a/ in the recipient language (Hadiyyisa) to conform to its word structure. Similarly, Amharic loanwords behave in the same way. When words in Amharic terminate in a consonant, they are modified in Hadiyyisa by adding a terminal vowel (most typically, /a/), as in (19).

(19)	Amharic		Hadiyyisa	Gloss
	መስቀል /māskʼəl/	→	<masqala>	‘cross’
	ምስል /misil/	→	<misila>	‘picture’
	ክብሪት /kibrit/	→	<kibiriita>	‘match’
	ጥቅምት /tʼikʼimt/	→	<xiqinte>	‘October’
	ፊደል /fidəl/	→	<fidala>	‘letter’

In Hadiyyisa, non-existent vowels are replaced with native vowels together with word-final vowel addition. In this regard, the Amharic central vowels /i/ and /ə/, which are absent in Hadiyyisa, are always replaced with native Hadiyyisa vowels, as in Table 2:

Table 2. Replacement of Amharic central vowels with Hadiyyisa vowels

Vowel replacement	Amharic		Hadiyyisa	Gloss
/i/ → /i/	ድስት /dist/	→	<disxa>	‘sauce pan’
	ግብር /gibir/	→	<gibira>	‘tax’
	ስንቅጥ /sinqittʼa/	→	<sinqixa>	‘product of bamboo’
/ə/ → /a/	መጋዝ /məgaz/	→	<magaaza>	‘sow’
	ቀለም /qələm/	→	<qalama>	‘color’
	መዝገብ /məzgəb/	→	<mazgaba>	‘file’

Vowel length is another useful strategy for loanword adjustment. A loanword with a short vowel in the source language gets changed to a longer vowel version in the recipient language (Hadiyyisa) since Cushitic languages are noted for their vowel length. The example in (20) shows how vowel length affects phonological adjustment in Amharic loans.

(20)	Amharic		Hadiyyisa	Gloss
	ሰጥን /sat'in/	→	<saaxina>	'box'
	ሰሙና /samuna/	→	<saamuna>	'soap'
	ሱፍ /suf/	→	<suufa>	'wool'
	ሰሌን /səlen/	→	<saleena>	'straw mat'
	ካሮት /karot/	→	<kaaroota>	'carrot'

Short vowels are generally substituted long vowels in contexts where both the source and recipient languages include vowels, as in *saamuna* < *samuna* 'soap', *muuza* < *muz* 'banana,' and so on. Only in the word middle position does vowel length exist in Hadiyyisa. When vowel length adaptation is used, loanword adaptation verifies this pattern.

The vowel-glottal-vowel (/vʔv/ <v'v>) pattern word is used to adapt words from the source language that end in a vowel. In the source language (English), loanwords like *joomeetire'e* 'geometry' and *digire'e* 'degree' end in the vowel /i/. As a result, when these words are borrowed into Hadiyyisa, they are adapted in word-final position by the /vʔv/ <v'v> pattern. Amharic loanwords that end in the vowel /i/, on the other hand, are modified in Hadiyyisa by altering the word's final vowel /i/ to /e/. In Hadiyyisa, the vowel /i/ does not appear in a word-final position. Hence, in Hadiyyisa, the word-final /i/ of the source language is substituted with the front vowel <e>, as illustrated in (21).

(21)	Amharic		Hadiyyisa	Gloss
	ስሙኒ /simuni/	→	<sumune'e>	'¼ of birr'
	ባልዳ /baldi/	→	<baalde'e>	'bucket'
	ሲኒ /sini/	→	<siine'e>	'coffee cup'
	ትሪ /tiri/	→	<tire'e>	'large plate'
	ገሪ /gari/	→	<gaare'e>	'carriage'

### Consonant adaptation

The Hadiyyisa phonemic inventory lacks the phonemes /p/, /s'/, /v/, /ʒ/ and /ɲ/. As a result of lexical borrowing through school textbooks, these phonemes were introduced into Hadiyyisa. The sound /ɲ/ <ny> is rare in Hadiyyisa phonology, appearing only in a few instances. Non-native consonants (/p/ <p>, /v/ <v>, /s'/ <ts> and /ʒ/ <zh>) were written in the target language (Hadiyyisa) without replacement (see Handamo, 2017: 206). Consider example (22).

(22)	Hadiyyisa	Source language	Gloss
	<pirootoona>	Eng.	'proton'
	<vaayiresa>	Eng./Amh.	'virus'
	<yunveriste'e>	Eng.	'university'
	<tsaaloota>	Amh.	'prayer'
	<televiizhina>	Eng./Amh.	'television'

In loanwords, the consonants /p/ and /v/ appear frequently, whereas the consonants /s'/ and /ʒ/ appear infrequently. Even loanwords with the consonants /s'/ and /ʒ/ could occur in free variation. Non-native consonants appear to be preferred in the written form of the language.

### Adaptation of consonant clusters

Word initial consonant cluster is impermissible in Hadiyyisa. As a result, initial *cc* consonant clusters in English loanwords are adjusted in the Hadiyyisa phonological system by inserting a syllable consisting of a glottal stop and /i/ word-initially, as in (23).

(23)	<isfeera> /ʔisfeera/	‘sphere’
	<iskuweera> /ʔiskuweera/	‘square’
	<islayida> /ʔislajida/	‘slide’
	<ispoorta> /ʔispoorta/	‘sport’
	<istaatistika> /ʔististika/	‘statistics’
	<isteeshinare’e> /ʔisteefinareʔe/	‘stationary’

The word-initial insertion of /ʔi/, which is represented by <i> in the orthography, adjusts the word-initial *sf-*, *sk-*, *sl-*, *sp-*, and *st-* consonant cluster in English, just as it does in (23). Though the orthographic transcription of the glottal stop in the word-initial position does not reflect this, Hadiyyisa words always begin with a consonant. In the Hadiyyisa spelling, the glottal stop is not marked in the word-initial position.

### 3.2.1.2. Superfluous borrowing and parallel terms

During the designation of concepts, some loanwords are superfluously borrowed from source languages in the presence of genuine words in the target (Hadiyyisa) language. In Table 3, compare English or Amharic loanwords to genuine Hadiyyisa words:

Table 3. Superfluous borrowing from English/Amharic

Loanword	Source language	Genuine word	Gloss
<heeksaagoona>	English	<lohmidaado>	‘hexagon’
<fartilaayzeeshiina>	English	<xanqo’o>	‘fertilization’
<lingustiika>	English	<suu’m sorooba>	‘linguistics’
<sentaaksa>	English	<sheeqqa’l hayyo’ooma>	‘syntax’
<tekniika>	English	<googo>	‘technique’
<qalama>	Amharic	<hagara>	‘color’
<paaralala>	English	<lalamme’e>	‘parallel’
<persenta>	English	<anga> <sup>11</sup>	‘percent’
<tiraansiileeshina>	English	<tirato>	‘translation’

Semantically, some newly developed Hadiyyisa terms occur in parallel, expressing the same notion. It can be found in native words or phrases as well as loanwords. As a result, there would be inconsistencies in the representation of a single concept. The occurrence is either in native words or phrases or in loanwords. It would result in inconsistencies in representing a single concept. Such type of parallel designation of concepts could potentially lead to difficulty in language standardization.

Instructors from Wachemo University (WU) and Hosanna Teachers Training College (HTTC) provided examples<sup>12</sup> of the parallel designations that have been used by different authors and instructors as shown in Table (4).

<sup>11</sup> The term <anga> has also the homonymous meaning of ‘hand’ in addition to the meaning of ‘percent’ in Hadiyyisa.

<sup>12</sup> The data are summarized from the open-ended questionnaires filled by instructors at Wachemo University and Hosanna Teachers Training College.



Table 4. Parallel terms in Hadiyyisa

English	Hadiyyisa term 1	Hadiyyisa term 2	Hadiyyisa term 3	Hadiyyisa term 4
strategy	<istiraateeje'e>	<qaanqa>	<qoorooma>	<bilaato>
technique	<tekiika>	<googo>	<qaanqa>	<qoorooma>
observation	<moochcha>	<daadeeshsha>	<wollishsha>	<laseeshsha>
conflict	<woca>	<atanaachcha>	<tamakasa>	<tukuro'o>
conclusion	<shuuyyisimma>	<muccusimma>	<farshimisimma>	<goollo'o>
study (research)	<sorooba>	<saarayya>	<qananaachcha>	
listening	<macceesimma>	<qalbinne macceesimma>	<caqasimma>	
for example	<kobi'lishshina>	<heregisina>	<qooccisina>	
south	<dabuuba>	<sawuza>	<woroo'n qara>	
model	<moodeela>	<kobi'la>	<labiso'o>	
behaviour	<aalo'o>	<haalata>		
abstract	<xumo'o>	<fooco'o>		
background of the study	<shooto'i sawwite>	<lugumo>		
statement of the problem	<hawwi kijibo'o>	<hawwo caakkishsha>		
research design	<saarayyi sheeqara>	<saarayyi qoocca>		
tales	<yanna>	<heesso>		
personal narratives	<gaqqi aganna>	<heechchi aganna>		
oral poetry	<saga'l gixo'o>	<saga'l usha>		
blending	<qaashimma>	<edansimma>		
framework	<dabo'o>	<xinto'o>		

In Table (4), the first five terms are designated by four different terms, whereas another five terms are designated by three parallel terms. In the same table, ten English terms are given two alternative terms in Hadiyyisa. The data show that in newly developed Hadiyyisa terms, there is no one-to-one correspondence between concept-term relationships.

In addition to instructors' data, the evidence from written sources has also indicated the parallel designation of Hadiyyisa terms that could affect standardization. Consider table (5).

Table 5. Parallel designation in Hadiyyisa modules

English	Hady 201 Cognitive Dev't & Literacy Skills	Hady 212 (Lang & Ling)	MT 222 (Reading & writing skills)	MT 224 (Listening & speaking skills)
phoneme	<sagachcho>	<xaalsagachcho>	<sagachcho>	<sagachcho>
phonetics	<sagachchci qoocca>	<sagachcha'i sorooba>	-	-
phonology	<sagachcha'i hayyo'ooma>	<sagachcha'i hayyo'ooma>	<sagachcha'i qaasho'o>	<sagachcha'i hayyo'ooma>
morphology	<xiinxal hayyo'ooma/ sagal qoocca>	<xiinxal hayyo'ooma>	<somo'i qoocca>	<sagal hayyo'ooma>
syntax	<xuunsammi woc sheeqqara>	<sheeqqal hayyo'ooma>	<xuunsammi woc sheeqqara>	<sagalluwwi sheeqqara>
semantics	<tiraxxi hayyo'ooma>	-	<tiraxxi hayyo'ooma>	<sagal tirattuwwa>
discourse	<xum sawwite awwaaxximmi hayyo'ooma>	<suume awwaaxxakkamisa>	<xum sawwite awwaaxximmi hayyo'ooma>	-
pragmatics	<xuunsammi woc awwaaxximmi hayyo'ooma>	-	<xuunsammi woc awwaaxximmi hayyo'ooma>	<suume aagukkisinne awwaaxxinmma>
intonation	<sagachcha'i firdilla>	<firdilla>	<sagachcha'i ki'immaa dillimmaa>	-

The data in Table (5) show that there are discrepancies in the designation of concepts in the Hadiyyisa language. The discrepancies might occur as different writers follow their own diction during the module development. Even within a module, there are alternative terms. For instance, different terms are designated for the concept 'morphology' as <xiinxal hayyo'ooma> 'of morpheme study' and <sagal qoocca> 'of word shape' in the course Hady 201.

Some of the terms are less economic for they are expressed at the phrasal level. For instance, the terms for 'pragmatics', are designated by lengthy expressions. One of the language instructors at Wachemo University has reported that he uses the term <qaanqa> for the concept of 'pragmatics'.<sup>13</sup> This term is relevant and economic, for it has been used in the language to refer to 'the way language is used in a given context'. Similarly, the terms for 'intonation' have been named by three different expressions: <sagachcha'i firdilla/ firdilla/ sagachcha'i ki'immaa dillimmaa>. From the alternative designations, the first and third options are unnecessarily long, whereas the second option is economic and communicates the concept precisely. This second option, i.e., <firdilla> 'intonation' is used in Grade 1-8 textbooks.

Instructors at the college have also shared that the occurrence of parallel designation negatively affects the standardization of the Hadiyyisa language. One of the college instructors said the following:

There is even a terminology difference for a concept between HTTC and WU. For instance, in our college, the term for 'plot' in the literature course is designated as *iho'i tukite* 'flocking of events'

<sup>13</sup> Interview with instructor C, March 30, 2021, Hossana, Wachemo University.

whereas others call it *aganni saassaaro* ‘backbone of history’. In such circumstances, students may get confused by the different designation of terms when they join Wachemo University. Consistency should be maintained for language standardization. (Interview with instructor E, March 31, 2021).

As seen in the quote, the participants confirm that there is a problem of naming a single concept by different terms. This opens the door for the designation of different terms for a single concept by different institutes (HTTC and WU) since there is no terminology standardization institution for Hadiyyisa language. As shown in Table (5), there is inconsistency of terms even within an institution across different teaching modules and materials.

This kind of concept designation calls for the harmonization of terms to mitigate standardization problems. To minimize such terminology problems, following term formation principles such as economy, consistency, derivability, etc. are vital in fixing the problems. Hence, terminology planners could follow such principles and criteria to come up with standard terminology in the language.

### 3.2.1.3. The source languages for lexical borrowing

#### a) Direct loanwords in Hadiyyisa

The most common sources of borrowing for Hadiyyisa lexical enrichment are English and Amharic. Amharic served as an intermediary language for the majority of English loanwords. The fundamental reason for this is that, in comparison to Hadiyyisa, Amharic had much more time to be developed in formal domains. In other words, Amharic expanded its lexicon to include primarily English loanwords for various scientific and technological notions. Amharic served as a model for other Ethiopian languages like Hadiyyisa as it developed as a language of administration, media, and instruction. As a result, Amharic has been used to incorporate the bulk of foreign loanwords (such as English, Italian, and French) into Hadiyyisa. Apart from the position of Amharic as an intermediary language, educated bilinguals can be seen introducing English loanwords into Hadiyyisa, especially in the development of school textbooks (cf. Handamo, 2017).

Arabic is another direct source of lexical borrowing in Hadiyyisa lexical enrichment. The reason for the direct borrowing had a connection with the historical situation between the Hadiyya people and the Arabs and their religion, i.e., Islam. The Hadiyya people first came into contact with Arabs at the beginning of the seventh century. This led to their acceptance of Islam and the eventual establishment of the Hadiyya Islamic state between the 10th and 12th centuries following a significant period of contact (Kemiso and Handamo, 2010). Thus, many Arabic loanwords are likely to have entered Hadiyyisa due to the resulting cultural contact. Although some Arabic loanwords are present in both Amharic and Hadiyyisa, some are found only in Hadiyyisa. This demonstrates that there is direct and indirect borrowing of lexical items from Arabic into Hadiyyisa. The examples in (24) describe the Arabic direct loanwords in Hadiyyisa.

(24)	Arabic		Hadiyyisa	Gloss
	/ʔal ʔaħira/	→	< <i>aheera</i> ’a>	‘kingdom of god’
	/ajam/	→	< <i>ayyaamo</i> >	‘day’
	/dzimat/	→	< <i>Jimaata</i> > <sup>14</sup>	‘Friday’
	/dzinn/	→	< <i>jina</i> >	‘spirit’
	/kataba/	→	< <i>kitaabe</i> >	‘write’
	/k’ahwa/	→	< <i>qaawwa</i> >	‘coffee’
	/subh/	→	< <i>suphe</i> ’e>	‘early morning’
	/tum/	→	< <i>tuma</i> >	‘garlic’
	/ʕumr/	→	< <i>umura</i> >	‘age’

<sup>14</sup> In Hadiyya, the Arabic word *jimaata* and the Amharic word *Harba* < ሃርባ *ʔarb* are used interchangeably for the term ‘Friday,’ especially in spoken form. The Amharic loan (*Harba*) is employed in written forms.

In Hadiyyisa and Amharic, certain Arabic loanwords can be found. In this case, it is difficult to show the direction of borrowing for Arabic loanwords that appear in both languages. Some Arabic loanwords that appear in both Amharic and Hadiyyisa are listed below.

Table 6. Arabic loanwords both in Hadiyyisa and Amharic

Hadiyyisa	Amharic	Gloss
<akiima>	ሀኪም /hakiim/	‘physician’
<alkoola>	አልኮል /ʔalkool/	‘alcohol’
<hanqa>	ሀቅ /həkk’/	‘truth’
<jabana>	ጀበና /dʒəbəna/	‘jug or kettle of coffee pot’
<kiisa>	ኪስ /kis/	‘pocket’
<maqasa>	መቀስ /mək’əs/	‘scissors’
<miiizaana>	ሚዛን /mizān/	‘balance’
<sa’aata>	ሰዓት /səʔat/	‘watch’
<woraqata>	ወረቀት /wərək’ət/	‘paper’
<zayita>	ዘይት /zəyit/	‘oil’

#### b) Indirect loanwords in Hadiyyisa

Some loanwords were directly borrowed into Hadiyyisa from source languages, while others were borrowed indirectly through intermediary languages. In this case, Amharic played a significant role because it was used as a medium of instruction (at the primary level), and a language of administration across Ethiopia until 1991. As a result, Amharic has become the primary source of foreign loanwords in Hadiyyisa. For instance, several scientific and technological terms in English are generally adopted into Hadiyyisa via Amharic, as in (25).

(25)	Amharic		Hadiyyisa	Gloss
	ፖታሲየም /potasiyäm/	→	<potaasiyeema>	‘potassium’
	ክሎሪን /kilorin/	→	<kilooriina>	‘sulfur’
	አሜባ /ʔameba/	→	<ameeba>	‘amoeba’
	ቫይረስ /vayirəs/	→	<vaayiresa>	‘virus’
	ኮምፒውተር /kompiyutər/	→	<kompiyuutera>	‘computer’
	ቴክኒክ /teknik/	→	<tekniika>	‘technique’

The Italian loanwords were also borrowed into Hadiyyisa via Amharic, as seen in (26).

(26)	Amharic	Source language		Hadiyyisa	Gloss
	ቦረንዳ /bərānda/	veranda	→	<baranda>	‘veranda’
	ቦርሳ /borsa/	borsa	→	<borsa’a>	‘bag’
	ካሚዎን /kamiwon/	camion	→	<kaame’e>	‘car’, ‘lorry’
	ፖስታ /posta/	posta	→	<poosta’a>	‘post’
	ሲባጎ /sibago/	spago	→	<sibaago’o>	‘string’
	ታሪፍ /tarif/	tariffa	→	<taariifa>	‘price, rate’

The majority of Italian loanwords are borrowed via Amharic due to the historical status of Amharic in Ethiopia (see 3.2.1.3b for details). However, Hadiyyisa borrowed terms like <abokaato’o> ‘lawyer’

(<*avvocato*>) directly from Italian<sup>15</sup> in some instances. In such cases, it is easier to identify the direction of borrowing.

Hadiyyisa has also used Amharic to borrow French loanwords indirectly since French is the other notable source of loanwords for Amharic vocabulary expansion. The following are instances of French loanwords that entered Hadiyyisa via Amharic.

(27)	Amharic	Source language		Hadiyyisa	Gloss
	ሸሚዝ /ʃəmiz/	<i>chemise</i>	→	< <i>shamiiza</i> >	‘shirt’
	ቢሮ /biro/	<i>bureau</i>	→	< <i>biiro</i> ’o>	‘office’
	ካሴት /kasset/	<i>cassette</i>	→	< <i>kaaseeta</i> >	‘cassette’
	ክራሽት /kiravat/	<i>cravate</i>	→	< <i>kiraabaata</i> >	‘tie’
	ኮሚቴ /komite/	<i>comité</i>	→	< <i>komiite</i> ’e>	‘committee’

### 3.2.2. Loan translation

Loan translation, also known as *calquing* or paraphrasing, is another effective way of vocabulary enrichment in Hadiyyisa. It is the process of inventing new words by translating the meanings of foreign words into the target language (Van Huyssteen, 2003). Loan translation can be divided into literal (word-for-word translation) and conceptual types (Sager and Nkwenti-Azeh, 1989).

#### 3.2.2.1. Literal loan translation

The major sources for the method of loan translation in Hadiyyisa are English and Amharic. It can be difficult to identify whether the source language is Amharic or English when translating some terms. It is impossible to overestimate the importance of English as an international language or as a language of science and technology in the development of Ethiopian languages (Handamo, 2017). Consider examples<sup>16</sup> in Table (7) for literal loan translation in Hadiyyisa.

Table 7. Literal loan translation from English into Hadiyyisa

English term	Literal loan translation	Gloss
full stop	< <i>uull-ishshi mare’e</i> > stop-CS mark	‘of stop mark’
infinite set	< <i>tungi bee’i wixxite</i> > end less set	‘infinite set’
intersecting point	< <i>ed-anchi tako’o</i> > intersect-NMZR point	‘intersecting point’
life cycle	< <i>heechchi do’o</i> > of life cycle	‘life cycle’
definite article	< <i>la’ammi inkiinnisaancho</i> > known specifier	‘definite article’
language change	< <i>suu’m dabassamcha?</i> > of language alteration	‘language change’
code-mixing	< <i>suume hamaarimma</i> > language mixing	‘code mixing’

Amharic is also used as a source for literal loan translation to expand the Hadiyyisa lexicon, in addition to English. The Amharic designation is used to describe concepts in mathematics, environmental science, language, and other fields, as stated in Table 7. Until 1991, Amharic was the

<sup>15</sup> There are also possibilities for the direct borrowing of Italian loanwords into Hadiyyisa for some terms listed in (26).

<sup>16</sup> The examples are taken from Hadiyya-English Dictionary (1996) and Hadiyyisa Modules.

primary language of instruction in Ethiopia, notably in primary schools. This has contributed to the development of Hadiyyisa terms via literal loan translation from Amharic, as in Table (8).

Table 8. Literal loan translation from Amharic into Hadiyyisa

Term	Amharic loan	Literal loan translation in Hadiyyisa	Gloss
minute	/k'alə gubaʔe/	<dummichchi sagara>	'of meeting word'
question mark	/t'iyak'e milikkīt/	<xa'michchi mare'e>	'of question mark'
whole number	/mulu k'ut'ir/	<wo'm xigo>	'full number'
green plants	/ʔarənguwaɗe təkilott/	<shaano'i mutaano>	'green plants'
windpipe	/yəʔayyər bʷanbʷa/	<ayya'l boomba>	'wind pipe'
large intestine	/tillik'u ʔandʒət/	<lob hilleenna>	'large intestine'
rift valley	/sint' fələk'o/	<surixxi cebba>	'of lowering valley'

### 3.2.2.2. Non-literal (conceptual) loan translation

Another method of loan translation in the context of terminology formation is a non-literal translation from English to Hadiyyisa. In Hadiyyisa, the key concept is represented in this way by grouping lexical components, as seen in the examples<sup>17</sup> below:

(28)	Term	Non-literal loan translation	Gloss
	comma	<giphite mare'e> pause mark	'mark of pause'
	sociolinguistics	<minaadaphphi suu'm saayinsa> of people mouth science	'science of language of society'
	pidgin language	<qo'anammi suume> mixed mouth	'pidgin language'
	elision	<sagachchi xuuxamcha> of sound be.swallowed	'elision'
	simple future	<sholle'aalli hanaara> simple future.coming	'simple future'
	code shifting	<suume bikkimma> mouth substituting	'code shifting'
	code-switching	<suume korataachcha> mouth turning	'code switching'
	transcription	<weeshaxxisa kitaabimma> pronunciation writing	'transcription'

As discussed earlier, in Hadiyyisa literal and non-literal loan translations are employed in word-formation. From the two strategies, the use of non-literal loan translation reduces the possible misunderstanding of the created expressions for mother-tongue speakers. Here, meaning, not word-for-word form is translated.

## 4. Conclusions and Recommendations

The status of Hadiyyisa in higher educational institutions paved the way for its lexical enrichment and modernization. To facilitate scientific communication, newly emerging concepts were designated different terms in the language. Internal and external language resources were used as lexical/terminological development strategies for Hadiyyisa. Derivation, semantic transfer, and

<sup>17</sup> Data sources: Hady 201, Hady 212, MT 222, and MT 224.

compounding are frequently used strategies of lexical enrichment via language-internal mechanisms, whereas abbreviation and blending are less common. In Hadiyyisa, the most productive language external means of lexical enrichment are borrowing and loan translation. Superfluous borrowings and parallel designation of native words and loanwords have been attested within Hadiyyisa lexical enrichment mechanisms. This implies that there is a need for establishing the center for Hadiyyisa language standardization that includes responsible bodies for solving language-related problems and leading the terminology development and standardization of the language.

Superfluous borrowings need to be ruled out as lexical expansion techniques, and they have to be substituted with equivalent native Hadiyyisa words. Furthermore, by prioritizing language-internal sources, the parallel use of loanwords and native counterparts must be standardized.

As a short-term goal, the Hadiyya zonal administration could form a language standardization committee, which might serve as the basis for the establishment of Hadiyyisa Language Academy in the long run. The council should include experts from a variety of fields, including physics, mathematics, literature, linguistics, and the media (e.g. radio and TV programs). In consultation with linguists, the Hadiyyisa language standardization committee should design principles and standards that foster and guide language standardization and development activities. Experiences could be shared from other Ethiopian languages such as Amharic, Oromo, and Sidama for lexical and terminological enrichment.

The standardization committee may also consider the following goals: developing and standardizing new terminology, preparing general and particular purpose dictionaries, and encouraging schools, colleges, and universities to adopt recommended standard forms. Furthermore, the usage of new phrases on the media should be encouraged, and literary works should be rewarded with awards honoring the authors. They could also conduct follow-up and problem-solving activities following the execution of the proposed standard form.

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