

**ADDIS ABABA UNIVERSITY**  
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**ASSESSMENT ON THE STANDARDS AND  
USES OF TIGRINYA DICTIONARIES**

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OF TIGRINYA DICTIONARIES**

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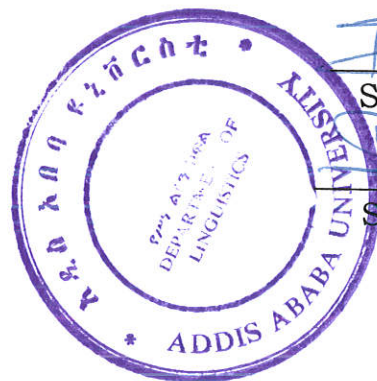
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## Abstract

Dictionaries are very essential in our everyday professional life. They provide us with valuable lexical information and are crucial reference/resource materials across all disciplines. Thus, upholding of their standard/quality and use appears to be paramount important in order to suit the needs of intended users. However, little or no empirical research has been done so far about the qualities and uses of Tigrinya dictionaries. The main purpose of this study is then to assess and describe the standard and uses of some selected Tigrinya dictionaries in the light of current theories and principles of lexicography. The total sample subjects are six Tigrinya dictionaries, three compilers, and hundred five Tigrinya-major students and ten Tigrinya teachers, from Addis Ababa and Mekelle Universities. Convenience sampling technique was used to select the dictionaries and the compilers, and systematic sampling technique to select the students, teachers, and the main entries from the dictionaries. For an overall look at some aspects of the dictionaries, purposive technique was also applied. Regarding data collection instrument, questionnaire (for the students and teachers), an interview (for the compilers), and a document/content analysis (for evaluation of the dictionaries) were used. The data obtained through these instruments were analyzed and interpreted in qualitative (in tables, graphs and descriptions) and quantitative (frequency distribution) methods as necessary. The overall result of the study shows the selected dictionaries lack principles and methods of lexicography. They are perceived nonstandard and are under utilized. The compilers of these dictionaries lack adequate experience and training on dictionary compilation. The study, therefore, implies Tigrinya dictionaries have to maintain the required properties/qualities of a standard dictionary. Compilers of such dictionaries need to attain necessary knowledge and skills of dictionary compilation, and training is required to users and the authors.

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## Lists of Acronyms/Abbreviations and Symbols

AAU.....	Addis Ababa University
BLD .....	Bilingual Dictionary
BLGP .....	Bilingual general purpose dictionary
BLSP.....	bilingual specific purpose dictionary
LISAN.....	<b>Lisan:</b> English Tigrinya Dictionary by Daniel Teklu (2001 E.C)
LISANE- AG'AZI .....	<b>Lisana Ag'azi:</b> Mäzgäbä k'alat Tigrinya by Girmatsion Mebrahatu (1976 E.C)
MIRAS.....	<b>Miras:</b> Tigrinya-English Dictionary by Daniel Teklu (2000 E.C)
MLD .....	Monolingual Dictionary
MLGP .....	Monolingual General Purpose Dictionary
MLSP.....	Monolingual Specific Purpose Dictionary
MTD .....	Monolingual Tigrinya Dictionary'/Mäzgäbä k'alat tigräñña bitigräñña by the Ethiopian language Academy (1989 E.C)
MU .....	Mekelle University
NAS'LLA .....	<b>Nas'lla:</b> Mäzgäbä qälät Tigrinya by Gebre-Egziabher Bihon (1987 E.C)
SABA .....	<b>Saba:</b> English-Tigrinya-Amharic Dictionary by Rahel Yeshit'la (1996 E.C)
TLD .....	Trilingual Dictionary
I1 .....	First Interviewee
I2 .....	Second Interviewee
I3 .....	Third Interviewee
L1 .....	First Language
L2 .....	Second Language
+ .....	Presence of Criteria (Category Is Available)
± .....	Category/ Criteria Is Not Fully Available
- .....	Nonexistence/Absence of Criteria or Category

## CHAPTER ONE

### 1. INTRODUCTION

This thesis is an attempt made to address the major theoretical and practical problems in compiling and using Tigrinya dictionaries. This chapter comprises its introductory sections. It encompasses six sections. The first section attempts to demonstrate the background of the study. The second section deals with the statement of the problem /research questions, followed by discussion on objectives of the study, survey of related literature and significance of the study. It also provides the methodology and the variety of data collection techniques and the research samples that are employed in the study.

#### 1.1. BACKGROUND OF THE STUDY

Tigrinya is a Semitic language spoken in Tigray region of Ethiopia and the highlands of Eritrea as a mother tongue. It is classified under the north Ethio-Semitic sub-phylum and is grouped with Giiz and Tigre<sup>1</sup> which share many linguistic features (Bender et al, 1976, Tesfay, 2002).

In terms of number of speakers, Tigrinya is the third major language in Ethiopia after Amharic and Afan Oromo. In Eritrea, it is a major language. It is also assumed to be one of the widely spoken Semitic languages after Arabic and Amharic (Bender et al 1976: 107, Daniel, 1998:48). According to the Ethiopian population and housing census 2007, Tigrinya is spoken by 4,314,456 in Tigray alone.

When we see its literary tradition, it has relatively long history after Geez and Amharic using the Ethiopic script (Zealealem, 2005:1). The oldest written text in Tigrinya is that of local laws found in the district of 'Logosarda', in Akeleguzay (southern Eritrea) in the 13th century (Daniel, 1998:45).

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<sup>1</sup> Tigre is a Semitic language spoken in the lowland areas of Eritrea.

When Eritrea was under the occupation of Italy (1890-1941) and the British (1942-1952) Tigrinya has become relatively a language of literacy in which Magazines and books were produced. The first newspaper written in Tigrinya appeared in Eritrea in 1942. When Eritrea joined through federation with Ethiopia in 1958, Tigrinya was replaced by Amharic. While Amharic played a major role, Tigrinya remained mainly as a spoken language until the 70s in Tigray (Zealalem, 2005; Amanuel, 1982; Daniel, 1998; and Mekonnen, 1998).

After the downfall of the Derg regime, Tigrinya retained the status of 'major working language' both in Eritrea and in Tigray. In this regard, Zelealem (2005:1) said:

There are at least two main features that make Tigrinya different from the rest of Ethiopian languages that have been brought to school almost at the same time. The first is its relatively long literary tradition which dates back to the 19th century using the Ethiopic writing system. The second is its use for elementary education by the TPLF army before the introduction of the 1991 constitution which guarantees the right of ethnic groups to use their respective languages as medium of instruction in primary schools.

Therefore, nowadays Tigrinya is a de-facto national official language in Eritrea and a regional official language in Tigray (Tesfay, 2002, Daniel, 1998 and Mekonnen, 1998). It is used as a medium of instruction in primary schools both in Tigray and Eritrea since 1991. It is also given in higher institutions: at diploma level in teacher training colleges (Abbi-Addi, Mekelle and Adwa) and at degree levels in Mekelle, Asmara and Addis Ababa Universities.

Concerning to Tigrinya dictionaries which is the main focus of this study, the publication of bilingual dictionaries precedes monolingual dictionaries. This is a common phenomenon in most African languages due to colonialist and missionaries' interest of writing Biblical and religious texts. As it is presented in more detail in chapter two section 2.2.1.3 the earliest Tigrinya work on the lexicon is that of Salt's (1814) "English

Tigre lexicon<sup>2</sup>. He includes a glossary of Tigrinya words in his book entitled "A vogue to Abyssinia and Travels into the interior of that country" using the Latin script and he was the first person who deals with Tigrinya lexicon (Hailu, 1981).

Dictionaries are affecting our everyday life and hence attention is being given to their compilation and evaluation. All language professionals, whether they are translators, interpreters, teachers, learners, journalists, editors and so on, use dictionaries several times a day. It is therefore in their interest to use dictionaries efficiently. Thus, efficient dictionary use implies obtaining the expected results and accomplishing the lookup process in the shortest period of time possible.

According to Roberts (1997), to be able to use dictionaries efficiently, one has to know (i) the diverse categories of information that can be found in dictionaries, (ii) the overall ordering of these categories, (iii) kinds of dictionary, and (iv) the detailed categories of information found in different dictionary types. These aspects are crucial for a standard dictionary written by professional lexicographers. A growing awareness of the dictionary user can clearly be seen in the literature such as in Winkler (2001), Lew (2004a), Hartmann (1999), and so forth. Stein (1984:4) as quoted in Hartmann (2003:277) said, "Dictionaries are obviously written for their users. We therefore need much more research on the dictionary user, his needs, his expectations, and his prejudices." Hartmann (1987:11) as cited in Winkler (2001) likewise said, "There may be a mismatch...between the information provided by the dictionary maker and the help required by the dictionary user." In these circumstances it seems appropriate that lexicographers should work toward improving the dictionaries as well as improving the user's skill via providing new reference sources designed to meet specific needs of the users.

A number of empirical studies have been conducted focusing not only on the linguistic content and structure of dictionaries but also on their users (Poulet, 1999, Nesi, 1999;

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<sup>2</sup> Salt (1814) uses the name 'Tigre' instead of the Proper name 'Tigrinya'. Perhaps he was not aware the two terms are distinct.

Hartmann, 1999; Lew, 2004a). Their findings altogether have helped to make such dictionaries more user-friendly by exploring particular problems of the users.

Winkler (2001) argued that, "Only by finding out more about how dictionaries are actually used, we will be able to create better reference books and gain enough information to enable us to effectively teach learners dictionary skills". Thus, dictionary compilation is a highly complex task which requires the involvement of many more researchers. Lexicographers should have enough information about the users' skills, level, attitude, habits, and so on, to allow them to make changes in their dictionary design or to guide them as decision-making steps (Landau, 2001 & Lew, 2004a).

In Ethiopia, we still do not have enough information about what happens when dictionaries are compiled because little or nothing is known about how dictionary users go about finding their way in these valuable sources of lexical information. Dictionary as a learning and teaching tool seems to be a fairly new area of research in our country. Therefore, dictionary usage and dictionary evaluation are areas where little is known and much should be improved. To be specific, the writer of this paper feels that many individuals who compiled Tigrinya dictionaries lack appropriate skills of dictionary compilation and hardly receive any training. Consequently, the dictionaries that are in use so far are poorly compiled and underutilized. Therefore, research is vital to evaluate the weaknesses and strengths of these dictionaries. In this regard Bartholomew & Louise (1983:249) wrote the following:

Evaluation of a dictionary is an important step toward arriving at an adequate treatment of both the semantic and grammatical aspects of it. The linguistic consultant can provide the objective viewpoint of an outsider. He is in a position to make preliminary evaluation and to suggest the kinds of things --- need to include... If the input of the consultant can be distilled into general principles rather than remaining at the level of unfocused criticism, such principle can guide the compiler in his further work on the project. These principles also serve as background and precedent for decisions on future dictionaries in the series. Such distinction also elevates the evaluation process above mere nitpicks.

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Knudsen and Sommerfelt cited in Bejoint (1994:171) also declared that “-- it is time to take up a systematic study of the lexicographical principles which ought to be followed.” These principles include consistency, completeness, conciseness; clarity of entry term; pronunciation, and so forth (see details in chapter two).

Generally, this paper will try to assess the standards and uses of Tigrinya dictionaries using an assortment of lexicographical principles developed by different scholars such as Atkins and Rundell (2008), Hartmann (2003), Landau (2001), Bejoint (1994), Crystal (1987), Ilson (1985), Bartholomew & Louise (1983), Lew (2004a, 2007), and so forth.

## 1.2 STATEMENT OF THE PROBLEM

As pointed out above in recent years, dictionary editors and lexicographers like Hartmann (1999, 2003), Ilson (1985), Kinpher (1984), Landau (2001), and Bejoint (1994/2000) and so on, have increasingly emphasized the role of dictionaries as a source of lexical information for various purposes like language learning, translation, interpretation, and the like.

Hartmann and James (1998) argued that (See the backside cover page of the book):

Dictionaries are among the most frequently consulted books, yet we know remarkably little about them. Who makes them? Where do they come from? What do they offer? How can we evaluate them?

This quotation contains key research questions and several empirical researches have been conducted on both dictionary evaluation and on dictionary use mainly in Europe and USA. For example Hartmann (1999), Lew (2004a), and so on, have done empirical research in higher educations of European Universities. In Ethiopia, however, little or no empirical research has been done so far. Specifically little attempt has been made to the study of Tigrinya dictionaries except one Senior Essay written in Amharic in one dictionary and few articles about experience of compilers as discussed in the literature review below. Prinsloo et al. (2000) stated that “African dictionaries lack proper lexicographical planning and empirical research.” And hence such a worthwhile research deserves to be conducted in the African continent at large.

Gouws (1990) quoted in Prinsloo et al (2000:239) also said:

The majority of dictionaries for African languages are the product of limited lexicographical achievement--- with a few exceptions these dictionaries offer only restricted translating equivalents [bilingual] and reflect a complete lack of lexicographical planning.

This implies that research is needed to handle the existing problem via exploring the strengths and weaknesses of the dictionaries. Hence, the present study which can be considered as preliminary attempt is the first of its kind. It aimed to make a critical assessment on the qualities and uses of six selected dictionaries in the language under investigation. Specifically the following basic questions will be central to the study:

- a) How does the standards of Tigrinya mono-, bi-, and tri-lingual dictionaries look like?
- b) What are the prominent/ major problems affecting the standards/qualities of these dictionaries?
- c) How is the usefulness of these dictionaries to the users or to the public?
- d) What measures should take place in order to improve the standards and uses of the dictionaries?

### **1.3 OBJECTIVES OF THE STUDY**

The main objective of the study is to describe, evaluate and assess the standards and uses of some six selected dictionaries in the light of current theories and principles of lexicography. In addition to the objective evaluation of the dictionaries via selected criteria, an attempt is made to assess their use through eliciting data from users and authors. In general, the aim of the present study can be stated as follows:

- a) To evaluate the standards of Tigrinya dictionaries in the light of modern lexicographical theories and principles.
- b) To investigate the uses of these dictionaries and to examine how frequently University students use them.
- c) Finally, to recommend some possible ways of improving the standards and use of these dictionaries.

In general, the study critically examines the qualities of one trilingual, two bilingual and three monolingual Tigrinya dictionaries. It also critically scrutinizes the uses of such dictionaries at higher education institutions.

#### 1.4 REVIEW OF RELATED LITERATURE

Even though there is little or no empirical research done so far on the evaluation of Tigrinya dictionaries in particular and in other Ethiopian languages in general<sup>3</sup>, there are a few papers presented in various workshops and symposiums. Moreover, there are some Senior Essays written in Amharic. Most of these works are old enough as reviewed below.

In 1975 E.C, there was a symposium on how to prepare monolingual dictionaries of four languages (Amharic, Tigrinya, Oromo and Hadiya) organized by the then Ethiopian language Academy. In that symposium, Arega (1975 E.C) presented a paper on the general issues of dictionary history, typology, dictionary making and so on.<sup>4</sup> Besides Tsegay W/mariam also presented a paper that focused on the process and need of compiling Tigrinya monolingual dictionary.

In 1976 E.C Birhanu G/Tsadik wrote his Senior Essay on the evaluation of *Kəsəte Bīrhan Tasema's* monolingual Amharic dictionary. Dereje Desta (1978 E.C) also done his Senior Essay a comparative study on two dictionaries in Amharic.<sup>5</sup>

In 1978 E.C Zeray G/Egziabher wrote his Senior Essay on the evaluation of Aba Yohanns G/Egziabher's 'Tigrinya-Amharic dictionary'. In this work the author tried to present the history of the author (Aba yohanns), then the process of the dictionary compilation, its strengths, its role, and its weaknesses. Finally, he recommended for improvement 'the

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<sup>3</sup> There is only one MA thesis by kedir Ibrahim (2007) written in Afan Oromo concerning to the use/effectiveness of Oromo dictionaries in education.

<sup>4</sup> His paper was a summary of translation from Zgusta (1971)

<sup>5</sup> He compared *Kāsāte Bīrhan's* and *Desta Tekleweld's* Amharic monolingual dictionaries.

standard of the dictionary.<sup>6</sup> Elsabet (1997 E.C) wrote her Senior Essay on the evaluation of 'Merit Amharic-English bilingual dictionary'. She tried to evaluate the dictionary in terms of selected criteria like the selection of head words, definition, and pronunciation and the like. With regard to dictionary use, Amanuel (1991) wrote his senior essay entitled "Freshmen's Use of the Dictionary at AAU". He found many students are not effective dictionary users.<sup>7</sup>

The following short papers were also presented in the 'Proceedings of the Tigrinya Language Symposium' held in Mekelle in 1987 E.C.<sup>8</sup> The first paper was by Kasa and Amanuel (1998) entitled "መዝገበ ቃላት ትግርኛ" /məzgəbək'alat Tigrinya/ 'Tigrinya dictionary'. It reported the authors' experiences in monolingual dictionary compilation such as, the selection and displaying of headwords, defining, treatment of gemination, and so on.

The second paper was by Tekeste (1998) entitled "ጃንጃ ትግርኛ ንክምብል መዝገበ ቃላት ዘለዎ ግደ" /K'ank'wa Tigrinya niximibil məzgəbə k'alat zələwo gide/ 'The role of dictionaries in the development of Tigrinya'. This paper tried to show the role of dictionaries, type of dictionaries, merits and demerits of preparing dictionaries by a group and by an individual, the relationship between dictionaries and literature, and the use of dictionaries for instructional media. Though it is not detailed this paper touches various topics.

The third paper was presented by Tekie (1998) entitled "ዕድ መዝገበ ቃላት ትግርኛ" /?ijjo məzgəbə k'alat Tigrinya/ 'The process of dictionary-making in Tigrinya'. As its name implies, this paper tried to share the author's experience in the compilation of one

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<sup>6</sup> He is the first and the only one who tried to evaluate a Tigrinya dictionary though he did not follow the theory, because most of the methods and the theory of lexicography are flourishing recently.

<sup>7</sup> It seems he was the only person who tried to study dictionary use in Ethiopia

<sup>8</sup> The articles presented in that Symposium were compiled and published in 1998 (1991E.C) by the Tigray Cultural Association bureau.

monolingual (MTD)<sup>9</sup> Tigrinya dictionary. All these have some relevance for the present study.

Besides, the Ethiopian Language Research Center (ELRC) organized a ‘Workshop on Lexicography’ in April 7-8, 2006, and among the papers which are relevant for this study: Girma Awgachew’s (2006) paper on ‘Word Classes’ which discusses the role of classifying word classes in dictionary-making and the challenges that a linguist and a lexicographer may encounter in classifying words of a language. Another essential paper was by Amsalu Aklilu’s (2006) ‘Major Problems in Compiling Bilingual dictionary’. It discussed major issues in compiling bilingual dictionaries like the challenges of translating culture specific terms, choice of equivalence, etc. based on his experiences. Gebre Bzuneh’s (2006) paper also tried to show ‘The Role of IPA in Handling Pronunciation Problem in Dictionaries.’ He said that most dictionaries written in Ethiopian Languages are not good guidance to pronunciation. Gebre strongly advocates and recommends the use of IPA or adopting Ethiopian Phonetic Alphabet (EPA) to solve the problem. In general all these are some attempts on lexicography although there is no MA thesis or PhD dissertations done so far by linguists or professionals.

## 1.5. METHODOLOGY

With regard to the methodology of the study, the researcher used variety of methods and techniques. As to different scholars in academic lexicography, the methodology that best suited to lexicographical research encompasses the approaches and techniques of both qualitative and quantitative methods. For instance, McCreary (1996), McCreary and Dolezal (1998), Wiegand (1998), Tono (1998) cited in Hartmann (2003:433) distinguished and described various methods like questionnaire, comparative studies, observation, content analysis, and so on as data eliciting techniques for dictionary research.

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<sup>9</sup> Tekie was one of the compilers of ‘Māzgābāk’alat Tigrinya b+Tigrinya’ ‘Monolingual Tigrinya Dictionary (MTD) in the Ethiopian language Academy at AAU.

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Hartmann (2003:421-442), in his article, entitled “Methods in Dictionary Research” summarized the previous works and presented a thorough discussion on the different methods and principles of lexicographic research. He asserted that: it “...is possible to classify the published studies in the field of dictionary research in a number of ways, for instance, chronologically, by dictionary type, by user group or by the methodology employed.” Then he pointed out eight basic research questions<sup>10</sup> and augments each with examples from previous researches. Subsequently he distinguished and illustrated six basic data elicitation methods for dictionary research as summarized in the diagram below:

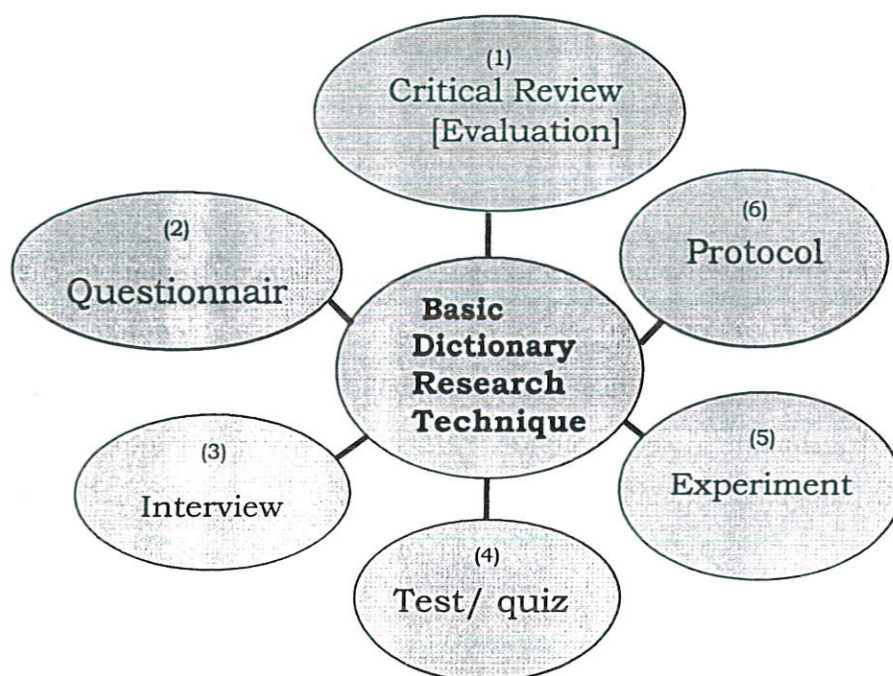


Figure 1: Basic data elicitation Methods in dictionary research, summarized from Hartmann (2003:434-437)

<sup>10</sup> Such as (i) What kinds of fields are lexicography and dictionary research? (ii) What are the historical perspectives that can be taken? (iii) What are the relevant critical perspectives? (iv) What are the structural perspectives that have to be taken in to account? (v) What are the typological perspectives to be considered? (vi) How can the user perspective be explored? (vii) What are the issues in translation oriented lexicography? (viii) What are the issues in terminological lexicography? For the comprehensive discussions of this questions see Hartmann (2003:430-433, volume III) Detailed discussions of these basic research questions is found in chapter two.

According to Hartmann (2003), '*questionnaire*' is an instrument of dictionary research that helps to survey large population of samples usually employed to assess dictionary use. '*Interview*' uses to gather objective and detailed evidence from experts or users on dictionary look-up acts. It also helps to elicit opinions on the basis of questions combined as a check list format. '*Critical review*' as technique helps to assess the quality of particular dictionary on the bases of predetermined objective criteria.

On the other hand, '*Protocol*,' as a dictionary research tool, intended to overcome the shortcomings of the above techniques through elicitation data by indirect means as opposed to direct way in questionnaire or interview and so forth. '*Experiment*' is a scientific technique in which one or more subjects are observed under laboratory by controlling various factors. Finally '*test/ quiz*' is a technique used for eliciting information on how users perform in a particular dictionary reference condition. Hence, it is a means of "measuring the knowledge and performance of a particular user or group of users in relation to achievable proficiency levels before, during and after courses on dictionary skills" (Hartmann, 2003:437).<sup>11</sup>

As pointed out above, different scholars recommend the use of combining various methods for successful lexicographic research. Therefore, the combination of the above techniques is the best valuable method in academic lexicography generally known as the '*mixed approach*' (Croswell, 2003; Dörnyei, 2007). Hence, the researcher prefers to utilize three of Hartmann's basic data elicitation methods stated in figure1 above: 'Critical review' also called 'content /document analysis' to evaluate the selected dictionaries, 'questionnaire' and 'interview' to assess the uses of the selected dictionaries.

## **I. Content/Document Analysis**

In this study Hartmann's 'critical review' /content analysis is used as the central research method for the evaluation of the selected dictionaries. Frankel and Wallen (1990:389)

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<sup>11</sup> However Hartmann's protocol, experiment and test (data collection methods) are not applied for the current study because these are time consuming and not more relevant for this type of study.

defined content/document analysis as the "analysis of the written or visual contents of a document, text books, essays, news papers, novels, magazine articles, cookbooks, political speeches, advertisements, picture.." and so on. Hence, it is a technique for making inferences by objectively and systematically identifying specified characteristics of a particular document or message.

Jackson (2001:173-178) provides a detailed discussion on the methods and principles of dictionary criticism. According to Jackson, dictionary evaluation is not like evaluation of other types of books. Initially, the evaluator ought to read some sections of the front, middle and the back matter more than once. However as to Jackson(2001) the "reviewer of a dictionary would not expect to read every word of the text: first of all dictionaries are not meant to be read like that, and usually dictionaries contain too much texts to make it a feasible undertaking." Accordingly, a dictionary evaluator must be well-informed or trained about lexicography and also should have a sound methodology that guides him/her to make an objective/critical evaluation.

Therefore, initial assessments on the standards/qualities of the selected Tigrinya dictionaries have been made based on selected criterion set in a dictionary evaluation format. The dictionaries are selected on the bases of the following criteria. (a) Easy access (in the market or in libraries) and (b) indigenous (those prepared by indigenous authors)<sup>12</sup>.

## II. Questionnaires

A questionnaire is one of the basic instruments in survey study employed to collect information that might not be attained through a direct observations. Questionnaires are essential instruments on research dictionary use. They help to collect relevant data whose

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<sup>12</sup> The dictionaries compiled by foreigners are not included in the sample because they are not available in the market. Moreover some of the dictionaries compiled by indigenous authors those not easily available in Ethiopia are excluded. Hence, the researcher employs convenient sampling technique to choose dictionaries for the current study (See the complete list of all the dictionaries in section 2.2.1.3).

collection by other methods would be difficult or unacceptable. In this regard Lew (2004a:37) asserted the following:

Questionnaires are at their best in covering the background, or context, of the dictionary consultation situations, but they are also an important source of information on those categories of data whose collection by other methods would not be an acceptable option (...) either because it would be too expensive, too intrusive on ethical grounds, or just plain impossible.

To assess the use of the selected dictionaries at universities, questionnaire were prepared based on Hartmann (1999): "Case study: The Exeter University survey of dictionary use" and by María del Mar Sánchez Ramos (2005) "Research on Dictionary Use by Trainee Translators."<sup>13</sup> There were 26 questions to be answered by Tigrinya major students at Addis Ababa and Mekelle Universities filling in the questionnaire. The researcher asked these students about their frequency of use, difficulties of use, needs, habits, preferences etc of the selected dictionaries.

Likewise, 16 questions were developed to be answered by instructors. They were asked about the use, strength and weakness of the selected dictionaries for higher education learners.

Respondents, (students & instructors) were chosen based on their recurrent use of Tigrinya dictionaries and they can provide relevant data regarding the strengths and weakness of the selected dictionaries on users' perspective.

### **III. Interview**

The researcher also interviewed three individuals who compiled four of the dictionaries under investigation. Semi-structured interview was employed; because it is suitable to elicit important data and to let the interviewee focus on certain issues.

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<sup>13</sup> Adopting questionnaire is advantageous for example, increases its reliability, validity and testability, etc. (Bryman, 2004 & Dörnyei,2007)

In this regard, Dörnyei (2007:123) write:

In applied linguistic research most interviewees conducted belong to the *semi-structured interview* types, which offer a compromise between the two extremes [*structured* and *unstructured interviewees*]. Although there is a set of pre-prepared guiding questions and prompts, the format is open-ended and the interviewee is encouraged to elaborate on the issues raised in an explanatory manner.

The compilers were interviewed about their experiences, knowledge, difficulties they face while preparing each of their dictionaries. The interview process was accompanied by tape recording with the permission of the compilers to prevent loss of information. It was done privately to allow participants speak freely about their experience on dictionary compilation. Even when an interview was being recorded, shorthand notes were kept. This allowed the researcher to continue on a conversation with the interviewee. All interviewees were extremely cooperative, showing willingness and appreciating the significance of the study. The interview lasted on average between 30-40 minutes. Thus, further information was elicited from the dictionary compilers via semi-structured interviewing.

### **III. Population Sampling and Research Location**

For an in-depth evaluation of the content of a dictionary, Robert Chapman (1977) cited Jackson (2001:175) recommended that random sampling of entries ought to be used, such as "the tenth main entry on every twentieth page" to collect a manageable set of entries.

As mentioned above, the participants to the study were Tigrinya-major students and their instructors at Mekelle and Addis Ababa Universities. The reason for the researcher to focus on these higher institutions is that many of the students who major Tigrinya, are found in these higher institutions. The following table provides the number of dictionaries, students, instructors and compilers selected for the study.

<i>Subjects</i>	<i>Total</i>	<i>Sample</i>	
		<i>No</i>	<i>%</i>
dictionaries	20	6	30
students	353	105	30
instructors	21	10	47.6
dictionary compilers	5 <sup>14</sup>	3	66.7

Table 1: population and sampling

## 1.6. SIGNIFICANCE OF THE STUDY

As it is pointed out earlier, dictionary plays a vital role in all fields of study. Hence, it attracts the attention of scholars in various fields and even the whole public. The significance of this study lies in the absence of adequate previous researches on the dictionary of Ethiopian languages in general and in Tigrinya in particular. The findings of this study will therefore have important contribution to correct the weaknesses of dictionary-making. Specifically, the findings of the present study can serve as:

- a) guidelines for preparing a standard dictionary in the language under discussion as well as in other Ethiopian languages.
- b) reference for researchers who are interested in doing further research on lexicography.
- c) reference/ guideline for curriculum designers to prepare a chapter in school language-textbooks so as to make students effective dictionary users.

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<sup>14</sup> One person compiled two dictionaries

## CHAPTER TWO

### 2. THEORY AND PRACTICE IN LEXICOGRAPHY

This chapter attempts to address the major theoretical and practical issues in dictionary making and dictionary research. It encompasses three major sections. The first section tries to address the definition and scopes of lexicography. The second section deals with the theoretical issues on dictionary history, typology, structure, use, criticism/evaluation, computational lexicography and dictionary research as a multidisciplinary approach. It provides various key principles and appropriate techniques for describing and evaluating the standards of the selected dictionaries and their uses. Section three then looks on the process of dictionary-making like, planning, writing, and producing and their subdivisions.

#### 2.1. Definition and Scopes of Lexicography

According to Singh (1982) and Green (1996), both lexicography and lexicographer originated from two Greek words 'lexiko' 'speech' or 'word' plus 'graphos' 'writing' which together mean the writing of words. Thus, the etymological meaning of the words tells for itself the scope of lexicography as the systematic way of writing words in some concrete form.

Samuel Johnson (1771) quoted in Green (1996: xiii) defined the lexicographer as “a writer of dictionaries...a harmless drudge that busies himself in tracing the original and detailing signification of words.” Johnson’s definition stresses the lengthened time-consuming or complexity of the work to compile. As to Singh (1982) Johnson was not aware at that time the great worth of his work which remains as “the Bible of the English language for a century”. Green (1996: xiii) also writes that: “Dr. Johnson was wrong: the lexicographer is not the harmless drudge....The reverse is true. The lexicographer, the interpreter and arbiter of the very language that underpins every aspect of communication, is far more deity than drudge.”

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Landau (1989:4) also appreciates Johnson's marvelous work as a lexicographer regardless of the fact that he was "a poet, a playwright, a biographer, a political polemicist, a brilliant talker and debater, --- yet as a lexicographer that he left his most enduring legacy to mankind". Contrasting to Johnson's complaints, Hulbert<sup>15</sup> quoted in Zgusta (1971:357) also argued:

I know of no more enjoyable intellectual activity than working on a dictionary. Unlike most research, lexicography rarely sends one in fruitless quests; one does not devote days, months, or even years to testing a hypothesis only to decide that it is not tenable, or to attempting to collect evidence to prove a theory only to have to conclude that sufficient facts are no longer in existence to clinch it. It does not make one's life anxious, nor build up hopes only to have them collapse. Every day one is confronted by new problems, usually small but absorbingly interesting; at the end of the day one feels healthily tired, but content in the thought that one has accomplished something and advanced the whole work towards its completion.

Nowadays it seems worthwhile to accept Hulbert's argument and most of the above optimistic details since modern computer technology plays a crucial role in both practical and academic lexicography.

In general, Hartmann (2003:1) rightfully pointed out that, there have been various viewpoints on the definition of lexicography like, "dull" (Johnson), "enjoyable" (Hulbert), "exiting" (Partridge), "tedious" (Gleason), "difficult" (Zgusta), "like engineering" (McGegor), "team work" (Svensén), and "fashion" (custom-made production) (Landau). The following are some selected definitions from the metalexicographical literature.

"The art and craft of dictionary making" Landau (2001:1)

"Lexicography is the art and science of dictionary making" (Crystal, 1987:424)

"Lexicography, the practice of documenting the meanings of words (literally by writing them down), is, through its products, perhaps the most familiar branch of linguistics to the general public. [It] is also an ancient and much theorized activity" (Haviland, 2006:129).

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<sup>15</sup> Professor Hulbert was one of the co-editors of the dictionary of the American English (see Zgusta, 1971)

Lexicography is often defined as the art, craft, or science of compiling dictionaries. Compared to lexicology, we could thus say that, while the latter deals with the more theoretical aspects of the lexicon, the aim of lexicography and its practitioner, the lexicographer is to compile actual dictionaries. (Prinsloo et al. 2000:220).

As one can glimpse from the above definitions almost all authors use 'art' and 'craft'/science. Besides, in more recent works like Kirkness (2005) and Atkins (2008) espouse Landau's definition; "the art and craft of dictionary making." However, most scholars vary in their outlook on the place of lexicography: as an independent discipline (Hartmann and James, 1998, Hartmann, 2003), as branch of linguistics (Haviland, 2006), as a branch of computational linguistics /computational lexicography (Hoelter, 1999), as a branch of applied linguistics (Carter, 1998; Kirkness, 2005; Prinsloo et al. 2000) and so on.

Hartmann (2003:440) clearly explained the interdisciplinary link of lexicography with philosophy, science, history, and data supplying disciplines (see 2.2.7). This shows that lexicography is a highly interdisciplinary field of study, and it has a wider scope.

When we compare Haviland's (2006) and Prinsloo's et al (2000) definitions stated above, lexicography has its own historical development and theoretical background. As to Prinsloo, the theory is to lexicology, while the practice to lexicography. On the other hand, Kirkness (2005:55) said "It is difficult to arrive at a succinct and satisfying definition of lexicography". As to Kirkness the definition of lexicography as "art" and "craft of dictionary making" is in its narrow sense for applied linguistics perspective/ and it is "a compromise for the save of brevity". As to Kirkness the definition is derivative in the sense that it initiates several questions like; "Why dictionary, why not, for example, 'thesaurus', 'lexicon', or 'encyclopedia' and other reference works? Why write, why not for instance, let alone study, review, or use? Why art and craft, why not, 'activity', process, technique, science, job, profession or practice, let alone history, study, use, or theory?" Kirkness (2005:55)

According to Kirkness, the answer for the above questions is that, dictionary is considered as a 'prototypical work' of lexical references and writing is a crucial task of lexicography, mainly writing and rewiring semantics, pragmatics, accompanied by editing. Thus, the task of lexicography remains more than compilation. Hence "art" in the definition of lexicography stands for the extraction of meanings and uses from various texts and illustrating them. And 'craft' refers to the practical activity of writing the dictionary bearing the users needs in mind (Ibid).

Hartmann and James (1998:87-8) also defined lexicography as "the professional activity and academic field concerned with dictionaries and other reference works."

Therefore, by merging all the above definitions it seems plausible to describe lexicography: as the applied study of the meaning, evolution, and function of words/lexis of a language and it is both an art and craft of dictionary-making and dictionary-research (Ladua, 1989, Crystal, 1987 and Béjoint, 1994, Newell, 1995).

Then what is a dictionary? The word 'dictionary' is also originally derived from Latin "*dictionarius*". According to Béjoint (1994) the definition of word dictionary is also ambiguous and encompasses multiple meanings. This is due to the reason that each author writes from his or her standpoint and for particular user.

It is certainly unreasonable to expect a general dictionary to provide a definition of dictionary that can satisfy the specialist. There is a wide range of lexicographical products that can be called dictionaries: dictionary is a term with a wide extension and a complex intension. If the definition is too precise, it will not encompass all types of existing dictionaries; if it is too vague, it will not differentiate between dictionaries and other of reference works. The concept is a complex one that can only be defined by specialists (Bejoint, 1994:8).

As to Béjoint, the paramount definition in 'metalexigraphy' is actually lists of features drawn by Rey-Debove (1971) for her study of modern French dictionaries. As to Debove quoted in Béjont (1994:9) a dictionary can be defined by the following eight characteristics:

- a) *A list of separate graphic statements*
- b) *A book designed for consultation*
- c) *A book with two structures, sometimes only one*
- d) *Items are classified by form or content*
- e) *The information is linguistic in nature*
- f) *The Information is explicitly didactic*
- g) *A dictionary gives information about signs*
- h) *The word-list corresponds to predetermined set, and is structured if not exhaustive* (Béjont 1994:9; English translated from French)

Therefore, as to Rey-Debove (1971) discussed in more detail in Bejont (1994), a dictionary as a reference book, must have a series of independent paragraphs, since it is not designed for continuous reading. After all, a dictionary is meant to be consulted, not read. It has double structure known as “macro-and micro-structure. The macro-structure purely means word-lists, while the micro-structure refers to the content of each entry. The word structure implies the existence of pre-established program. (Bejont1994:10-31).

To sum up this section, a few lexicographers like Béjoint (1994) agree with Johnson “as there is obvious unavoidable drudgery in dictionary making.” It is time-consuming, for example, at earlier times the compilation of big dictionaries took over 40- 60 years particularly before the invention and advancement of computer technology. However, nowadays especially with the advance of electronic medium and different software and corpus linguistics, the horizon of dictionary making has been extending, and the “Harmless drudge” becomes an enjoyable and pleasant scientific work following its objective principles. This study regards lexicography as branch or sister of applied linguistics that can lend hand to resolve language-related real world problems. The next section aims at providing in-depth discussions of both theoretical and practical lexicography.

## **2.2. Conceptual Framework**

Any scientific research has to be grounded with principles and parameters of a sound theory or at least a conceptual framework of the discipline under investigation. A good theory acts like a polarizing lens on a camera in filtering reality. In other words, a good theory helps the researcher to critically analyze, synthesize, evaluate and generalize

his/her findings. Accordingly, any empirical study has to follow scientific and objective procedures. In this regard McLaughlin (1987:7) rightfully defined a theory as “a way of interpreting, criticizing, and unifying generalizations.”

Here, one can raise basic questions like: Does theoretical lexicography exist? What is the nature of the lexicon and lexical knowledge, how do the lexicon and lexical semantic information exist in the human mind, and how could the lexicon be elicited/extracted and compiled as a dictionary? The answers to these questions mainly depend on the theory and framework/hypothesis that one follows. These include linguistics, psycholinguistics, sociolinguistics, lexicology, lexicography, terminology, or from those of cognitive science, computer science, language engineering, none of these lists might even give a holistic or complete theory to the position of the lexicon (Hoelter 1999:1).

The lexicon is then, a place where linguists, lexicographers, language teachers and so on are very interested in (Koeig, 1999:1). Thus, a dictionary is needed to store actual words of a language as a subpart of the mental lexicon of native speakers. The mental lexicon refers to the mental store of both actual and potential lexis or words of native speakers and it is infinite/open-ended unlike to the dictionary (Haviland, 2006, Cruse, 1986, and Saeed, 2003).

The lexicon seen as a dictionary helps and broadens our knowledge of how to use the words of a specific language. But, still which is the dictionary we are talking about? Is the mental dictionary in the mind of native speakers or the actual dictionary that we use as a printed book or electronic or online form; how can the mental lexicon extracted and compiled as a dictionary; are the lexicon in the mind have similar structure/order just like the actual dictionary, and so forth? This is the concern of theoretical lexicographers, lexical semanticist and psychologists.

When we consider the lexicon as a component of a grammar, it is defined by theoretical linguists' framework as relevant for syntax or other branches of microlinguistics depending on the particular theory. For example, in the structuralism theory, there was no

place for semantics. Hence, the lexicon is treated as a word structure excluding its meaning. As to Béjoint (1994), though the transformational generative grammar (TG) revolutionized the preceding theories in linguistics, its role on lexicography remained not very practical. For instance, at early phase of this theory, each morpheme has to be analyzed independently as in *defuse=de+fuse*, *resolve=re+solve* etc. to make a generative dictionary. However, this was found to be impractical or most difficult. Currently TG encompasses semantics mainly lexical semantics (the study meaning of words)<sup>16</sup> and linguists turn out to be interested in lexicography. In this regard Bejoint (1994:176) said:

The interest of linguists for lexis was renewed a few decades ago as a reaction against those theories that had little to say about lexis and semantics. The most promising aspect of modern semantics for lexicography--- is probably *prototype theory* and the ensuing discussion of the *modes of categorization*, of word meaning, and of the nature of *semantic features*.

Therefore, yet in theoretical linguistics, depending on specific school of thought, one adheres to, the lexicon considers more formalized and basic in some theories and limited or even no lexicon in another. For example, as to the generativist view the lexicon is modular, just like syntax; whereas as to the cognitive linguistics, there is no such autonomous division. And in the case of formal/functional linguistic theory, apart from few words of quantifiers (some, few, all, each, every) and connectors (e.g. and, but, if--then) there is no lexicon at all. The lexicon is treated with sentence as true or false. In this theory, the function of lexical entries (few conjunctions and quantifiers) stated above is very limited.

According to the cognitive linguists, lexical entries are represented by means of formal 'neutral networks' in certain regions of the human brain and hence, unlike the generativist view, there is no modularity or structure, except 'networking'. In other words, they occur in different places linking by way of association (Croft and Cruse, 2004). In general, the

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<sup>16</sup> Lexical semantics is a branch of linguistic semantics and it is the study of how and what the words of a language denote. Words may either be taken to denote things in the world, or concepts, depending on the particular approach to lexical semantics. It covers theories of the classification and decomposition of word meaning (see, Saeed, 2003; Cruse, 1985 for details).

place of the lexicon within the grammar depends on the particular theory we follow (see Saeed, 1997/2003; Hoelter, 1999).

This thesis looks the lexicon on the basis of the theory of lexicography known as 'metalexicography'. According to this theory, the lexicon is seen as modular and autonomous language ability in the human brain. Hence the mental dictionary plays a key role to the actual dictionary. This form of dictionary is currently undergoing massive changes with the emergency of "artificial intelligence" in computer science, and the application of the lexicon in multimodal<sup>17</sup> as representation of the "mental lexicon" (see details in Hoelter 1999:1-2).

Linguists and Lexicographers had been debating on the theory of lexicography for a number of years. Currently they have already developed a theory called 'metalexicography'. According to Denisov (2003:70), the founder of theory of the lexicography is a Russian scholar named Shcherba in 1940, in his extensive and widely quoted article entitled "Towards a General Theory of Lexicography."<sup>18</sup> This paper was first written in Russian and then translated to English, interpreted and reprinted in several journals like in the International Journal of Lexicography (1995:314-350) and in numerous books for example in Hartmann (2003:11-43, in vol. III). Although the theory was founded by Shcherba in 1940, the theorizing persists till more recently. There have been a number of arguments and debates among scholars on the theory of lexicography; predominantly in theoretical linguistics, psycholinguistics, applied linguistics and lexicography, and so on.

At earlier periods, lexicography was treated as a field without its own theory. For example; Wierzbicka (1985:5) as quoted in Lew (2007) and Atkins (2008:32) argued that: "Lexicography has no theoretical foundations, and even the best lexicographers, when pressed, can never explain what they are doing, or why".

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<sup>17</sup> different software for building electronic dictionaries

<sup>18</sup> The first version of this article was devoted to the basic types of dictionaries. As to Shcherba (1940) dictionary typology is the crucial point for lexicographical theory (see details in Hartmann, 2003 voi.3 pp.11-43).

description and critical explanation of the theory of “metalexigraphy”. She primarily focuses on the explanatory power, definitional adequacy of the theory. Moreover, she presented the basic steps to be followed in the process of dictionary making (Analysis, synthesis, and style guide principles, etc) (see details, in Atkins in Fontelele (2008:32-43).

Therefore, scholars in various fields, among them Linguists (mainly theoretician and applied linguists), language teachers, psychologists, and so on can contribute to the theory and practice of lexicography. Thus, Zgusta (1971) is absolutely right when he says, “the dictionary is the meeting place of all the systems of linguistics and non-linguistics which bear relatively on speech behavior.”

At present, many lexicographers such as Zgusta (1971), Landau (1984/2001) Bejoint (1994/2000), Hartmann (1999, 2003), and Lew (2004a, 2007, 2008) only to mention few, recognize “metalexigraphy” as a solid and growing theory. As to Hartmann (2003:2) several lexicographers all over the world have contributed to the theory of ‘Metalexigraphy’. There is a growing consensus and agreement on the underlying principles and on the main components that research on lexicography should focus on. Hence, this research will employ ‘metalexigraphy’ as a multidisciplinary approach. Hartmann and James (1998) and Hartmann (2003) have introduced the following diagram for practical and theoretical lexicography as a guideline.

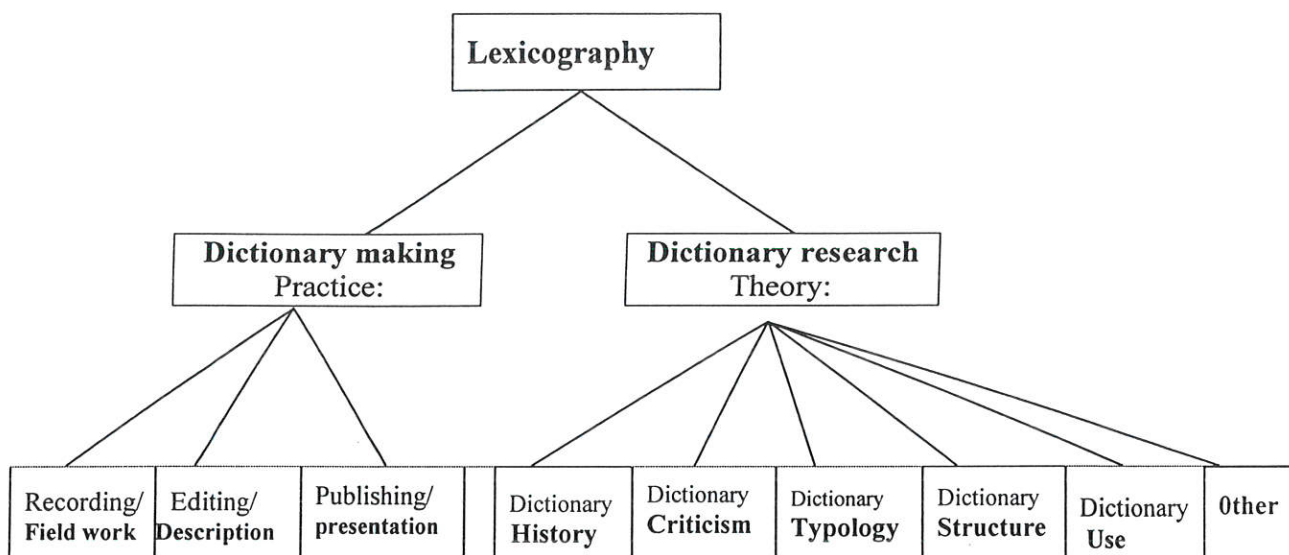


Figure 2: Theories and Practice in Lexicography: (adopted From Hartmann, 2003:2, Vol.-I)

As shown in the above diagram, lexicography has two main branches; ‘dictionary research’ and ‘dictionary making’. While ‘*dictionary research*’ focuses in theoretical aspect that studies the history, typology, structure, criticism/evaluation, uses of dictionaries, ‘*dictionary making*’ concerns with the recording, editing and compiling a dictionaries. Although this study depends on the guiding principles of dictionary criticism and dictionary use; it seems worthwhile to give a short and brief summary of all the above branches of lexicography. This will throw light for the critical evaluation of the dictionaries under investigation. Hence, the next sections provide overview discussions on the theory and practice of lexicography as distinguished in the diagram above.

### 2.2.1. Dictionary History

Lexicography has a long-aged tradition and the experience, knowledge and wisdom of ancient dictionaries play a great role for the development of its modern kind. In this sense we can say, lexicography was developed from practice to theory. In other words, dictionary compilation comes first before theorizing. Studies on dictionary history help to know earlier and current knowledge on dictionary making. In this regard, Hartmann (1986) quoted in Hartmann (2003:2) claimed that:

Most dictionaries have forerunners, and all have imitations; an understanding of the historical foundation of dictionary-making is therefore one of the preconditions of further progress in academic lexicography.

According to Hartmann (2003:2-3) there are about seven kinds of studies related to a particular period of time that can be considered in the history of lexicography. These can be summarized in the following diagram.

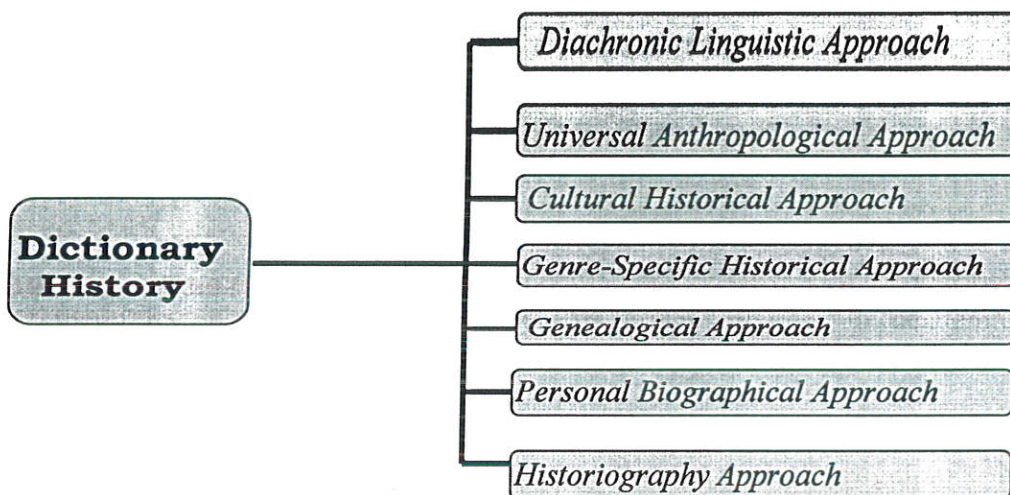


Figure 3: Classification of studies on dictionary history

As shown in the above diagram, dictionary history can be distinguished into seven types. As discussed in Hartmann (2003:2-3) the aim of the ‘*Universal Anthropological Approach*’ is to find out how reference tools like writing, printing or computing, have developed around the globe throughout human history. The goal of ‘*Diachronic Linguistic Approach*’ is to discover how languages have changed over time and how these periods have been transformed in reference works as in historical scholarly dictionaries. The ‘*Cultural Historical Approach*’ focuses at scrutinizing how different types of lexicographic standards have been developed within different intellectual traditions. And the goal of the ‘*Genre-Specific Historical Approach*’ is at finding out how varied types of dictionaries have developed for various purposes, for instance, bilingual dictionaries were initially compiled for the aim of translation; whereas monolingual dictionaries for reading principally for native speakers.

Moreover as shown in the above diagram, the main objective of the '*Genealogical Approach*' is at examining how different reference works are family related'. For example, how modern dictionaries are excerpt and adopted from their earliest dictionaries. Then again, the aim of the '*Personal Biographical Approach*' is to investigate how individual dictionary writers have cope with their tasks and what novelty or wisdom they have brought to lexicography. Finally the '*Historiography Approach*' aimed at examining how theories of 'metalexicography' have developed over time (ibid).

Although the history of lexicography is not the main concern of this study, it seems appropriate to briefly sketch out some of the most global and local issues which had played a crucial role for the development modern lexicography. To do so, let us see first a short summary of some selected ancient works in the discipline.

### **2.2.1.1. Overview on the History of Lexicography: Global Perspective**

According to Crystal (1987:110) and Hanks in Brown (2006:113) the history of lexicography goes back prior two hundred years to ancient Greece, Rome and ancient Chinese civilizations. In the fifth century B.C there were monolingual dictionaries in ancient Greece. As opposed to classical Greek Monolingual dictionaries, the Roman's dictionaries were multilingual like Latin-Greek or Greek- Latin.

In most European languages their history of lexicography began to emerge as a result of glosses found in medieval manuscripts, which ware written to help people learn difficult Latin words in texts. Hence the earliest dictionaries in modern European languages were bilingual. In English, the former dictionaries were glossaries of English- Latin or French/ Italian words. The first English alphabetical dictionary was *A Table Alphabeticall*, compiled by English teacher Robert Cawdrey in 1604. Later, with the invention of printing machine by Gutenberg in 1450, European lexicography began to show rapid progress (Hanks, 2006:113).

When we see the history of lexicography outside the western world, there were dictionaries in ancient Chinese and in the Middle East. For instance it is said that the oldest dictionaries was Akkadian cuneiform tablets with bilingual Sumerian-Akkadian wordlists discovered in modern Syria and dated approximately 2300 BCE. On the other hand Chinese dictionary was assumed to be the earliest monolingual dictionary. Following the invention of printing machine, Arabic dictionaries began to emerge from around 8<sup>th</sup> century (Hanks, 2006).

As pointed out in Crystal (1987:11) the following table summarizes the major global events in the history of lexicography.

<b>Time</b>	<b>Important Event</b>
1884	Compilation of the first installment of the Oxford dictionary (took 44 years.)
1829	Noah Webster compiled 'An American Dictionary of the English Language' (2 volume) around 70,000 entries
1755	Publication of the 'Dictionary of the English Language' by Samuel Johnson (2 volume)
1611	Publication of the first major Spanish dictionary, Tesoro de la lengua castellana o espanona
1606	Publication of the 1 <sup>st</sup> systematic French dictionary called 'Thesordela Languge francoyse' by Jean Nicot
1604	Robert Cawdey Compiled 'A Table Alphabetical' – the first English dictionary
1596	The first published Russian dictionary: Laurentii Zizanii's--- synonyma Sloveno-rosskaia.
1539	Compilation of Robert Estienne's Dictionaries François-Latin.
1511	The first printed Dutch dictionary: Noëlde De Berlaimont's Vocabulaire.
1499	Perhaps the first dictionary to be printed in England. (Latin-English Promptuorium Paruulorum)
1477	The earliest printed bilingual dictionary: the vocabolista italiano-tedesco (Venice)
13 <sup>th</sup> c.	Joannes Balbus Januensis compiled the encyclopedic dictionary the Catholicon, printed in 1460.
12 <sup>th</sup> c.	Compilation of the Greek Etymologicon magnum
11 <sup>th</sup> c.	First Chinese-Japanese encyclopedic dictionary, by Minamoto no Shitagô.
10 <sup>th</sup> -11 <sup>th</sup> c.	Compilation of Byzantine encyclopedic dictionary [named 'Suda']
8 <sup>th</sup> c.	The first general Arabic dictionary, 'Kitāb al-ayn' compiled by Al-Khalil Ibn Ahmad.
6 <sup>th</sup> c.	Compilation of Sanskrit dictionary by the Hindu grammarian, Amarasimha.
5 <sup>th</sup> c. B.C	Hesychius of Alexandria compiled a large lexicon of classical Greek.
2 <sup>nd</sup> c.	First systematic Chinese dictionary compiled by Hsüshên,
1 <sup>st</sup> c.	Valerius Harpocration compiled a lexicon of the Attic Orators.
1 <sup>st</sup> c. B.C	Marcus Verrius compiled the first Latin lexicon, 'Libride Significatu Verborum.'
2 <sup>nd</sup> c. B.C	Aristophanes of Byzantium compiled a dictionary of current and obsolete/archaic words
3 <sup>rd</sup> c B.C	The poet Philetas of Cos compiled a glossary of un usual poetic, technical, and dialect words.
5 <sup>th</sup> c B.C	Protagoras of Abdera compiled a glossary of unfamiliar words in Homer.

**Table 2: Some major events in the history of lexicography- summarized from Crystal (1987:111)**

As shown in the above table, the practical aspect of dictionary compilation has a very old history. It is the earliest language study along with a grammar. In this regard, Devi (2006:6) asserted that “It is an age-old practice to study and analyze the human languages in terms of two major divisions as (1) Grammar and (2) Lexicon, although they are not separable elements.”

As discussed in Crystal (1987) and Hanks (2006); in the 17<sup>th</sup> century, there were several bi-/multilingual dictionaries as a result of trade and missionary activities. Then, in the 18<sup>th</sup> century, following the emergence the comparative philology, a new way development in lexicography began to appear. In the 19<sup>th</sup> century, there were different projects in lexicography, with particular emphasis in specialized dictionaries.

In the early 20<sup>th</sup> century, lexicography developed and become an academic discipline in many universities mainly in the western world, and even in many countries of the Middle East, and Far East and so forth. The establishment of lexicography as scholarly discipline led from the emphases on historical or diachronic studies to the synchronic studies; especially due to influence of modern linguistic theories (Crystal, 1987:111, Hanks, 2006).

Following the advance of lexicography as an independent field of study many associations and research institutions establish in all continents of the world as listed in the table below.

<i>year of establishment</i>	<i>Association</i>	
	<i>short form</i>	<i>in its full form</i>
1975	DSNA	The Dictionary Society of Northern America
1975	LSI	Lexicographic Society of India
1983	EURALEX	The European Association for Lexicography
1990	AUSTRALEX	The Austral-Asian Association for Lexicography
1992	LSCH	The Lexicographic Society of china
1995	AFRILEX	The African Association for Lexicography
1997	ASIALEX	The Asian Association for Lexicography

Table 3: Major Associations on lexicography, Summarized from Hartmann and James (1998: VI)

More recently, with the massive and fast growing of computer technology, and with the growing interest of computer scientist, lexicographers, linguists, and the like; in corpus linguistics; research on lexicography is spreading all over the world. Especially, with the development of computational linguistics, and computational lexicography a number of electronic dictionaries are flourishing, chiefly in the western languages and in most developed nations like Japan.

### 2.2.1.2. Overview of Ethiopian Lexicography

The next discussion is an attempt made to highlight the historical origin and development of lexicography in Ethiopia with particular emphasis on Tigrinya dictionaries. In order to throw light to the knowledge of current status of the field in our country, it seems important to mention some of the earliest dictionaries in some major Ethiopian languages.

As we know, Ethiopia has a long literary history and ancient manuscripts akin to the ancient civilizations of the world. For example, there are several old documents written in Ge'ez. Nevertheless, the compilation of the lexicon as a dictionary, just like most African languages, traced back to the coming of foreign travelers to the country.

According to Araga (1975:23 E.C) the earliest Amharic dictionary was written by Ludolf in 1698 under the title of *Amharic-Latin dictionary*. Then, Abbadie, Antoine di, (1881) published *Amharic-French dictionary*. Afterwards/ much latter Isenberg (1941) compiled the *English-Amharic Dictionary* and *Amharic-English* in a single volume. This was followed by indigenous writers like, Aleka Kidane Weld kifle's *Mäs 'häfäsäwasaw wäg'is Mäzgäbä K'alat hadis* published by Desta Teklewold in 1948 E.C. After that Tessema Habte-Michael (1951) compiled '*Käsate Birhan Tessema yä Amariñña Mäzgäbä K'alat*' 'Amharic monolingual dictionary' and so on.

In 1844 Karl Tutsechek compiled *Lexicon der Oromo Sprache*, and it was followed by Onesimus Nesib's (1882) *Oromo-Swedis Dictionary*. Another dictionary compiled much latter was E.C Foot's (1913) *English-Oromo/Oromo-English dictionary* (Araga,

1975:24). In 1960 Leslau compiled a Gurage dictionary entitled *Homonyms in Gurag* and he might be the first scholar who deals with Gurage lexicon<sup>19</sup> and so forth.

In general, the earlier dictionaries in Ethiopian languages were compiled by foreigner travelers. This was very common in most African languages due to the then pressing need by missionaries' and colonialists. When compared with the western languages, any research on the history of the lexicon of African languages is at disadvantage (Prinsloo et al, 2000).

Gradually, the compilation of dictionaries started to be done by indigenous scholars and currently there are many dictionaries principally on the above major Ethiopian languages. Now let us move ahead to the detail historical discussion of Tigrinya dictionaries.

### **2.2.1.3. Brief History of Tigrinya Lexicography**

According to Hailu (1981) and recently Gebreyesus (2008), the earliest attempt on Tigrinya lexicon was made by European travelers. Henry Salt's (1814) "English-Tigre lexicon" and Strelcyn's (1877) "A short Tigrinya-Turkish & Tigrinya-Arabic Vocabulary", are on the fore front. Therefore, *Hennery Salt* appears to be the first to include a glossary of Tigrinya words using the Latin script. He includes 181 English wordlists, although a Tigrinya equivalent is not given for every English vocabulary. The list of words has four columns, headed by four languages: English, Amharic, Tigrinya and Agaw. It encompasses terms of nature, Kinship terms, names of domestic animals, body parts, numbers, adjectives, colors, and so on.

Then, several Tigrinya-Italian dictionaries were compiled by Italians scholars for the reason that Eritrea was under the colony of Italy for decades. The dictionaries compiled by Italians were mainly aimed for the benefits of Italians who wish to learn Tigrinya, in order to communicate with the people. Accordingly, an 'Italian-Tigrinya' or 'Tigrinya-Italian' dictionaries were compiled using Geez script accompanied by phonemic transcriptions. Gradually, the works of indigenous writers like Aba Yohann's (1948/49

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<sup>19</sup> in 1887 Giovanni Chiarini compiled *Vocaboli della lingua Ciaha*. However, unlike to Leslau's (1960) work Chiarini'S work was limited to one of the Gurage languages.

E.C) *Tigriñña-Amariñña Mäzgäbäk'älat* 'Tigrinya-Amharic dictionary', Mergeta Girmatsion's (1983) *Lisänä-agazi zäʔim-girma: Mäzgäbäk'älat Tigrinya* 'monolingual Tigrinya dictionary' appeared. Yohannis's volume is the first Tigrinya dictionary compiled by an indigenous author.

It seems worth mentioning to the advantage of the dictionaries written by foreigners; although most of them were predominantly prepared for the assistance of foreigners (chiefly Italians) for those who wish to learn Tigrinya. These dictionaries can also be valuable for the native speaker like, to learn a foreign language, for translation purpose, for research and academic purpose, and so forth. But an examination of these dictionaries is not so far undertaken. For example while assessing their existence in IES and Kennedy library here at Addis Ababa University; the researcher observes several inaccuracies in spelling, pronunciation grammar, and so on. For instance most of the earlier dictionaries compiled by Italians like Cimino's (1904), Coulbeux's (1915), Vito's (1896), and so forth, did not show any grammatical information, exemplifications, no systematic arrangement of the entry and its derivations. Furthermore, no marker for gemination is given and even there is a confusion of in spelling<sup>20</sup>. And most of these dictionaries apart from Bassano's contain from 3,000 to 10,000 words.

However, Bassano's (1918) is relatively better than all dictionaries prepared by Italians. For example in terms of size, it encompasses about 35,700 head entries. He also tried to show the gemination using slash<sup>21</sup>. His dictionary also contains grammatical information like imperfective, perfective, and pronunciation using IPA.

Kane's two volumes of "Tigrinya-English dictionary" published recently in 2000 are the biggest and probably the best of all Tigrinya bilingual dictionaries compiled so far. The first volume has 1406 pages and the second one 1336 pages. The head words are arranged by root in the Tigrinya alphabet. This is followed by a transcription of the root and

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<sup>20</sup> For example Cimino (1904) uses "መስፀን" to say "መገፀን" which means "womb /uterus" "መሀረ" to say "መሃረ" which means "he taught" i.e. there are incorrect alphabet alternations in most of the earlier dictionaries prepared by Italian writers. There are also Amharic words used as Tigrinya. For example, 'ሃያ' is used instead of the right Tigrinya word 'ፊስራ' 'twenty' to mention few.

<sup>21</sup> For instance "ምጽጺራ" 'to limit'

grammatical information. The explanation of the lexical entries is succinct with examples given where required. However, since this is beyond the scope of the present study, the researcher suggests a further critical evaluation or study for the dictionaries prepared by foreigners Listed in table-3 below.

In order to glimpse clearly how Tigrinya dictionaries developed along with time deference, the researcher tried to provide a complete list of the dictionaries in the language from the beginning till the present. Although it was not easy to get all dictionaries, the researcher has tried to get all lists of Tigrinya dictionaries compiled so far from Addis Ababa University libraries (Kennedy and IES) and from the websites<sup>22</sup> particularly for the dictionaries prepared outside Ethiopia). The dictionaries compiled by foreigner authors are listed in table-4 in ascending order. Those written by indigenous authors (Ethiopian and Eritrean scholars) are listed in table-5 below.

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<sup>22</sup> (<http://www.lmp.ucla.edu/Search.aspx?MatID=0&LangID=18>) This website yields **40** records (**11** Authentic Materials and **29** Teaching Materials) on Tigrinya. **12** of them are dictionaries. To display one of these records in full form click on the "View" button to the right of the record you want to view. To sort, click on "Author", "Title" or "Year". To search a language(s), click on the "language" button to the left and select the language you wish to view. It also provides lists of materials such as dictionaries, grammar, and descriptions, etc of *other major languages of the world*.

<u>Author</u>	<u>Title</u>	<u>Year</u>	<u>page</u>	<u>Pub. Place</u>	<u>Type</u>
Kane, Thomas Leiper	Tigrinya-English Dictionary [Volume: 1]	2000	1406	Dunwoody Press, Springfield, Virginia	BL
	Tigrinya-English Dictionary [Volume: 2]		1336		
Ishigaki, Yukio	A Basic Clause Dictionary: Geez-Tigrinya- Amharic-Somali-Swahili.	1974	---	Milan, Italy	BL
Caressa, Ferruccio	Dizionario africano: italiano-amarico, tigrino, arabo, galla, migiurtino, benadirese.	1958	238	Milan, Italy	BL
Piccirilli, Tito	Dizionario di alcune lingue parlate nell'A.O.I.	1938	813.	Empoli, Italy	BL
Genio ed.	Vocabolario Pratico-italiano, Tigray Amarico	1936	---	Italy	BL
Bassano, Francesco de	Vocabolario tigray-italiano e repertorio italiano- tigray.	1918	1322	Rome	BL
Coulbeaux,P., and Schreiber J.	Dictionnaire de la langue tigrai.	1915	504	Vienna, Rome	BL
Cimino, Alfono	Vocabolario italiano-tigrai e tigrai-italiano	1904	203	Asmara	BL
Bianchi, Clován	Dizionario e frasario Eritreo. Raccata di 5500 vocablori	1903	274	Milano, Italy	BL
Vito, Ludovico	Vocabolario della Lingua Tigrigna.	1896	166	Rome	BL
Streleyn	A short-Tigrinya Turkish and Tigrigna-Arabic Vocabulary	1877	----	Britain	glossary BL
Salt, Henry <sup>23</sup>	English Tigre(Tigrinya) Lexicon	1814	-----	London NPP.	glossary BL

**Table 4: Tigrinya dictionaries compiled by foreigners**

<sup>23</sup> Sall's and Streleyn's books contain few glossaries, hence it is difficult to regard them as dictionary.

Author	Title	Year	Page	Place of Pal.	Type <sup>24</sup>
Kassa G/hiwet	Mäzegäbä qalat Tigrinya	2008	....	forthcoming	ML
Dan'el Täxlu	Lisan: English Tigrinya Dictionary	2001 E.C	773	Mäq'älä	BL
	Miras: Tigrinya-English Dictionary	2000 E.C	354		
Abdel Rehman	English Tigrigna Dictionary	2007	722	INDIA.	BL
Rahel Yeshit'la	Saba: English-Tigrinya-Amharic Dictionary	1996 E.C	481	Addis Ababa	BL
Alula Enkubahry	English-Tigrigna Idioms and Phrases Dictionary	2001	199	Asmara, Eritrea	BL
Tsegazeab Woldetatos; Mengstab Tzegai	English-Tigrigna Medical Glossary; Bridging the Gap: Medical Interpreter Training Materials	1999	205	USA Washington	BL
Isaac Tseghai	Mähdar Mazgaba Qälät Engliz-Tegreñä / Mahder English-Tigrigna Dictionary	1997	486	Asmara?	BL
Täxästä Täxlä et al	Mäzgäbä k'alat Tägräñña bə-Tägräñña	1989, E.C.	970	Addis Ababa	ML
Gäbrä-Egziabher Bihon	Nas'lla: Mäzgäbä qälät Tigrinya	1987 E.C	261	Mäq'älä ?	ML
Uqbamicael Habtemariam	English-Tigrigna Dictionary	1993	263	Asmara?	BL
Board of Scholars	English-Tigrigna Dictionary	1992	722	New Delhi, India	BL
Tuquabo Aressi	Concise: English-Tigrinya Dictionary	1987	191	Ethiopian Studies Asmara,	BL
RIC Eretria	Dictionary: Tigrigna-English	1986	637	EPLF Rome, Italy	
Tuquabo Aressi	Dictionary: English-Tigrina-Arabic	1985	---	EPLF Rome, Italy	TL
Hezbawi	Dictionary: English-Tigrigna-Arabic	1985	718	RIC Eritrea, Rome, Italy	TL
Barhe. Walde- Mariam	Tigrinya-Amharic	67-68	148	Addis Ababa	BL
Girmatsion Mebrahatu	Lisana Ag'azi zä?im-girma: Mäzegäbä qalat Tigrinya	1983/1976 E.C	650	Asmara / Addis Ababa	ML
Mahdere-Kalat	Mahdere-Kalat.	1978	198	RIC Eritrea	
Yohannes Gäbrä-Egziabher	Mäzegäbä qalat tigrina-amariñña.	1957	855	Asmara	BL

**Table 5: Tigrinya dictionaries compiled by indigenous authors**

<sup>24</sup> ML= Multilingual and TL= trilingual

As shown in table-3 above, all the dictionaries written by foreigners are bilingual. When we compare the two tables, the numbers of bilingual dictionaries exceed the monolingual dictionaries.

### 2.2.2. Dictionary Typology

Due to the fact that Lexicography is an interdisciplinary field both along with the humanists (social) and natural sciences; dictionaries are classified into various types on the bases of several criteria. As to Hartmann (2003), distinguishing dictionaries into different types is one important area of study in lexicography. For example studies on dictionary typology helps to know the kinds of dictionaries which are most suitable for particular group users like pedagogical dictionaries for language learning. Moreover, it answers key questions like “which types of dictionaries are most suitable for a particular propose and what features they should offer their users” (2003: 4).

Zgusta (1971:197) in his first major international handbook on lexicography defined dictionary as follows:

A dictionary is a systematically arranged list of socialized linguistic forms compiled from the speech habit of a given speech community and commented on by the author in such a way that the qualified reader understands the meaning ---each separate form, and is informed of the relevant facts concerning the function of the form in its community.

This definition gets acceptance by several lexicographers like Bejont (1994), Sterekenburg (2003),<sup>25</sup> and the like. As to Sterekenburg (2003:4) all the previous definitions do not include electronic dictionaries. Hence to provide a comprehensive definition, he set three basic criteria: “formal criteria”, “functional criteria” and “criteria regarding content”<sup>26</sup>. As stated above Zgusta’s (1971:197) definition concerns with the central dictionary typology, on the bases of lexical meaning. Accordingly he distinguished dictionary typology as summarized in the following tree.

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<sup>25</sup> Sterekenburg (2003:4) appreciates Zgusta as “the twentieth century good father of lexicography, emphasizes the systematic ordering socially accepted and usual forms and on their meanings and functions within the speech community.” Moreover Zgusta’s book persists as the most cited manual.

<sup>26</sup> see details pp 5-8 in his book *Practical Guide to Lexicography*

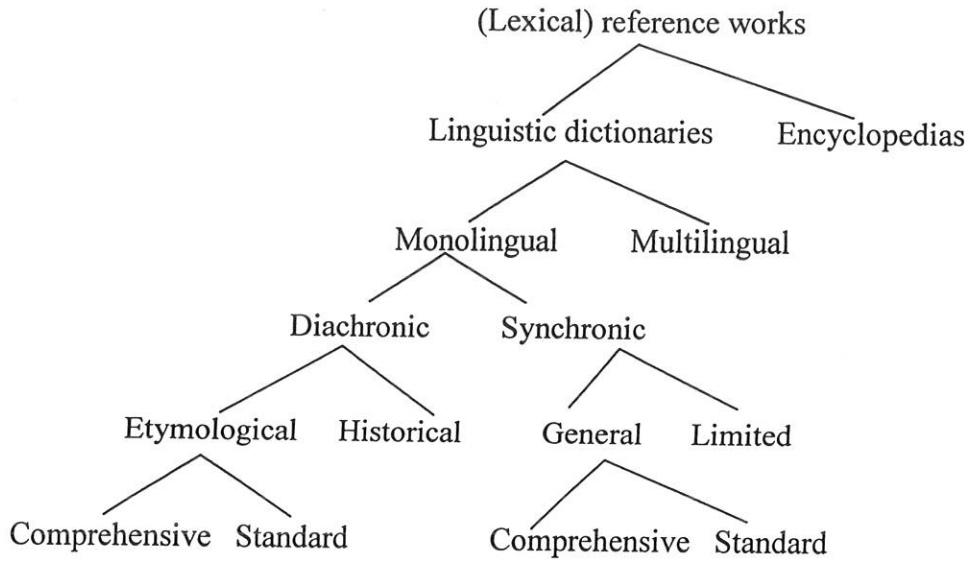


Figure 4: A dictionary typology of Zgusta (1971) adapted from Swanepoel in Sterkenburg (2003:46)

However there is no general criteria and classification among scholars. Several authors and lexicographers like Landau (1984/2001), Hartmann (2003) and so on use various criteria to discern dictionary typology. For instance dictionaries can be classified via employing various criteria such as size, range, number of languages, level and age of users, scope of coverage by subject and so on. However, there is no universally agreed-upon taxonomy of dictionaries in the literature. Therefore it is essential to summarize only the most basic types of dictionaries as in the following.

No	Major criteria	Dictionary type	Characteristics
1	Number of language(s)	- Monolingual ( 1-language)	- For native / advanced learners
		- Bilingual (2- languages)	- Provides equivalents in two languages
		- Trilingual (3-languages)	- Provides equivalents in three languages
		- Multilingual (>3 languages)	- Provides equivalents in more than three languages
2	Density of entries / Purpose	- General purpose / informative	- Contain general linguistic information
		- Specialized, restricted, technical or normative	- focus only on one special aspects of the lexical unit e.g. pronunciation
3	Prospective user age or level of education	- Adult/ Adolescent	- General purpose dictionary
		- Children	- Children dictionary
		- Advanced	- Advanced learners dictionary
		- Intermediate/ college .....	- College dictionary
4	Size	- Unabridged/comprehensive	- contains over 400,000 words/lexis
		- Semi-abridged	- contains about 250,000 entries
		- Concise	- contains at least 150,000 lexis
		- Desk	- about 60,000 lexis
		- Pocket	- Less than 6000?
5	The nature of entries	- Encyclopedic	- provides extra linguistic information
		- Linguistic	- provides only linguistic information
6	Arrangement of entries	- Semosiological /ordinary .....	- Arranged in alphabetical order guide the user from the word to its meaning
		- Onomasiological/Thesauruses...	- The entries arranged in thematic hierarchies or conceptual order
7	Axis of time	- diachronic (dynamic)	- cover historical or archaic words
		- synchronic (static)	- contain words of the specific time/ current
8	medium	- print	- appear in print form as book
		- electronic/ e-dictionaries	- appear as CD/ DVD
		- online dictionaries	- appear as online
9	Source language	- Active	- 1 <sup>st</sup> language → 2 <sup>nd</sup> /foreign language
		- Passive	- 2 <sup>nd</sup> /foreign language → 1 <sup>st</sup> language

**Table 6:** Dictionary Typology: summarized from Hartmann (2003), Béjoint (1994/2000), Atkins and Rundell (2008), Landau (2001), and Svénson (1993) Denisov (2003)

When we appraise the Tigrinya dictionaries in terms of the above dictionary typology; we can classify them into different types, varying from the nature of the lexical entry to the prospective user of the dictionary.

On the bases of language, there are about ten bilingual, three monolingual and two trilingual dictionaries. In terms of density of entries, there are two special dictionaries Alula's (2001) English-Tigrigna Idioms and Phrases Dictionary and Tsegazeab & Mengstab's (1999) English-Tigrigna Medical Glossary. However, all the rest Tigrinya dictionaries can be considered as general purpose dictionaries. On the bases of the prospective user, there is no clear distinction; perhaps all the dictionaries are aimed for both users. In terms of size, it is possible to categorize them into concise, desk or pocket dictionaries. For instance Daniel's (2001 E.C) 'LISAN', as stated on the front part of its cover page, contains about 50, 000 entries and it can be regarded as desk dictionary. Tuquabo's (1987) 'Concise English-Tigrinya Dictionary' contains approximately 6,000 entries and it can be categorized as pocket dictionary and so on. In terms of the arrangement of entries all of them are alphabetic. On the bases of the nature of entries, nearly all are linguistic dictionaries. In other words no encyclopedic dictionary seems to exist. As far as the researcher's knowledge is concerned, on the criteria of axis of time, no etymological dictionary is compiled so far. Hence, all the Tigrinya dictionaries are compiled for synchronic function. Finally, in terms of medium of presentation whether print or electronic all Tigrinya dictionaries appear in print. As far as the present list is concerned there is no Tigrinya dictionary which appears as CD/ DVD form or online. (See table 4, above).

### **2.2.3. Dictionary Structure**

According to Bergenholtz and Tarp (1995:187) Hartmann (2003:3), the main concern of the dictionary structure is to answer questions like how much information is sufficient to provide, what should be the parameters by which the information is provided? They distinguished different kinds of dictionary structure as summarized in the following table.

	<i>Sub-types</i>	<i>characteristics</i>
<b>Dictionary Structure</b>	<i>Mega-structure</i>	-also known as “‘frame-structure’/‘overall-structure’ of a dictionary. -contains the whole component parts of a dictionary including ‘ <i>front-matters</i> ’, ‘ <i>middle-matters</i> ’ and ‘ <i>back-matters</i> ’.
	<i>Macro-Structure</i>	-refers to the structure of the main-entry or the headword. -concerns about the arrangement of the headword, either alphabetical or systematic (thesauri).
	<i>Micro- Structure</i>	- is the most compulsory part of a dictionary. -deals with the structure of individual lexical entries; including types of lexical information and the way they are organized in the dictionary.
	<i>Medio-Structure</i>	-also called ‘ <i>meso-structure</i> ’ or cross-reference -deals with the relations between lexical entries and some other source of information in the form of cross-references.
	<i>Access- Structure</i>	-studies the component parts of the overall design of a dictionary which enables the user to search for a certain item of information.
	<i>Distribution-Structure</i>	-refers to the structure of the linguistic and encyclopedic information which appear in various places in the dictionary.

**Table 7:** Dictionary structure: summarized from Bergenholtz and Tarp (1995:187-223) Hausmann and Wiegand (1989, in Hartmann, 2003). Hartmann (2003:4-3), Béjoint (1994/2000), Atkins and Rundell (2008), Landau (2001), and Svénen (1993) Nielsen (2003)

As summarized in the table above, there are about six basic types of dictionary structure. Bergenholtz and Tarp (1995:187) argued that: “Without these six central structures, a dictionary would not be a dictionary.” Hence, in chapter three of this thesis, the selected Tigrinya dictionaries are evaluated in terms of the various components of the dictionary structure recapitulated above.

#### 2.2.4. Dictionary Use

Dictionary use is one of the most commonly researched areas in lexicography. Almost all lexicographers agree that dictionaries can be good only if they are useful to their users. For example, Atkins and Rundell (2008:28) said “Know your users: that way, the dictionary will give them what they need.” Hence, in order to make a dictionary more user-friendly it is vital to know who the users are, and what they use the dictionary for. In other words, the dictionary compilers have to know/analyze the intended users such as: adult/children, native/L<sub>2</sub> learner, general user/specialists, the users’ linguistic knowledge and their familiarity with symbols, cross-references, labels, and abbreviations etc.

Therefore, the knowledge regarding dictionary user is an essential component to be considered in the pedagogical lexicography. Pertaining to this, Piotrowski (1994:29) pointed out “It is the user who has to interpret the conventions of dictionary descriptions.”

Piotrowski also reveals that a number of studies about dictionary use have been conducted in European Universities.<sup>27</sup> As is stated in Bějont (1994: 144), an early study was conducted by Tomaszczyk (1979) on a total of 449 respondents (foreign language university students, teachers and professional translators) in Poland and the United States. He used 57 questionnaire items aimed at investigating of the use of bilingual and monolingual dictionaries in the study of foreign language. He found that all respondents use bilingual for their encoding activities at all levels. But more advance respondents used monolingual dictionaries. Another study was conducted by Boxer (1980) on a total sample of 342 Japanese students at various levels. His findings showed that all the respondents use bilingual dictionaries which they had found them easier to use. He concluded that monolingual dictionaries are more preferable than bilingual dictionaries. Furthermore, Bějont (1980/1) conducted a study about dictionary use on a total of 122 students of English at the University of Lyon through 21 questionnaires items. He found that the respondents satisfied more with their monolingual dictionaries than with bilingual dictionaries.

Discussing different studies on dictionary use, such as the above, Lew (2004:17-32), summarizes “dictionary users tend to give higher ratings to monolingual dictionaries than to bilingual dictionaries.”

Lew (2004) also presented assessment ratings used by Polish learners of English bilingual and monolingual dictionaries. Data for the study were obtained using the questionnaire from 712 Polish learners of English. He found monolingual dictionaries were given significantly higher ratings than bilingual dictionaries. His respondents appeared to be using a bilingual dictionary for a few times a week. Unlike the findings of the previous

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<sup>27</sup> Selective summary of some of these studies is found in Bějont (1994), Piotrowski (1994), Hartmann (1999) and Lew (2004).

studies, which many of them found that advanced learners used monolingual dictionaries, Lew found an “increase in the frequency in bilingual dictionaries at the highest proficiency level”.

The above studies show us that dictionary use is part of dictionary evaluation. Yin Wa and Taylor (2003) claimed that, assessment in terms of principled study of dictionary use by target users is a vital component to be incorporated in dictionary evaluation.

Hartmann (2003:7) also asserted that “whatever the content ... and presentation ... of a particular dictionary, these can only become effective if they benefit the particular user”. Likewise, Atkins and Rundell (2008:406) found three different definitions of the word ‘cattle’ due to the reason that each of the dictionaries were designed for different groups of users: one intended for schoolchildren in Anglophone countries of Africa, the other aimed at learners of English with a low label of proficiency, and the third targeted for general user. This shows that even definitions can differ in response to the user’s skill, level, and so forth.

Another important point to consider in relation to the undergoing discussion is types of dictionary use. Accordingly, Hartmann (2003:6) distinguished about six types of dictionary use. One of these he referred to as ‘*pedagogical lexicography*’ concerns with the role of dictionaries in education and other professional activities. The second is referred to as ‘*dictionary awareness*’. This type of dictionary use is concerned with whether the user is familiar with available dictionary kinds and their use. The third type of dictionary use is referred to as ‘*sociological perspective*’ which concerns with the number of users and their frequency of use. Another type of dictionary use is what Hartmann called ‘*need analysis*’ refers to the specific activity in contexts. The fifth type of dictionary use is the ‘*skill analysis*’ which refers to the ability of the user in utilizing variety of information provided in the dictionary. Finally, Hartmann also used the term ‘*backwash*’ to refer to the type of dictionary use that appears to characterize for its effect on pedagogical lexicography.

In the overall, it is not logical and inclusive to criticize a dictionary without considering the perspective of the user. The implication, therefore, is that dictionary evaluators need to be able to consider users of the intended dictionaries while they examine the qualities/standards of the dictionaries. And, this is what the theory of lexicography also supports. The theory underlines that users' skills of use and quality of dictionaries are two fundamental issues of the same coin.

### **2.2.5. Dictionary Criticism/Evaluation**

Dictionary criticism refers to the process of evaluating existing dictionaries in terms of selected criteria. Hartmann (1996) cited in Jackson (2002:173) defines dictionary criticism as "time-honored activity of evaluating and assessing lexicographic products." In order to conduct an objective evaluation, there should be clear criteria. In this regard Jackson (2002:173) said "One of the crucial issues for dictionary criticism is to establish a sound and rigorous bases on which to conduct the criticism, together with a set of applicable criteria."

The nature of the evaluation process is usually performed on the bases of the different structures of the dictionary and dictionary use stated above. Hence, there are internal and external evaluation techniques. While the external evaluation mainly focuses on the front and back matter of the dictionary, the internal evaluation limits itself to the main body of the dictionary proper. On the other hand, the users' perspective concerns a bout the practical aspect of the dictionaries.

Eventually, the researcher adopted and developed different criteria from various sources and able to assess the effectiveness of the selected dictionaries. Above all, a standard dictionary must provide many or all of the following categories (*Table -5*) of the lexical information about the headword.

**Table -5: Lexical information categories inside the dictionary entry (microstructure)**

<b>Basic information categories in the entry</b>	<b>MLGP</b>	<b>BLGP</b>	<b>MLSP</b>	<b>BLSP</b>
- Information about the form of the unit (spelling, syllabification, phonetic transcription)	+	+	+	+
- Grammatical information (part of speech, inflections, etc.)	+	+	+	+
- Etymological information,	+	-	±	-
- Diasystematic information, indicating restriction of usage (geographic labels, temporal labels, register labels, field labels, commentary labels, etc.)	+	+	±	±
- Definitions: Explanatory (semantic) information	+	+	+	+
- Translation equivalents	-	+	-	+
- Other semantic information (e.g. <i>figuratively</i> or glosses)	+	+	+	+
- Syntagmatic information, information about the use ( e.g. collocation,)	+	+	+	±
- Paradigmatic information concerning synonyms, antonyms, etc.	+	+	+	±
- Notes, which may present various types of information	+	+	+	+
- Pictorial illustrations	+	+	+	±
- Cross-references	+	+	+	+
- Derivatives and compounds (e.g. fixed expressions in which the headword figures)	±	+	+	±

**Table 8: Lexical information categories inside the dictionary entry (microstructure),**  
Summarized from: Landau (2001), Roberts (1997), Atkins and Rundell (2008).

<p><b>Key:</b> MLGP: monolingual general purpose dictionary; BLGP: bilingual general purpose dictionary. + indicates Presence of Categories. - Categories do not exist</p>	<p>MLSP: monolingual specific purpose dictionary; BLSP: bilingual specific purpose dictionary ± present or absent of Categories,</p>
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As stated in the above table each information category apart from that of translation equivalent can be found in a monolingual general purpose dictionary (MLGPD). It has more varied and more complex microstructures than do the other dictionaries. For example, in monolingual specific purpose dictionary (MLSPD) there may be certain information categories that are not exist in every entry like pictorial illustrations, cross-references, derivatives, paradigmatic information etc. because the lemma may not lend itself to such treatment.

Moreover, the bilingual general purpose dictionary (BLGPD) dictionaries contain fewer information categories than do the monolingual dictionaries described above and more

information than the bilingual specific purpose dictionary. These various kinds of information that can be found within a head word or lemma are organized using ordering devices such as figures, letters, brackets, punctuation marks, and symbols and are further discerned using typographic devices like bolding, italicization, etc. (Roberts, 1997, Atkins and Rundell, 2008). The researcher will evaluate the microstructure of the selected dictionaries on the bases of the above criteria.

### 2.2.6. Computational lexicography

Computational lexicography is an interdisciplinary field dealing with dictionary from a computational perspective. It emerged as a separate discipline within computational linguistics with the appearance of electronic dictionaries<sup>28</sup>. The head word includes all the information found in the print dictionaries like pronunciation, parts of speech, and the like (Litkowski, 2006:753).

The classification of academic lexicography in figure-1 on the right side of the categories of dictionary research, Hartmann (2003) suggests that there is a branch academic lexicography called 'computational lexicography'. Even though this is the youngest sub-branch of lexicography; it is an interdisciplinary area that attracts numerous scholars from various fields mainly linguists, computer scientists, lexicographers and so on (Hartmann, 2003). It includes different areas like 'corpus linguistics', concerned with the management and explanation of the text materials as a source of data and evidence for lexicographic work. The selection of the lexicon based on frequency and utility criteria. '*Lemmatization*' concerns about integration of word paradigms and derivatives under single canonical forms that are used as entry words. '*Sense discrimination*' deals with the principled dissection of the various meanings of polysemous entries and '*Pictorial illustration*' regards about graphic support to the dictionary. '*Word-processing*' and database systems use to facilitate dictionary editing and finally '*Computer aid for printing and publishing,*' etc (Hartmann, 2003:7).

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<sup>28</sup> with the invention of the machine-readable tapes of the Merriam-Webster Seventh Collegiate Dictionary and the Merriam-Webster New Pocket Dictionary in the 1960s by John Olney et al. at System Development Corporation . Computational lexicography has played a vital role to the understanding of the content and constraints of print dictionaries for computational functions (Litkowski, 2006).

### **2.2.7. Dictionary research as an interdisciplinary subject**

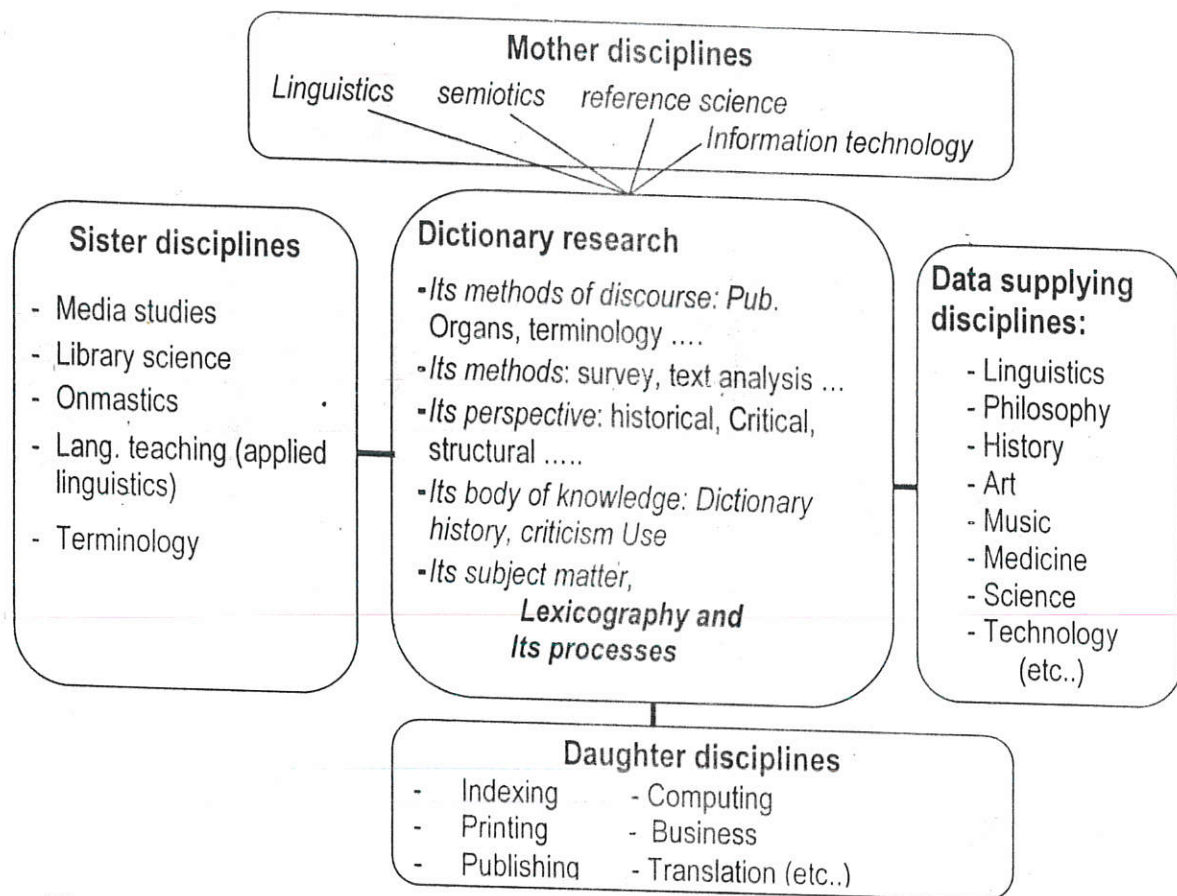
As already pointed out above, lexicography is a multidisciplinary field of study. Its products such as dictionaries and other reference materials like encyclopedias have a practical advantage in every human intellectual and professional activity such as art, science, and education, only to mention some.

Accordingly the interaction of lexicography to other fields of study is inevitable. In this regard Hartmann (2003:437) said "This is the direction in which research in lexicography should be proceed". As to Zgusta (1971:1) "The lexicographer should know everything...[S/he] must take into consideration not only the whole structure of the language in question, but also the culture of the linguistic community in all its aspects." Hartmann (2003) demonstrates the interdisciplinary relationships of lexicography with other disciplines as in the diagram below.

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**Figure 5:** Interdisciplinary links of Lexicography, adopted from Hartmann (2003:440)

As distinguished in the above diagram lexicography is a highly interdisciplinary study with other fields. According to Hartmann (2003) the interdisciplinary link of lexicography can be demonstrate on the bases of mother, sister, daughter and data supplying disciplines. In terms of 'supperordinate' or mother discipline lexicography has originated from linguistics, semiotics, reference science, and information technology. In terms of subordinate or daughter disciplines it relates with Indexing, printing, publishing, computing, business and translation and so on. Moreover in relation to neighboring or sister disciplines lexicography associations with media studies library science, applied linguistics and terminology etc. Finally lexicography obtains data form various disciplines like linguistics, philosophy, history, art, medicine, science and technology and so on as clearly distinguished in the figure above.

### **2.2.7.1. Linguistics and Lexicography**

Some scholars like Hartmann (2003), Lew (2007), and so forth treat lexicography as an autonomous field of study with its own methodology and theory. However, others like Haviland in Gippert et al (2006), Hanks in Brown (2006) regard lexicography as a branch of linguistics (General linguistics), and still other scholars like Kirkness in Davies (2005), Carter (1998) treated lexicography as a branch of applied linguistics. There are also scholars who tried to define lexicography as a branch of computational linguistics (computational lexicography) with the impending of electronic dictionaries. Then, where is the place of lexicography? Piotrowskiy (1994:11) said “At present lexicography is under pressure from three sides: from linguistics; from its own successful practice; and from metalexigraphers.... [It] is fairly independent, both in its objectives and methodology.”

As stated before, the basic concern of the lexicographer is the ‘lemma’ or lexis which is studied with the field of micro-linguistics for example; knowledge phonetics and phonology provide the lexicographer to designate the pronunciation of a particular language in a dictionary. Morphology also shows the dictionary compiler how to treat affixes in his dictionary. Moreover syntax helps to designate grammatical information, and semantics remains the backbone of dictionary making. For instance without knowledge of lexical semantics, it is tricky to give the definition the entry of dictionary. Hence, all branches of micro-linguistics are the most key elements a dictionary. Furthermore, the fields of macro-linguistics like sociolinguistics, historical linguistics, psycholinguistics, computational linguistics and so on are also vital for both theoretical and practical lexicography.

As Singh (1982) said, lexicography is usually regarded as an applied discipline within linguistics. Its practical problems are solved by utilizing the findings of linguistic theories. The whole work of lexicography starting from the selection of entries to definition, exemplification, etc depends on the work of different branches of linguistics. The frequency of head words that the lexicographer usually selects is initiated from the grammatical study of a language.

Moreover, the phonetic study of the language helps the lexicographer to signify the spellings and pronunciation of the lemma or head words in a dictionary. Morphological study of the language helps him/ her to assign grammatical information. Besides, to determine the central meaning of a polysemous word, the lexicographer is helped by the parameters of historical linguistics. For instance, etymology endows him the clue to decide the basic sense or meaning. Hence, knowledge of historical linguistics assists in tracing the origin and development of the form and meaning of the words in etymological dictionaries.

Also within synchronic and descriptive dictionaries the methods of historical linguistics helps to demonstrate the temporal status of words as archaic, obsolete etc. Mainly etymological study aids in differentiating between homonymy and polysemy. On the other hand, wherever etymological consideration is not applicable, it is the native speaker's intuition which is used as the determining factor. In this regard the lexicographer is assisted by the principles of psycholinguistics which also supplies material for vocabulary development (Singh, 1982).

Furthermore, vocabulary studies in sociolinguistics, dialectology and stylistic studies like slang, jargon, taboo, etc. helps the lexicographer to give status or to decide the labels of entries in his dictionary (Singh, 1982).

All branches of linguistics are very fundamental for academic and practical lexicography. This confirms that in his work the lexicographer has, to a large extent, always to rely on the findings of various areas of linguistics. However, it is not alone the findings of linguistics which assist in the solution of lexicographical works; the lexicographical products are equally used from other disciplines like education (applied linguistics), terminology and lexicology particularly in the fields of technical terminologies.

Due to the fact that lexicography is a practical study, the lexicographer should not wait for certain findings in linguistics or other disciplines for the solution of his problems. As already stated some linguistics theories might fail to meet the needs of a lexicographer. There are diverse schools of linguistics challenging with each other in theoretical

linguistics. The findings of one theory might reject by the other. For instance as stated before logical semanticists contradict with lexical semanticists in their consideration and treatment of the lexicon (Saeed, 2003).

Piotrowskiy (1994: 12) stated the following:

As to methodology, linguists usually study small amounts of data in an intensive way; they study paradigmatic cases, treated subsequently as representatives of whole classes of facts. Lexicographers, on the other hand, deal with extensive, often superficial, descriptions of huge amounts of data. What is remarkable yet is the fact that the extensive description in lexicography is very expensive, while linguistics, if large corpora are not needed, is not too expensive. This means also that experimentation is not a standard feature in dictionary-making, because it tends to be expensive.

That is why lexicographers have already developed their own theory “metalexigraphy” and are guided by the practical considerations of a dictionary user. Although the linguistic theories are quite significant for the lexicographer, practical utility is more basic for him. In this regard, Urdang (1963:594) quoted in Singh (1982) said “Lexicography, in practice is a form of applied linguistics and although more theoreticians would be a welcome addition to the field, they must remember that their theories should be interpretable above all in terms of practicality.”

All in all, lexicography and linguistics are highly related disciplines; knowledge of linguistics is very fundamental for works in lexicography. Hartmann (2003) is absolutely right when he treated linguistics as a mother to lexicography. After all, most academic lexicographers are linguists or those who gained training in linguistics ( Bejoint, 2000).

### **2.2.7.2. Lexicography and applied linguistics**

According to Meier (2003) and Kirkness, in Davies and Elder (2005) lexicography should be treated, as one area of applied linguistic to produce the text as standard reference work designed to be practical use and benefit in real life conditions. According to him, the dictionary should be measured by its practicality and worth for the public. Lexicographers should consider the users need, and dictionaries ought to solve practical problems and there should be correlation between the theory and the practice. In this

regard, producing a sophisticated dictionary without considering users need, levels, capacity (price), and skill of dictionary use is worthless. Hence, research on dictionary use and evaluation should conduct fused together. That is why “the literature on lexicography currently devotes much attention to dictionary users in academic research, educational practice, and leisure activity” (Ibid: 58). In this regard, lexicographers are applied linguists who endeavor to resolve real language related problems via considering users need skill etc. Besides, as descriptive linguists, they empirically analyze and describe language with emphasis on individual items of the vocabulary of a language although they do not require linguistic knowledge alone (ibid).

### 2.2.7.2. Lexicography and Terminography

Terminology is the study of the field of activity concerned with the collection, description, processing and presentations of terms i.e. lexical items belonging to specialized areas of usage of one or more languages (Hanks, 2006; Kageura,2002; Bergenholtz and Tarp, 1995). As stated above, lexicography and terminology are sister disciplines and complimentary fields that one can benefit from the other. They compliment each other both in structure and function. At the structural level, while lexicography employs alphabetical order, terminology uses thesaurus approach (the arrangement from concept to terms). At the functional level, their main pursue may contradict. For instance, the goal of lexicography to help readers understand or decode texts but terminology aims to help users encode or write texts (Bergenholtz and Tarp, 1995, Riggs in Hartmann, 2003, Hanks 2006). The following table summarizes the difference between terminology and lexicography.

<b>Lexicography</b>	<b>Terminology</b>
Deals with words (usually in isolation)	deals with terms and concepts
Provides all grammatical information	provides only relevant grammatical information
Descriptive	Prescriptive i.e. recommends correct usage
Treats words as a universal set taken from general language	treats terms belonging to a specific domain language
Arranged in strict alphabetical order	Arranged in thesauri/ onomasological principle i.e. according to systematic concepts, or grouping
The target group is the layman for decode texts	The target group is the expert for encode texts

**Table 9:** Lexicography and Terminology summarized from Bergenholtz and Tarp (1995:10-11)

Regardless of the above differences, the product of one is crucial for the other. For example, lexicographers benefit from the work of terminologists. In this regard, Riggs in (2003:346) asserted:

Lexicographers have an equal opportunity to participate. Doing terminology---provide a useful tool: the onomasological principles of descriptive terminology can easily enhance the capacity of lexicographers to write succinctly and clearly about the important problems that recur in their professional work.

On the other hand, the final products of terminology suitably reach to the public via employing the principles of lexicography compiled as a dictionary. For example, in Ethiopia the so-called “*Sciences and Terminology Term Translation Project*” and its publications within six years (1981-1986), to protect Amharic from uncontrolled or too heavy influx of foreign lexical borrowings, wind up with the publication of a dictionary entitled “*Science and Technology Dictionary: Amharic-English*” in 1996 by the then ‘*Ethiopian Languages Academy*’. This is a good practical example that the goal of Terminology accomplishes via lexicography. Generally speaking lexicography and terminology are both interrelated and complementary disciplines. Lexicographers and terminologists should work together for fruitful and practical work.

### **2.3. Dictionary Making**

As distinguished in figure-1, lexicography encompasses two major areas: dictionary research (theory) and dictionary making (practical). Although the major objective of this research is with the first one already discussed in detail in the above sections; it seems significant to incorporate a summery of the principles and procedures on dictionary making; hopping this might shed light to the current study and help dictionary-compilers to follow and the users to know.

According to several experts in lexicography such as Zgusta (1971) Landau (1984/2001) and Hartmann (2001, 2003) Atkins and Rundell (2008), etc each dictionary project is unique calls for its own set of specific rules according to the main purpose of the

dictionary. Besides, as pointed out in the previous discussion, every dictionary should follow the principles and guidelines of ‘metalexigraphy’.

The work on the compilation of a dictionary from the beginning to the final printing can be distinguished into various phases, each phase having different steps. For instance, just like any textbook writing, dictionary-compilation employs the steps of planning, writing, editing, revising and producing. In this regard, Landau (2001:343) confirms that: “Every dictionary has essentially three stages, planning, writing and producing.”

Atkins (1992/3), in Fontenelle (2008) also distinguished three crucial steps known as pre-lexicography, macro-structure, and micro-structure and each contains its own divisions and subdivisions.

She (Atkins) distinguished pre-lexicography as the stage that includes decisions on things related to publishing specifications and those related to the source of evidence mostly made by publishers. It depends on their judgment like the market, budget, price, type (specialized or general purpose), language (bilingual, monolingual or tri/multilingual), Content (the number of entries, illustrations or pronunciation etc) user for whom the dictionary is prepared (adult, children, native or learner etc). The phase of pre-lexicography also comprises the judgment on the physical feature of the dictionary such as its size, type and typography (format, fonts etc). Moreover, choices on the sources of evidence are important. The entries can gather from field work, corpus or other written materials in the language.

The second main branch is decisions on the macrostructure mainly concerns on how entries are arranged in a dictionary. On the other hand, the phase of microstructure concerns on decisions of all information in the internal structure of the entry presentation and analysis (see details in Atkins in Fontenelle, 2008:35-39). In general, the above discussion shows basic stages on the processes of dictionary making mainly for a large project of practical lexicography. Even any individual lexicographer need to follow the following key stages.



entered duration of a project, the writing at least 50%, and the production stage, which included composition, the remainder.”

Therefore, scheduling is considered as notorious or difficult aspect of dictionary planning. The next step is selecting word lists for the dictionary entry or headword. In this case, the lexicographer should not misgauge the length and the scope the dictionary. Both publishers, editors, lexicographers should be wise and realistic when they schedule and work effectively on what they scheduled or planned time.

### **2.3.1.2. Source and selecting of the dictionary Entry**

According to Singh (1982) and Landau (2001), once the size of the dictionary has been established, the wordlist must be selected from a verity of sources like previous dictionaries, books, new papers, magazines, and so on. Moreover, entries can be collected from the different dialects of the speech community. Such as oral speech or oral literature like proverbs, riddles, cultural ceremonies, workplaces, media, TV, radio, etc in terms of semantic domains. This will help the lexicographer to get verities of data and able to gather a comprehensive data for his dictionary.

For instance, if the interest of the lexicographer is to compile an etymological dictionary, he may rely on old materials and elderly people. On the contrary if he is interested to write a synchronic dictionary, he should collect data on the current or particular available sources. Besides if she or he is aimed to compile general dictionary, it needs to collect data from the above variety of sources and even from corpus usually in the case of bilingual dictionaries e.g. with English.

In general, it is compulsory that a thorough planning is done before the work begins. The first point to be regarded is about the type of the dictionary. The work on dictionary varies according to the types of dictionaries. For example, the entry in a pocket dictionary is much lesser than the entry of concise dictionary. Moreover, the lexicographer should decide about the language of the dictionary. If there are many dialectal variations, the dictionary-compiler has to decide whether all the dialectal forms are to be included in a dictionary or only a few of them depending on the purpose, budget, and time schedule of

the dictionary. Furthermore, decision on the incorporation of technical terms, archaic words, idioms and proverbs need to be made at an earlier stage of the work. The lexicographer has also to consider whether the language has a diglossic situation. If there is diglossia, the dictionary-compiler should decide which variety is to be included in the dictionary or whether he is going to include both the varieties. Besides, the social and stylistic variations of the language are also needed to be considered like all the professional registers, colloquial speech, jargons etc. The inclusion of all this is very problematic if not impossible. Therefore, the lexicographer has to decide as to how much of it is included in his or her dictionary (Singh 1982 & Landau, 2001). These decisions should be taken before the beginning of the work on the dictionary and be strictly followed. All these decisions must be documented so that when new hands join the project there is no trouble in following the line of the work. The instructions must be complete with minutest details. In order to do this, it would be useful if a proposal is prepared for the project. This proposal may contain description and instructions regarding the collection of material, preparation and filling up of cards, the compilation of word list, the structure of the dictionary entry, description and definition of meaning, labels, phraseology, illustrations, grammatical characteristics of words, script and pronunciation and so forth (Singh 1982).

As stated above, the collection of data varies for different types of dictionaries. For languages which have literary tradition, the entries can be collected from written texts. But for languages those do not have literature the word list is to be collected by field method from the speech community i.e. from oral texts like proverbs and riddles etc. All in all, the lexicographer should be cognizant of the source from which the material is to be collected and the method of collection via employing field linguistic methods (Singh, 1982, Landau, 2001).

### **2.3.2 Writing, Proof reading/Editing and Producing a dictionary**

The lexicographer must follow the principles of metalexigraphy, each of the mega-, macro-, microstructures etc discussed in section 2.2.4 of this thesis. Especially all the microstructure procedures like the principles of defining; sense discrimination,

pronunciation etc are key elements of a dictionary entry.

Proof reading is the stage which involves the setting of entry. The work includes fixation of the headword, its pronunciation, grammatical characteristics and the fixation and selection of definitions etc of the entry. Dictionaries need to proofread as many times as possible. In this regard, Sevensen (1993:248) stated:

Proofreading dictionaries is an extremely demanding task the reader must not only check that all relevant text is included, that everything is in the right order and spelt correctly. He must also be aware of a number of type-faces and their use, as well as other lexicographical conventions in relation to phonetic symbols, section marks, lexicographical symbols, and so on.

This asserts that, proof reading and editing are crucial tasks in practical lexicography. The editor should have knowledge of lexicographical conventions and principles. For bilingual dictionaries different editors should be involved. For instance, a source language editor to read the main entries and examples, Target language editor to read the glosses and translations of examples, experts for technical vocabulary, linguistic experts for grammar and so on. The editors must be trained to know what to look for (Bartholomew and Schoenhals, 1983:231-253; Landau, 2001:382-401).

The last stage, the stage for preparation of the press copy involves arrangement of entries, the use of notations and preparing an introduction for the dictionary, which includes general quality of the dictionary, guide to pronunciation, and so forth.

However, these phases are not strict divisions of work and they are not exclusive to each other. In actual work there can be a lot of repetition. For instance once the lexicographer has collected data, which might take several years, many new texts may appear in the language and many new words may be added to the lexicon of the language. Many lexical units may gain new shades of senses. Besides while scrutinizing the data some new information not available before can be found. Thus, since language change and language development can occur, dictionary-compilers need to up-to-date their dictionary. This shows that data collection should not stop at the first stage. While writing the entries the various kinds of lemmas to be included are analyzed in terms of their form

## CHAPTER THREE

### 3. DATA ANALYSIS, INTERPRETATION, AND PRESENTATION

In this chapter, the data collected from the dictionaries and the respondents (students, instructors and compilers) are analyzed and interpreted. The chapter consists of four sections. The first section deals with the data gained from the intended dictionaries. The second section presents the analysis of the data obtained from the students. The third section presents the analysis of the data obtained from the teachers. And the fourth section presents the data gained from compilers of the dictionaries under study. Where necessary, discussion is substantiated by evidences from the literature.

#### 3.1 EVALUATING THE EFFECTIVENESS OF THE SELECTED DICTIONARIES

Initially an attempt is made to evaluate the standards /qualities of Tigrinya dictionaries on the bases of selected criteria. As stated earlier (see 2.2.5), effective ability of evaluating a dictionary is one of the very essential professional activities for applied linguists and lexicographers.

##### 3.1.1 Evaluating the Mega-Structure

Mega-structure refers to the front and back-matters of dictionaries. To facilitate an effective use, a dictionary should include a clear and precise front and back matters. Typically, the front matter is compulsory than the back matter. Because, it encompasses basic issues like the users' guide, abbreviations, title and preface and so on. The users' guide can also incorporate different sub-components such as alphabetical order of the head word, Pronunciation guide, Parts of speech, and so on. If a dictionary fails to include the basic categories of the front matter it can not be considered as a standard dictionary.

Though it is not compulsory the back matter of a standard dictionary can also contain different information like grammatical sketch, phonology and morphophonemic, derivational systems and compounding patterns a language, etc.

Then let us examine how the selected Tigrinya dictionaries include the most important categories of the front and back-matter.

### I. LISANÄ-AGAZI

LISANÄ-AGAZI, a detailed, step-by-step monolingual Tigrinya dictionary was written and published by Girmatsion Mebrahtu in 1976 E.C. According to Arefayne (1985) Girmatsion was born in Seraye, Eritrea in 1926 E.C, and attended church school in Gonder and got his title 'Mergeta'. Then, he attended modern school and graduated from Wollo Teacher training Institution. He was an Amharic teacher and latter an employee in the ministry of education. Girmatsion was one of the scholars who designed the new educational curriculum in 1974 E.C. Thus he was eminently well qualified to write this dictionary even though he was not trained lexicographer. The dictionary was first published by the author at the 'Dogali Printing Press' in Asmara. It was reprinted again in 1983/1976 E.C. at the Berhanena Selam Printing Enterprise, in Addis Ababa. It is the first Tigrinya monolingual dictionary containing around 15600 to 20,000 distinct lexical items or head words. Besides, the dictionary is supplemented by 25 pages of front matter. Inside the front cover, title of the dictionary, dates of publication, tables of contents and publication place have been included. The general introduction of the dictionary encompasses various discussions on language in general and the origin and development of Tigrinya in particular. Moreover the section contains detailed and comparative lists of Ethiopic script and how these were developed in relation to other Semitic languages Arabic and Hebrew, etc. Hence the author had tried to provide detailed information on Tigrinya language in general and how to use the dictionary in particularly.

Hence, in terms of the categories of the front-matter, this dictionary contained relevant information; although most of the compiler's arguments and his attempt to preserve the archaic letters such as 'h' /ሀ/ 's' /ሠ/ are not generally acceptable and such symbols are not currently in use.



	<i>Major categories</i>	LISANE-AGZAI
Back Matter	i.. Grammatical sketch	-
	ii. word classes	-
	iii. inflectional system	-
	iv. Derivational/compounding	-
	v. Appendices	
	- Lists of affixes	-
	- Numbers	-
	- Weights and Measures	-
	- Names of months	-
	- days of the week	-
	- Kinship terms	-

**Table 11:** Evaluating the Back-matter of 'LISANE-AGZAI'

In general, on the bases of the criteria of the front-matter it can be considered as good dictionary. Most categories of the back-matter like lists alphabets are also included in the front matter.

## II. MTD (Monolingual Tigrinya Dictionary)

This monolingual Tigrinya dictionary was compiled and published by the Ethiopian language academy in 1989 E.C. It took about 14 years to get it published. Its compilation process begun in 1975 E.C. and completed in 1989 E.C. As described in its front matter, it was compiled by six employees of the academy.<sup>30</sup>

The dictionary consists of about 19,400 distinct entries presented on 970 pages of the dictionary proper. It also contains 8 pages of front matter, one page tables of contents, one page lists of contributors, acknowledgement, preface, introduction, abbreviations and the users' guides.

The introduction part contains a list of reduced alphabets of the language. In other words, the repetitive characters like 'ሠ' /s/ 'ኃ' /h/, and 'ጸ' /s'/ are excluded on the bases of the linguistic principle 'one symbol for one sound'. Furthermore, the users' guide provides different relevant information like, gemination, compounds, arrangement of entries, etc. augmented with some selected examples.

<sup>30</sup> namely Tekeste Tekle (1979-1989 E.C), Daniel Mehari (1986-1987), Tsehaynesh G/yohanns (1976-1985), Tesgay W/mariam (1975-1985), Tadese Tekle (1979-1985) and Tesfay Tewelde (1977-1987). Besides, there were some individuals who participated relatively for short time and their names are not included in the dictionary.

Front-Matter	Major-categories	Sub-categories	MTD
	(i) <i>Front cover</i>	-hard cover	-
		-Plastic/ laminated	-
	(ii) <i>Title pate</i>	-Title of the dictionary	+
		-compiler's name	+
		- publisher's name	+
		- years of publishing	+
	(iii) <i>Dedication</i>	(optional)	(-)
	(iv) <i>Table of contents</i>		+
	(v) <i>prologue or foreword</i>	(optional)	(-)
	(vi) <i>preface</i>		+
	(vii) <i>Introduction</i>		+
	(viii) <i>Users' guide</i>	- Alphabetical order	+
		- structure of the head word	+
		-Pronunciation/gemination guide	+
		-guide on grammatical information	+
		- Sense number system	+
- guide how to use Examples		+	
- guide about Etymology		-	
- guide on sub-entries		+	
- guide on how to use of cross-reference		+ <sup>-</sup>	
- Abbreviations /symbols		+	

**Table 12:** Evaluating the front matter of 'MTD'

*Note that:* + ... existing / available                      ( ) ... optional  
+<sup>-</sup> ... available but not properly used    -...Not available/ not existing

Therefore, as shown in Table above MTD incorporates almost all basic categories of the front-matter. However, it did not contain anything in its back-matter as stated in the table below.

Back Matter	Major categories	MTD
	i.. Grammatical sketch	-
	ii. word classes	-
	iii. inflectional system	-
	iv. Derivational/compounding	+ <sup>1</sup>
	v. Appendices	
	- Lists of affixes	-
	- Numbers	-
	- Weights and Measures	-
	- Names of months	-
	- days of the week	-
- Kinship terms	-	

**Table13:** Evaluating the Back-matter of 'MTD'

Key: +<sup>1</sup> ...included in the introduction

As shown in the table above although the dictionary lacks hard/plastic cover, it contains all the properties of the front matter. But MTD lacks all the categories if the back-matter except derivatives and compounds incorporated in its front matter.

### III. NAS'LA

NAS'LA is also a monolingual Tigrinya dictionary which comprises about 1566 head words presented on 253 pages of dictionary proper. It also contains 7 pages of front matter. It was written by G/igziabher Bihon, an experienced teacher and published, in 1987 E.C. It contains several components of the front matter as in the table below.

Front-Matter	Major-categories	Sub-categories	NAS'LA
	(i) <i>Front cover</i>	-hard cover	-
		-Plastic/ laminated	-
	(ii) <i>Title pate</i>	-Title of the dictionary	+
		-compiler's name	+
		- publisher's name	+
		- years of publishing	+
	(iii) <i>Dedication</i>	(optional)	(-)
	(iv) <i>Table of contents</i>		-
	(v) <i>prologue or foreword</i>	(optional)	(+ <sup>b</sup> )
	(vi) <i>preface</i>		-
	(vii) <i>Introduction</i>		+
	(viii) <i>Users' guide</i>	- Alphabetical order	+
		- structure of the head word	+
		-Pronunciation/gemination guide	±
-guide on grammatical information		-	
- Sense number system		+	
- guide how to use Examples		+	
- guide about Etymology		-	
- guide on sub-entries		+	
- guide on how to use of cross-reference		-	
- Abbreviations /symbols	-		

**Table 14:** Evaluating the front-matter of 'NAS'LA'

This dictionary includes the most important components of the front matter. The introduction part consists of the origin, development of the language and the users' guides. It also contains relevant information about dialects. Hence, it can be also considered with relevant front mater. However, pertaining to the back-matter, it doesn't contain anything like MTD. But at its back cover page, two prologues are stated by the author's acquaintances.

#### IV. MIRAS

MIRAS<sup>31</sup>, Tigrinya-English bilingual dictionary compiled by an indigenous author Daniel Teklu. It was published in 2007 and consists of about 3509 main entries presented on 354 pages of the dictionary proper.

Front-Matter	Major-categories	Sub-categories	MIRAS
	(i) <i>Front cover</i>	-hard cover	-
		-Plastic/ laminated	-
	(ii) <i>Title pate</i>	-Title of the dictionary	+
		-compiler's name	+
		- publisher's name	-
		- years of publishing	+
	(iii) <i>Dedication</i>	(optional)	(-)
	(iv) <i>Table of contents</i>		-
	(v) <i>prologue or foreword</i>	(optional)	(+ <sup>b</sup> )
	(vi) <i>preface</i>		-
	(vii) <i>Introduction</i>		+
	(viii) <i>Users' guide</i>	- Alphabetical order	±
		- structure of the head word	±
		-Pronunciation/gemination guide	-
-guide on grammatical information		±	
- Sense number system		±	
- guide how to use Examples		+	
- guide on the use of sub-entries		+	
- guide on how to use of cross-reference		±	
- Abbreviations /symbols	+		

**Table 15:** Evaluating the front-matter of 'MIRAS'

key: ± ... not full or incomplete +<sup>b</sup>...included in the back cover page

Its front matter includes three pages of introduction and one page lists of abbreviations and its significance. As stated in the table above this dictionary includes several categories the front matter. But it does not contain any back matter property.

#### V. LISAN

LISAN, English-Tigrinya bilingual dictionary contains several main categories of the front matter such as title, number of words, author's name, and years of publication. Though it is not a plastic/lamented or hardcover the front cover looks attractive with green, yellow and purple colors. However, the quality of the paper looks low standard. This might be due to the publisher's interest to sell it with relatively fair price.

<sup>31</sup> Although there are two big volume Tigrinya-English bilingual dictionaries compiled by a foreigner author (Kene, 2000); MIRAS is easily accessible in the market.

I. Front-Matter		LISAN	
1	Front cover	-hard cover	-
		-Plastic/ laminated	-
2	Title pate	-Title of the dictionary	+
		-compiler's name	+
		- publisher's name	+
		- years of publishing	+
3	Dedication	(optional)	(-)
4	Table of contents		-
5	prologue or foreword	(optional)	(+ <sup>b</sup> )
6	preface		-
7	Introduction		+
8	Users' guide	- Alphabetical order	±
		- structure of the head word	-
		-Pronunciation/gemination guide	-
		- guide on grammatical information	+
		- gloss (translation equivalent)	+
		- Sense number system	+
		- guide how to use Examples	-
		- guide on subentries	+
		- guide on use of cross-reference	-
Abbreviations /symbols	+		

**Table 16:** Evaluating the front-matter of 'LISAN'

*Key: ± ... not full or incomplete +<sup>b</sup>...included in the back cover page*

As illustrated above in its introduction part LISAN consists of one page lists of abbreviations, acknowledgment, and users' guide that explain how entries are arranged and defined. It is intended as a general purpose dictionary. Its user's guide also tried to show how synonyms and homonyms are treated in the dictionary. However like NAS'LA, MTD and MIRAS, it doesn't contain back matter. Thus, the following table summarizes the evaluation its front matter.

## VI. SABA

SABA is the first and the only English-Tigrinya-Amharic trilingual dictionary. It was compiled by Rahel Yshitla<sup>32</sup> in 1996 E.C. Its front matter consists of only three pages; one page lists of abbreviation, one page users' guide (pronouncing Tigrinya and Amharic sounds) and one page devoted to dedication and acknowledgments. The intended users of

<sup>32</sup> The outer is not native speaker of Tigrinya; hence she used informants (helped by native Tigrinya Teachers) for the Tigrinya section.

the dictionary are not specified, but as it is stated in its back cover page, it was compiled for general purpose.

This dictionary does not contain the most important categories of the front matter like, English pronunciation guide, the arrangement of homonyms, etc. It does not contain any back matter information either. Besides, the Amharic parts of speech appeared as abbreviated form in the dictionary proper (middle matter) are not stated in the front matter of the dictionary (they only appear in their full form). Hence, this can create confusion to the intended users. Mainly abbreviations, like (መጠ.ተው.ግስ p 460) etc are not stated in the front matter of the dictionary.

I. Front-Matter		SABA	
1	Front cover	-hard cover	-
		-Plastic/ laminated	-
2	Title pate	-Title of the dictionary	+
		-compiler's name	+
		- publisher's name	+
		- years of publishing	+
3	Dedication	(optional)	(+)
4	Table of contents		-
5	prologue or foreword	(optional)	(-)
6	preface		-
7	Introduction		-
8	Users' guide	- Alphabetical order	-
		- structure of the head word	-
		-Pronunciation/gemination guide	±
		- guide on grammatical information	+
		- gloss (translation equivalent)	+
		- Sense number system	-
		- guide how to use Examples	-
		- guide on subentries	-
		- guide on use of cross-reference	-
- Abbreviations /symbols	±		

**Table 17:** Evaluating the front-matter of 'SABA'

The evaluation showed that most of these dictionaries include some basic categories of the front matter. However, the result obtained from these dictionaries indicates that all lack/fail to cover the basic categories of the back-matter. In the following table the researcher tried to make a brief summery concerning the assessment of front and back matter of each dictionary.

I. Front-Matter		LISANE-AGZAI	MTD	NAS'LA	MIRAS	LISAN	SABA	
1	Front cover	-hard cover	-	-	-	-	-	
		-Plastic/ laminated	-	-	-	-	-	
2	Title page	-Title of the dictionary	+	+	+	+	+	
		-compiler's name	+	+	+	+	+	
		- publisher's name	+	+	+	-	+	+
		- years of publishing	+	+	+	+	+	+
3	Dedication	(optional)	(-)	(-)	(-)	(-)	(+)	
4	Table of contents		+	-	-	-	-	
5	prologue or foreword	(optional)	(+ <sup>b</sup> )	(-)	(+ <sup>b</sup> )	(+ <sup>b</sup> )	(-)	
6	preface		+	+	-	-	-	
7	Introduction		+	+	+	+	-	
8	Users' guide	- Alphabetical order	+	+	+	±	±	-
		- structure of the head word	+	+	+	±	-	-
		-Pronunciation/gemination guide	+	+	±	-	-	±
		- Part of speech (guide on grammatical information)	-	+	-	±	+	+
		- gloss (translation equivalent)	*	*	*	-	+	+
		- Sense number system	-	+	+	+	+	-
		- guide how to use Examples	+	+	+	±	-	-
		- guide about Etymology	+	-	-	*	*	*
		- guide on subentries	-	+	+	+ <sup>i</sup>	+	-
		- guide on use of cross-reference	-	+ <sup>r</sup>	-	-	-	-
- Abbreviations /symbols	+	+	-	+	+	±		
II Back Matter		i.. Grammatical sketch	-	-	±	-	-	
		ii. word classes	-	-	-	+ <sup>i</sup>	-	-
		iii. inflectional system	-	-	-	+ <sup>i</sup>	-	-
		iv. Derivational/compounding	-	+ <sup>i</sup>	-	+ <sup>i</sup>	-	-
		v. Appendices						
		- Lists of affixes	-	-	-	-	-	-
		- Numbers	+	-	-	-	-	-
		- Weights and Measures	-	-	-	-	-	-
		- Names of months	-	-	-	-	-	-
		- days of the week	-	-	-	-	-	-
		- Kinship terms	-	-	-	-	-	-

**Table 18:** Summary: Evaluating the front and Back-matter of the selected Tigrinya dictionaries

<b>key:</b>	+ <sup>b</sup> ...included in the back cover page	+ <sup>i</sup> ...included in the introduction
	+ ... existing / available	+ <sup>r</sup> ... available but not properly used
	-...Not available	( ) ...optional
	*...Not necessary	± ... not full or incomplete

As summarized in the table above, except LISANE- AGZAI, which includes Ethiopic number system, and attached appreciation letters, all the above dictionaries do not include any category of the back-matter. With regard to the front-matter, most of the dictionaries include important categories like the users guide, information about the head word, gemination, etc. But even here some of the dictionaries like SABA and LISAN missed

important categories of the front-matter. Besides, LISANE- AGZAI and NAS'LA did not include important information like grammatical information, etc.

### **3.1.2 EVALUATING THE LAYOUT (MACRO-STRUCTURE) OF TIGRINYA DICTIONARIES**

As pointed out earlier in section (2.2.3.3), the concern of the macro-structure is on the arrangement of dictionary entries. In terms of their macro-structure, dictionaries can be evaluated in terms of the arrangement of entries. The layout of a dictionary could be either flat, nest or tiered layout. The organization of the headword list is usually alphabetical (Word-by-word or letter-by letter). Hence, using the alphabetical order and the header in a dictionary is a necessary skill which ought to be well thought of. The dictionary compiler must have the knowledge of arranging and categorizing skills. For instance, s/he must be consistent in representing homonyms, main entries and subentries, etc. Besides, the dictionary style guide should encompass information about the methods used in the dictionary proper (Sevensén, 1993:12, Atkins and Rundell, 2008:191).

There are various ways of arranging the headwords or entries in a dictionary (letter by letter or word by word). Moreover, there are two basic criteria for dividing the information in the entry (a) in terms of 'sense' and (b) parts of speech.

#### **3.1.2.1. Organization of the headword list in Tigrinya dictionaries**

In the next section, an attempt is made to evaluate the selected Tigrinya dictionaries in terms of the criteria of microstructure.

##### **I. LISANÄ-AGAZI**

This dictionary is laid out in two columns per page. An average page holds about 22 to 24 main entries. This is followed by short definition and then by selected examples. All the headwords are alphabetically arranged. The layout of each entry is written in bold. The precise definition, examples and some selected pictorial illustrations make the dictionary relatively a rich source of information.

However, although the entries are clearly laid-out, all subentries and derivatives are written as independent entry. Moreover, the author did not follow the principle of 3<sup>rd</sup> person, singular masculine past tense (Geez) form when the verbs are selected as main entry.

example	gloss	correct form of the entry
<b>ሀሚሙ</b> (ሙሙ) /həmiimu/	sink down	<b>ሃሙሙ</b> /haməmə/
<b>ሀረሙ</b> (ረሙ) /həriimu/	hit/bit	<b>ሃረሙ</b> /harəmə/
<b>ሐብሐብ</b> /həbihibu/	keep properly/cared	<b>ሐብሐብ</b> /həbihibə/
<b>ሐቴቴ</b> /hətitu/	ask(ed)	<b>ሐተተ</b> /hətətə/
<b>ሐቢጡ</b> /həbit'u	swollen	<b>ሐበጠ</b> /həbət'ə/

As shown in the above examples, although the author provides part of the correct form of the verb in brackets, he did not follow the standard way of displaying verbs in the dictionary. As he pointed out in the introduction part of the dictionary, he had intentionally followed the above incorrect strategy for purposes of easy use. But the alternation of the first order with the fourth order makes the entries difficult to understand. The words like 'ሀሚሙ', 'ሀረሙ', 'ሐቴቴ', are not acceptable words in the language. To be acceptable the first order must be written as 'ሃ', 'ሐ', and so on as stated in the table above.

## II. MTD

This dictionary is laid out in single column per page. An average page holds about 6-8 head entries with sub-entries increasing this further. Some entries include much information and others remain very short usually with cross-reference, without any definition. And even many other entries have ambiguous/circular definitions.

Pertaining to the layout of the dictionary, the head words are written in bold and alphabetically arranged verbs are also displayed in their basic/stem form (in 3<sup>rd</sup> person, masculine, singular, past tense form). Homonymous words are treated as independent

entry. Moreover, endocentric compound words, whose meaning is related to one part of the component, are written under the head word. However, exocentric compounds, whose meaning are not related to one of their components, are not laid out as independent entry. Hence, although this dictionary informs its reader, as if exocentric compounds were treated as main entry (P. xi) this strategy was not employed in the dictionary proper.

**Examples:**

- 
1. **ፀወየ/ኣ/** ..... **ፀወዩ/ቅ/** ..... **ፅዋ/ስ/....** (p.921)  
 /s'əwəjə/      /s'əwəjə/      /s'twa/  
 '(he) told'      'orator'      'speech'
2. **ዓይኒ /ስ/ ... መርዓት ዓይኒ /ስ/ ... ዓይኒ ምድርይ/ስ/...**(p.712)  
 ስajni/      /məɾʰt ስajni/      / ስajni midri /  
 'eye'      'eye lense'      'toilet'
3. i **መለሰ<sup>1</sup> /ኣ/** /mələsə/ 'gave back/returned borrowed money' ... (p.114-115)  
 ii. **መለሰ<sup>2</sup> /ኣ/** /mələsə/ 'plug /return back'  
 i. **መለሰ<sup>1</sup> /ኣ/** /məlləsə/ 'chencghed or reterved back what he has bought'  
 ii. **መለሰ<sup>2</sup> /ኣ/** /məlləsə/ 'answered or 'responded' (question),  
 iii. **መለሰ<sup>3</sup>/ኣ/** /məlləsə/ 'fill up a liquid/ grain in to some material'

As stated in the above examples, this dictionary employed the sense-number homonymy layout as in example 3 above. It did not display exocentric compounds as main entry as in example 2 above. In general the layout of this dictionary is not well organized, several head words contain very short and ambiguous definitions and others contain larger paragraphs.

**III. NAS'LA**

In this dictionary the entries are arranged alphabetically in a single column. Verbs appear as 3<sup>rd</sup> person masculine singular past tense form, which is the basic form of Semitic language-dictionaries.

The author avoids over representation of letters. Hence, the unnecessary repetitive characters such as '፳'/s', 'ኃ'/h/, and 'ሠ'/s/ are not used in the dictionary. Instead, the

author preferred in using the simplest letters like/ ‘θ’ /s’/, ‘B’ /h/, and ‘ŋ’ /s/. Therefore, this dictionary is the first in its exclusion of repetitive symbols of the language.

The basic entries are selected as head word and the sub-entries like derivatives, compounds, and so forth are written under the main entry.

Example (p.257)		<u>gloss</u>
<b>main entry</b> →	<b>ፈተወ</b> /fətəwə/	‘(he) loved’
sub-entrie	{ መፍቶቲ/məftotu/	‘(his) favourite, desired’
	{ ተፈታወጋ /təfətawaj/	‘beloved one’
	{ ፈታወ ርእሱ/fətaw+ riʕsu/	‘selfish /self-centered’

As stated in the above example, this dictionary followed the tiered layout arrangement. The subentries are written under the main entry. The head words are written in bold.

**IV. MIRAS**

The dictionary is laid out in one column per page. An average page holds about 9–12 head entries with subentries increasing this number further. Headwords are arranged alphabetically and sub-entries are written under the main entry. Akin to NAS’LA (1987) and MTD (1989), compounds and derivatives are laid out alphabetically under the lemma as in the examples below.

Although the Tigrinya words are clearly laid out, their English gloss remains condensed, this might mislead non-careful users.

	Examples	gloss
Head word →	እኛ (ሰ) /inno/	'mother' ..... (p. 194)
Compounds →	እኛ እኅ /inno hiḡo/ ሓፍቲ፡እኛ(ሰ) /haftiːinno/'aunt'	'grand mother'
Head word →	ግፀፈ. (ግ) /ɣas'əfə/	'folded', 'doubled' ..(p. 248)
derivatives →	ዕግፍ (ቅ) /ɣis'af/ ዕፀፈ. (ሰ) /ɣis'fi/ ተግፀፈ. (ግ) /təɣas'əfə/	'folded' 'crease' 'double, fold' 'was folded, was doubled'
Compounds →	ተግግፈ. ወንበር (ሰ) /təɣasːafi wənbər /	'folding chair'
Idioms →	ቃሉ-ግፀፈ. (ብሂ) /k'alu ɣas'əfə/	'broke one's promise'
Headword →	ዘመተ(ግ) /zəmətə/	1. went on a military mission ... (p. 252)
	Number sense →	2. made a raid 3. went on expedition 4. campaigned

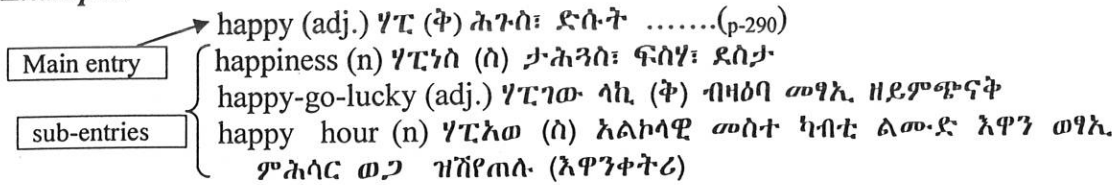
As shown in the above table sub-entries which encompass compounds, derivatives, idioms and different meanings of a single word are written below the head word. As to the principle of economy is concerned; this kind of arrangement consumes more space. But it is assumed to be easy for users to identify the main entry from its derivatives. In general, as far as the macro-structure is concerned, the author used the tiered layout.

Although it contains multiple subentries which increase the number further, this dictionary contains around 3509-4000 main entries. As a general purpose dictionary, it would have better if it encompasses many entries as much as possible or limit its purpose for elementary or high school students.

## V. LISAN

This dictionary consists of about 55,000 distinct lexical entries presented on 773 pages of the dictionary proper. It is laid out in two columns per page. An average page consists of about 8 to 12 head words with subentries increasing this number further. The short gloss and some selected pictorial illustration make the dictionary relatively a rich source of information than the other bi-/trilingual dictionaries like MTRAS and SABA. The author uses a flat layout, which is considered as not easy to identify the main entry from its derivatives. The subentries are written as a headword as in the following examples.

*Example:*



As stated above the derived entries are laid out as main entries following the principle of the *flat layout*. According to Atkins and Rundell (2008), the flat layout is not easy for users to identify the main entry from its derivations.

In general, in terms of the principle of macrostructure, the main entry should be easily identifiable. However in this dictionary head entries are not indicated in boldface, rather they are written as similar font as the definition and pronunciation guide. The dictionary includes pronunciation guide written in Ethiopic script for the English head words. But this makes problematic for the layout of the dictionary because it is not written in bracket or some special symbols.

**VI. SABA**

SABA, trilingual English-Tigrinya- Amharic dictionary, consists of about 30,000 main entries with Tigrinya and English translation equivalents. The entries are presented on 773 pages of the middle matter (main body) of the dictionary. It is laid out in one column per page. An average page holds about 17 to 19 head entries with sub-entries which may increase the number further.

The English head entries are not written in bold, and even their pronunciations are written in Ethiopic Script below each English main entry. All the head words look very condensed. Hence, it seems difficult for the user to identify the head word from the gloss. On the contrary, their Tigrinya and Amharic translation equivalents are clearly laid out with one spacing gap as in the following examples.

**EXAMPLE: English**

1. abound (adj)  
አባውንድ (ቅ)
2. cook (Vt)  
ኩክ (የላላ ግስ)
3. border (n)  
ቦርደር (ስም)

**Tigrinya**

- መሊኡሞላ፣  
አብሲሊ  
ወሰን፣ ደምበር

**Amharic**

- ተትረፊረፊ  
አብሲል  
ጠረፍ፣ ወሰን

To conclude, the following table presented a summary on the layout of the selected dictionaries.

Main categories of the Macro-structure (layout)		Tigrinya Dictionaries					
		Monolingual			Bilingual		Trilingual
		LISANEAGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA
1	<b>Alphabetical</b>						
	word by word	-	-	-	-	-	-
	letter by letter	+	+	+	+	+	+
2	<b>Dictionary layout</b>						
	2.1 Flat layout	+				+	+
	2.2 tiered layout		+	+	+		
	2.3 nested	(-)	(-)	(-)	(-)	(-)	(-)
3	<b>Homonymic layout</b>						
	3.1. on the bases of grammar or	-	-			+	+
	3.2. on the bases of etymology	-	-		+		
4	<b>Polysemous layout</b>						
	4.1. according to sense number	-	+	+	+	+	
	4.2. According to parts of speech	-					+
5	verbs 3 <sup>rd</sup> pmsg past	-	+	+	+	+	±

**Table 19:** Summary on evaluating the layout of Tigrinya Dictionaries

Key: +.....available (presence of categories) - ... Not available (absence of category)  
( )... optional (currently not in use) ± .... Not fully available

As shown in the table above, most of selected dictionaries encompass relevant categories of the micro-structure. But some dictionaries like LISANS-AGAZI lack almost all characteristics of a standard dictionary layout.

### 3.1.3. Evaluating the Microstructure of Tigrinya Dictionaries

As pointed out earlier, the microstructure also known as the middle matter or dictionary proper is the core part of any dictionary. It encompasses most basic aspects of a dictionary, such as the head word, pronunciation, parts of speech, definition, examples and pictorial illustrations, etc. While the micro-structure of a monolingual dictionary includes etymological and dialectal variants, bilingual and trilingual dictionaries include translation equivalents/glosses.

In order to make an objective evaluation on the selected dictionaries and to increase the readability of this chapter, each section begins with a summary of selected criteria as in the following.

#### 3.1.3 1. The Head Word /Entry Term

Special care is needed in the selection and lamenting a word as a main entry. The dictionary compiler or lexicographer should choose the basic free form of the word. The headword must be natural form, simple /short form, frequent, productive form, etc.

##### I. The Main Entry in LISANE-AGAZI, NAS'LA, MTD and MIRAS

In Tigrinya, verbs are considered as basic/stem when they appeared as 3<sup>rd</sup> person singular masculine past tense [3msp] form. Dictionary compilers should select this kind of verbs as a main entry in their dictionary. However, some of the dictionaries under investigation did not follow this strategy.

##### Example

	LISANE AGAZI	NAS'LA	MTD	MIRAS	GLOSS
1	በለፀ / bəliṣu /	በለፀ / bəl ʕə /	በለፀ / bəlʕə/	በለፀ / bəlʕə/	(he) ate
2	ሰተዩ / sətju/	ሰተዩ /sətəjə/	ሰተዩ /sətəjə/	ሰተዩ /sətəjə/	(he) drunk
3	ተኸደኑ / təkədinu /	ተኸደኑ /təkədənə /	ተኸደኑ / təkədənə	ተኸደኑ / təkədəinə/	(he) be dressed in or wear
4	አተወ /ʔatiwu /	አተወ /ʔatəwə/	አተወ /ʔatəwə/	አተወ /ʔatəwə/	(he) entered
5	አወጀ /ʔawəɖzu/	አወጀ /ʔawəɖzə /	አወጀ /ʔawəɖzə/	አወጀ /ʔawəɖzə/	(he) declared

Table 20: The Main Entry in LISANE-AGAZI, NAS'LA, MTD and MIRAS

As stated in the above examples, in LISANE-AGAZI, the verbs do not appear as 3rd person masculine past tense form (Ge'ez). However, in NAS'LA, MTD the verbs display 3msp form.

## II. The Main Entry in SABA and LISAN

As already stated, SABA provides translation equivalent for the English headwords form Tigrinya and Amharic. The gloss for nouns, adjectives and other parts of speech apart from verbs are fairly translated. However, it is difficult to provide equivalents for verbs. Hence this dictionary does not present the exact tense of the verbs in the three languages.

### Example – from SABA

	English	Tigrinya	Amharic
1	eat (v)	በሊፀ (he) 'ate'	በላ (he) 'ate'
2	enlarge (vt)	አዕብዩ (he) 'enlarged'	አሳደገ (he) 'enlarged'

Table 21: The Main Entry in SABA and LISAN

As stated in the above table, the verbs in Tigrinya should 'በሊፀ' and 'አዕብዩ' in be equivalent with the entries. Likewise, in LISAN the English headwords are not equivalent with the Tigrinya verbs.

### Example- from LISAN

	English	Tigrinya	Tigrinya translation
1	eat (v.t)	ኢት (ተ.ግ) በልጻ ተመገበ	'ate'
2	drink (v.t)	ድሪንክ (ተ.ግ) ሰተየ	'drunk'
3	break (v.t)	ብሬክ (ግ) ሰበረ	'broken'
4	wear (v)	ዊ (ግ) ተኸደነ	'wearied'
5	declare (v.)	ዲክለ (ግ) አወጀ፣ ሐገገ	'declared'

The English verbs in the table above appeared in present tense form. However, their Tigrinya transaction equivalents are written in their past tense form. Hence, there is disparity in tense between the source and the target language.

Moreover, in SABA, the Tigrinya and Amharic glosses are not identical. While in Amharic, the verbs are written in their 3<sup>rd</sup> person masculine past tense form, their

Tigrinya equivalents did not follow this principle. Thus the author was not consistent in defining verbs in the three languages stated above.

### 3.1.3 2. Pronunciation/gemination

Dictionaries must include pronunciation guide if the writing system of a language is not fully phonemic. A few simple rules in the introduction are needed if they are sufficient to arrive at the correct pronunciation. However, if simple rules are not enough and if it is unpredictable, pronunciation guide is necessary to be included in a dictionary.

In Tigrinya, gemination or doubling of consonants involves the combination of identical consonant clusters uninterrupted by any vowel within a word. It occurs at word medial position and it is an essential phonemic feature in the language. However, although gemination is a frequent phonemic property (suprasegmental) in the language there is no way of marking or indicating in the orthography. This may be less difficult for native speakers than for non-native speakers and beginners who have to learn in every context.

#### Example

Non-Geminated	Geminated
1. /k'ərəbə/ "he came closer".	/k'ərrəbə/ 'he brought forth'/ 'presented'
2. /habo/ 'he gave him'	/habbo / 'you (masculine singular) give him.
3. /zəwari / 'wanderer'	/zewwari/ 'driver' etc.

What should lexicographers do in order to deal with gemination in their dictionary? Since lexicographers are concerned with words they have to indicate gemination with some special symbol consistently. Otherwise, linguists should design a special orthography typical for consonant cluster.

Based on the principle stated above, let us examine how pronunciation or gemination was treated in the dictionaries under study.

## I. GEMINATION IN LISANE-AGAZI, NAS'LA, MTD AND MIRAS

There is no consistency in the treatment of gemination among the dictionaries. For instance, majority of the dictionaries use a special symbol to treat the problem, and others

like MIRAS do not show gemination at all. The following table summarizes the treatment of gemination in four of the selected dictionaries.

Dictionaries	gemination identified	Symbol	Examples	
			geminated	Non gemination
1 LISANE-AGZAI	+	˘	ለማግ /l /l əmmas'i / ምልጋስ 'became honest' / mɪllɨgas/	ለማግ 'can became smooth' / ləmas'i / ምልጋስ 'leave 'to left'' /mɪllɨgas/
2 MTD	+	˙˙	ዘወረ /zəwwarə / 'driver'	ዘወረ /zewarə/ 'wanderer'
3 NAS'LA	-	‘ ?	መሰለ Spoke with /mæssələ/ parables	መሰለ seem/look like /mæssələ/
4 MIRAS	-	No	-	-

**Table 22:** Summaries on treatment of gemination in the four selected dictionaries

As shown in the above table, each dictionary compiler used different symbols to show gemination. For example, in LISANE-AGZAI it is indicated by (˘) called /diɸʔat/ from Ge'ez used for falling and stressed pitch. Girmatsion used his knowledge of Ge'ez to tackle the problem as stated above. He is the first indigenous dictionary compiler who treated gemination in his dictionary.

The authors of MTD also used /˙˙/ two dots written above the geminated sound as in the table (number 2) above. In NAS'LA, the author informed he used a special symbol / ‘ / in front of the geminated sound, but he does not use it consistently in his dictionary. On the other hand MIRAS does not provide a symbol for gemination. In the introduction part, the author said:

“I did not differentiate (distinguish) the geminated and the non-geminated words which bring meaning difference in Tigrinya. Hence, I recommend readers (users) should use the context in which the source word is used, with great excuse!”

“ጠቢቆምን ላሕሊሐምን አፈላላይ ትርጉም ንዘምፅኡ ቃላት ትግርኛ መፍለይ አይገባርኩን እኛ መንበሊ ንዘይልዩም ትርጉም ቃላት እንግሊዝኛ ፍልፍል ቃል ብዘአተዎ ዓውዲ (context) ንኸፈትሐም ምስገዚፍ ይቐሬታ አዛኻኸር” (ገፅ. ፫)

As stated above, the author tried to inform his dictionary users to use context. However, it is difficult if not impossible to use context in a dictionary without examples. After all, the users consult dictionary mainly for clear definition, pronunciation, grammatical information, etc. however no clear and short examples which include the head word is included. Thus it is difficult to expect users to distinguish the geminated word form the non-geminated in a dictionary without examples in context. This dictionary does not contain examples which include the main entry in context.

As discussed above, there is no common agreement in representing gemination in the language. Dictionary compilers have used different symbols. This is difficult for users to know various symbols for the same concept. Especially non-native learners and beginners (children) can not easily understand same symbol for a different concept. Therefore, linguists and lexicographers should cooperate to device one symbol and need to be used consistently in different dictionaries.

### III. LISAN and SABA

These dictionaries provide pronunciation for the English head words, using the Ethiopic script. However, there are some noticeable weaknesses as pointed out in the following table.

No	Main Entry English	Pronunciation		
		LISAN	SABA	* Macmillan (2002)
1	abandon (v)	አባንደን (ግ) (p-1)	አባንደን (ግስ) (p-1)	/əbændən/
2	abashed (adj.)	አባሸድ (ቅ) (p-1)	አቡይሽ (ቅ) (p-1)	/ə' bæʃt/
3	about (adv)	አባውት (ተውግ) (p-2)	አባውት (ተውግስ) (p-2)	/əbaut/
4	above	አባሻ (ቅ) (p-2)	አባሻ ( ) (p-370)	/'əbʌv/
5	pronunciation	ኘሮንንሲያይሽን (ስ) (p-527)	ኘረንንሲያይሽን (ስም) (p-252)	/prənˈnsi:ɪʃn/
6	thing (n)	ሲንግ (ስ) (p-701)	ቲንግ (ስም) (p-369)	/θɪŋ/
7	that (pro)	ዛት (ክስ) (p-699)	ዛት (ክስ) (p-366)	/ðæt/
8	thus (adv)	ዘስ (ተውግ) (p-704)	ዘስ (ተውግ) (p-375)	/ðʌs/
9	Thursday (n)	ሰዝዴ (ስ) (p-704)	ተርሰዴይ (ስም) (p-375)	/θɜ:zdeɪ/
10	thought (n)	ሶት (ስ) (p-701)	ቶውት (ስም) (p-371)	/θɔ: t/
11	think	ቲንክ (p-701)	ቲንክ (p-370)	/θɪŋk/

\* just for comparison

Table 23: Treatment of pronunciation in LISAN and SABA

As shown in the above table both dictionaries are not good sources (references) for English pronunciation. In LISAN, the vowel /ə/ is replaced by /a/. Moreover, in both dictionaries the English inter-dental sounds /θ / and / ð / are represented by / t / /s/. Even there is inconsistency in using the English dental sounds as show in example (6, 9 and 10) above. The velar nasal /ŋ/ as represented by the alveolar /n/.

Therefore, this is a serious problem that needs critical correction. Linguists and lexicographers should cooperate to design a special symbol or alphabet for the inter-dental sounds of English or else should adopt the IPA.

Furthermore, SABA used all the redundant characters for the English pronunciation and in the Amharic gloss. It also used /ʸ/ which is pronounced as /x/ in Tigrinya and as /h/ in Amharic. This can create confusion for Tigrinya users.

**Example**

No	English	Tigrinya speaker	Amharic speaker
1	heart (vt) ኸርት (ተሻ.ግስ)	/xərt/	/hərt/
2	hurry (n) ኸሪ (ስጦ)	/xəri/	/həri/
3	humble (adj.) ኸምብል (ቅ)	/xəmbil/	/xəmbil/
4	hut (n) ኸት (ስጦ)	/xət/	/hət/

There are several English headwords transcribed like in the above examples. However, in Tigrinya /ʸ/ is generally pronounced as /x/. Hence, this can be useless and even hinder to learn the exact English pronunciation. Mainly, beginners and primary school children can use or master the incorrect pronunciation as in the above examples. Besides, this dictionary mystify the first and the forth order in the pronunciation and some entries are transcribed by redundant letters which are not currently in use in Tigrinya.

**Example**

- |                                |                                     |                        |
|--------------------------------|-------------------------------------|------------------------|
| 1. high (adj.) /haɪ/<br>ሀይ (ቅ) | 3. afraid (adj.) /ə'feɪd/<br>አፍራይድ  | 5. sand /sænd /<br>ሣንድ |
| 2. half (n) /ha:f/<br>ሀፍ       | 4. sanctity (n) /sæŋktəti/<br>ሣንክቲቲ |                        |

As the above examples show, ‘ሀ’ and ‘አ’ are pronounced in Tigrinya like /hə/ and /ʔə/, but in Amharic they can be pronounced as /ha/ and /ʔa/, respectively. This dictionary also included /ሥ/, /ኅ/ /ጸ/ but such letters are not currently in use in Tigrinya. This shows that the dictionary compilers should consult linguists and lexicographers in order to improve the quality of their dictionaries. Besides, the above differences should be explained in the front matter of their dictionary.

### 3.1.3.4. Orthography/ Spelling in Tigrinya Dictionaries

The Tigrinya writing system is basically similar to Ge’ez and Amharic commonly, known as the ‘Ethiopic writing system’. The writing system was problematic for lexicographers as there is no a one-to-one correspondence between the graphic symbols and sounds. In other words, some sounds are represented by more than one symbol which causes difficulty for dictionary compilers and learners.

Currently, however, the redundant sounds are already solved by selecting one. For example /ሀ/ /ሐ/ //ሰ/ are currently in use than their alternates /ኅ/ / /ጸ/ /ሥ/, respectively. Such redundant letters are already reduced. Nevertheless, the writing system does not yet possess a special character for geminated consonants.

Let us assess the standards of the selected dictionaries in terms of spelling/ orthography.

#### I. LISANĒ-AGAZI

Pertaining to orthography/spelling, LISANE-AGAI lacks consistency and suffers from many spelling errors and multiple redundant letters to preserve the archaic letters. Perhaps this results due to the fact that it is the oldest Tigrinya monolingual dictionary. It includes all the redundant letters like /ጸ/ /ሐ/, /ሥ/ /ሰ/ and /ሀ/ /ኃ/.

There are also some characters like ‘ኃ’/h/ used instead of ‘ሐ’/h/ as stated in the following examples.

	LISANE AGAZI	Currently used as	Gloss
1	ኃለፋ /haləfa/	ኣለፋ /halfa/	extra more
2	ኃሊፋ /halifu/	ኣሊፋ /halifu/	(he)went
3	ኃርዮ /harju/	ኣርዮ /harju/	(he) selected
4	ኃላፍነት /halafnət/	ኣላፍነት /halafnət/	responsibility
5	ኃሙስ /hamus/	ኣሙስ /hamus/	Thursday

There are about 64 head entries written like the examples above. Perhaps the author's intention was to preserve the archaic form letter /ኃ/. However, this is no more in use and such words can create confusion not only for non-native learners and children but also for advanced learners. Moreover, there is a confusion between the first order and the fourth order symbols.

### Example

LISANE AGAZI	Correct Form	Gloss
1. ሀረሙ /hərəmu/	ሃረሙ /harimə/	'bit', 'hit'
2. አመልክቱ /ʔəməlkitu/	አመልከተ /ʔaməlkətə/	'indicated/show
3. ኣቢጡ /həbit'u/	ኣቢጡ /habit'u/	'swollen'

As affirmed from these examples, the dictionary lacks spelling/orthographic guide. In general, on the bases of the criteria of spelling and orthography, this dictionary needs a critical revision by reducing the redundant letters predominantly for current pedagogical use.

## II. NAS'LA

On the bases of spelling and orthography, this dictionary is found to be better than LISANE-AGAI and MTD. It avoided the redundant letters like 'ኃ', 'ሥ', 'ጸ' by taking the simple character /ሀ/, /ሰ/ and /ፅ/, respectively. Thus, it is the earliest dictionary with reduced alphabets of the language.

Sometimes, the first and second order, and the six and seven order are either exchanged. For instance, 'ሰ'/'ሰ', 'ወ'/'ወ and ዩ'/'ዩ were used interchangeably and the author informed this shortcoming for the user at the end of his dictionary.

### III. MTD

This dictionary provides a list of the reduced letters by avoiding the redundant characters in the language. However, it seems nothing was done on phonetic/ allophonic variants. The various accents /pronunciation variants were incorporated in the dictionary as in the following examples.

#### Examples

No	phonemic	phonetic	gloss
	Main entry	Definition	
1	ገንቦ /gənbo/	ገምቦ [gəmbo]	pot
2	ዓንበበ /ʎanbəbə/	ዓምበበ [ʎembəbə]	flowered (get flower)
3	ኩዕሶ /kuʎtso/	ኩዕሶ [k <sup>w</sup> uʎtso]	ball
4	ገንበር /gənbər/	ገምበር [gəmbər/]	forehead
5	መቸወ /məʎəwə/	ወሽወ / məʎəwə/ /	became comfortable
6	አንበሳ /ʎanbəsə/	አምበሳ [ʎambəsə]	lion

As one can clearly glance from these examples, no attempt is made to avoid phonetic variants. For instance in example ‘1’, ‘2’, ‘4’ there is homorganic nasal assimilation. The alveolar /n/ is changed into bilabial nasal /m/ before the bilabial sounds [n] → [m] /b/ and in example ‘3’, [k] → [k<sup>w</sup>] when it appear before back vowels. In other words, there is labialization process; the phoneme /k/ is labialized before back vowels. All this variations only appear in speech and it is unattainable and impractical to include such variant in a dictionary. The dictionary is full of such kinds of definitions and lacks the methods and principles of lexicography. It seems less attention was given in distinguishing basic words from their phonetic variants. The compilers lack basic knowledge of lexicography and phonetics / phonology.

### IV. MIRAS

This dictionary used the reduced alphabets of Tigrinya. It avoids the redundant alternates, following the MTD principle as a model. However, like the above dictionaries, there are some noticeable gaps in spelling.

Example	Should be corrected as:
1. <u>ሆራ</u> (ሰ) (p.9) A type of dance peculiar to eastern Tigray and some parts of Eritrea.	<u>ሆራ</u> → ሁራ
2. <u>ዘመተ</u> (ግስ) <u>want</u> on a military mission	<u>want</u> → <u>went</u>
3. <u>ታቦተ ዕዩን</u> (ሰ) <u>Art</u> of covenant	<u>Art</u> → <u>ark</u> of the covenant
4. <u>መቀስ</u> (ግስ) cut hairs with scissors	<u>መቀስ</u> → መቅስ

As it can be noticed from the above examples, the dictionary has some spelling errors, which need abrupt or critical correction.

## V. LISAN and SABAB

As already discussed in the previous section, these dictionaries have some noticeable gaps in providing the accurate English pronunciation, vowel length, consonant germination, and so on. Moreover, sometimes SABA uses 'o' /ʌ/ instead of 'o' /s'/, /w/ which is not currently in use in Tigrinya and so forth.

### Example

English	Tigrinya	Amharic	Correction for the Tigrinya gloss
1. elect (v)	መረዐ	መረጠ	/o:/ → /θ:/
2. electrician	ሠራሕተኛ ኤሌክትሪክ	የኤሌክትሪክ ሰራተኛ	/w/ → /ʌ/
3. print	ሂተመ	አተመ	/ʃ/ → /dʌ/
4. Publish (v)	አሀተመ	አሳተመ	ʊ/ → /dʌ/

In general, although these dictionaries provide valuable techniques and methods of lexicography, great care is needed in spelling, pronunciation definition and the like.

### 3.1.3 5. Definition

Definition is the backbone of a dictionary. All lexicographers like Atkins and Rundell (2008), Landau (2001), Hartmann (2003), Lew (2004), and so on, give much emphasis on definition, because users' usually consult their dictionary for clear definition. Therefore, dictionary compilers must give great care, time and energy in defining the head word with precise examples or illustrations. Before directly going to the evaluation of the

selected dictionaries on the bases of definition, it seems crucial to have a list of criteria as summarized in the following table.

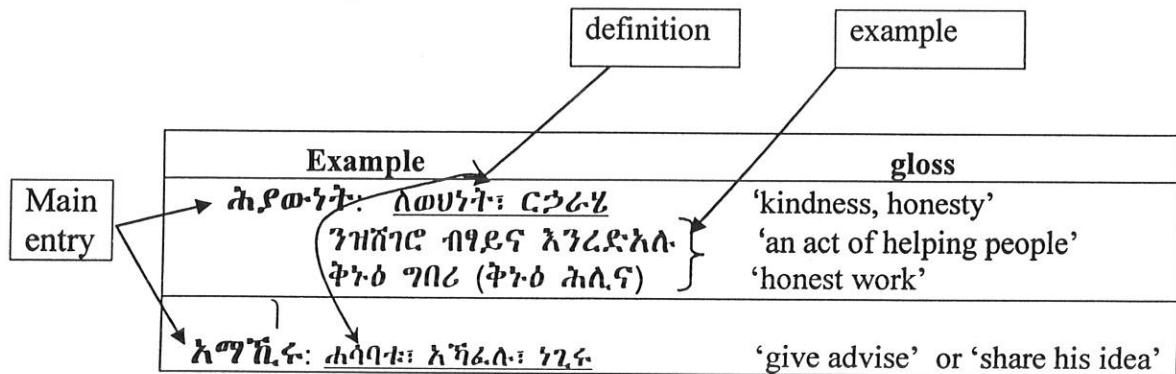
- **Avoid circularity:** circular definition made things difficult or impossible to understand. “Mind you, circularity does not just make things difficult-it makes them impossible” (Landau, 2001:157)
- **Be brief (Brevity):** focus on meaning and tell users what the head word mean. Never use a passive where active is possible (Atkins and Rundell, 2008:452)
- **Simplicity:** Use simpler words than the word being defined; Do not use complex words to define simple words. (Landau, 2001:166)
- **start with the basic definition:** give the correct generic term and accurate details – begin with the basic definition and present examples as necessary (Atkins and Rundell, 2008:452)
- **Economy:** attempt for maximum economy; don’t try to include everything. “ A good definition is one that meets its user’s needs without providing more information than is necessary” (Atkins and Rundell, 2008: )
- **Intelligibility/ user-friendly:** know your users and use common frequent words appropriate to intended users’ skill and level. “The user should not have to consult another definition to understand the entry” (Atkins, 2008:412).
- **Special care is needed to define sensitive words:**
  - Be neutral, avoid embarrassment and stereotyping definitions when defining words referring to ethnicity or racial, religious, political beliefs, sexual orientation, age, gender, disability and taboo words. (Atkins and Rundell, 2008:425,428).
- **adequately informative:**
  - The meaning should be clear even without examples.
  - Give enough details to distinguish the sense of the headword from its other sense and from other similar words. (Ibid)
- **In defining technical terms and loan words:**  
Start by defining the basic term/main entry, and then sub-entries that include the entry word, provide example usage or add encyclopedic information as necessary. (Svénsen, 1993:134)
- **In defining grammatical words and interjections:** define by explaining their function. (Ibid)

**Table 24:** Basic principles of defining in monolingual dictionaries

Bearing the above basic principles of defining in mind, let us now move on to the evaluation of the selected dictionaries.

## I. LISANĀ-AGAZI

One of the strengths of this dictionary is its clear, short and specific definitions, followed by examples and illustrations. Besides, this dictionary includes pictures and encyclopedic information. The author first provides the core definition and then additional examples are provided.

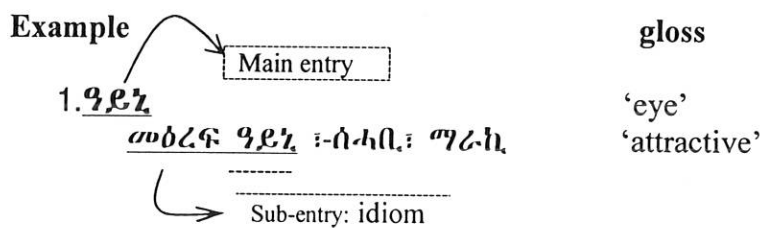


As stated in the above examples, the bold-face head words have brief and precise definitions. As far as the scope of meaning and usage is concerned, some definitions are enriched with examples and selected pictures. Culture-specific vocabulary items are given more elaborative explanations.

In general, in this dictionary, the basic definition appears first followed by illustrative examples, pictorial illustrations as necessary. Thus, in terms of definition this dictionary can be regarded as better than the other Tigrinya monolingual dictionaries published so far.

## II. NAS'LA

This dictionary does not provide the basic definition of the main entry. It was assumed as dictionary of idioms. It provides many idiomatic expressions that start in each main entry.



For the head word 'ዓይን' 'eye' about 74 different kinds of idioms have been given. Although the head word is not defined, this material (dictionary) remains as a rich source of Tigrinya idiomatic expressions. Primarily, a dictionary must provide basic definition of the main entry. However, as shown in the above example, NAS'LA does not define the head word.

### III. MTD

As pointed out earlier, definition is the most important part of the micro-structure (main body) of any dictionary. In MTD, some entries are fairly defined with illustrative examples. Nevertheless, it contained numerous ambiguous and circular definitions. Several main entries are defined by repeating the headwords with slight pronunciation differences. There are about 698 main entries with circular definition, and 1795 main entries with cross-reference 'ረእ' 'see to' without any definition.

#### Examples

No	Main entry	Definition	No	Main entry	Definition
1	ገንበር	ገምበር forehead	12	ህንካ /ክ/	እንካ hear is it/ you(2ms)take
2	ለካቲት/ከ/	የካቲት February	13	ጠረሽ/ክ/	ጨረሰ (he)finished
3	ፆረ /ክ/	ፀወረ Carry	14	ጉዕ /ከ/	ጉዕ Green pepper
4	ሃፍተመ /ክ/	ሃብተመ (he)became rich	15	ዒፍ /ከ/	ዑፍ bird
5	ሒሒት /ከ/	ሒሒት kind of plant	16	ዓለት /ከ/	ዐሊት ethnic group
6	ሃርዳፍ /ቅ/	ሃንዳፍ 'mean' 'selfish'	17	ዓንበሳ	ዓምበሳ lion
7	እማሆይ	እመሆይ 'nun'	18	ዓንበበ /ክ/	ዓምበበ rise flower 'give flower'
8	ጉንን	ጉዳ kind of bird	19	መቸው /ክ/	መሸው 'become comfortable'
9	ጠርነበ /ክ/	ጠርነፈ (he)collect	20	ዒጫ	ዕጫ 'lottery'
10	ጠርነፈ	ጠረፈ (he)collect/gather	21	መንድቅ	መንደቅ 'well'
11	ዓይላ /ከ/	ግይላ traditional music (party)	22	የሎን	የለን 'do not exist' 'absent'

As given in the above table, the dictionary remained as full circular definitions. No attempt is made to avoid minor dialect/ phonetic variants. For instance, all the head words are repeated as definition. Such kind of circular definition, made the headwords difficult to understand. Generally this dictionary lacks the methods and basic principle of defining stated earlier.

### 3.1.3. 6. Translation Equivalent in Bi-and Tri-Lingual Dictionaries

In bi- and tri-lingual dictionaries, the definition is usually referred as translation equivalent or gloss. These kinds of dictionaries are expected to provide short and clear glosses in two or more languages. The gloss could be one word-translation, phrase with or without comments.

Therefore, while monolingual dictionaries attempt to describe all senses of a particular word, bilingual/ trilingual dictionaries should choose what is relevant to the user, hence the sense can be compressed. Svénen (1993:140) confirms that: "The task of the bilingual dictionary is to provide words and expressions in the source language with counterparts in the target language which are as near as possible, semantically and as regards style level (register)."

However, it is not always easy to find equivalents between words and expressions of two or more languages. The number of concepts might not equivalent due to historical, socio-economic or geographical differences of the speech community in which different languages are spoken. In general, there are three kinds of equivalents known as, complete, partial and non-equivalents. '*Complete equivalent*'- appears where there is complete correspondence between expressions or words of two or more languages. '*Partial equivalent*'- exists where there is partial agreement between words and expressions of two or more languages. Finally, '*nonequivalent*'- occurs where there is no partial or complete equivalent between words of languages. This usually occurs in culture specific terms or concepts. Hence lexicographers should define such culture specific concepts by examples including encyclopedic information or pictorial illustration (Svénen (1993:143-148).

In the following sections, an attempt is made to assess how the selected bi-/tri-lingual dictionaries included and treated translation equivalents.

## I. Translation Equivalents in MIRAS, LISAN and SABA

In MIRAS, an attempt is made to provide equivalents from English to Tigrinya headwords. On the other hand, in LISAN Tigrinya words and expressions are provided for the English head words. Moreover, SABA treats three languages. Although nouns, adjectives, and so on are fairly translated, the verbs are not equivalent in both LISAN and SABA

### Examples:

No	MIRAS	LISAN	SABA		
	Tigrinya English	English Tigrinya	English	Tigrinya	Amharic
1	በልሐ 'was sharpened'	elect (v.t) አውፅኦ (አደነገር)	Print (v)	ሃቲሙ	አተፈ
2	በልዓ 'ate, consumed'	eat (v.t) በልዓ፡ተመገበ	eat (v)	በለፀ	በላ
3	ዘከረ 'remembered'	remember(v.t) ዘከረ፡አስታወሰ	elect (v)	መሪፀ	መረፀ
4	ልግፍ/ሰ/ 'very few'				

Table 25: Translation Equivalents in MIRAS, LISAN and SABA

As the above examples show, in MIRAS, both the Tigrinya verbs and their English glosses are displayed in perfective form. The problem here is that the English glosses are inflected for past tense (perfective), and this is not the basic form of English words. Even English dictionaries never use the regular inflection forms.

On the other hand, the English head words in LISAN and SABA are written in their natural forms (present tense/imperfective), but their translation equivalents are perfective form. This is a common problem of most bilingual /trilingual English Tigrinya/ Amharic dictionaries.

Moreover, SABA did not provide equivalents even for the two Semitic languages Tigrinya and Amharic. To be equivalent, the Tigrinya verbs should have been written like 'በልዓ' /bələsə/, 'አተሙ' /hatəmə/, መሪፀ /mərəs'ə/, and so forth.

With regard to culture specific terms, these dictionaries do not contain examples, and any encyclopedic information. But LISAN included pictorial illustrations. In general, it seems necessary if linguists and lexicographers or dictionary compilers devise some strategy to tackle the problem of non-equivalency among English and Semitic languages bilingual dictionaries.

### 3.1.3 7. Grammatical Information (Parts of Speech)

Extensive and detailed grammatical information is needed for both kinds of mono-, bi- and trilingual dictionaries. In this regard, Svensén (1993:8) confirms that: “Information about parts of speech is needed primarily in dictionaries intended entirely or partly for passive use...in monolingual and passive bilingual dictionaries.” Hence the main purpose of grammatical information is to describe the grammatical properties of the head word.

As stated in the following table, some of the selected Tigrinya dictionaries do not offer any grammatical information at all.

**Table 26:** Grammatical information in the selected dictionaries

<i>Monolingual</i>			<i>Bilingual</i>		<i>Trilingual</i>
LISANE -AGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA
-	-	+	+	+	+
ሰባሪ...	ሰበረ...	ሰበረ/አ/	ተግዓተ(ግ) become victorious	break (v.t) 1. ሰበረ	break (n) ምስባር፣መስበር

Parts of speech

As stated in the above table, the two monolingual dictionaries, LISANE-AGAI and NAS'LA fail to provide any grammatical information. But the rest provides basic parts of speech (Noun, Verb...). But, the Parts of speech used in MTD are not very common or not widely used.

**Example**

	<i>MTD</i>	<i>MIRAS, LISAN &amp; SABA</i>	Gloss
1	ስም.....(ስ)	ስም	noun
2	ክንድስም .....(ክ.ም)	ክንድስም	pronoun
3	ቅፅል.....(ቅ)	ግስ	verb
4	አንቀፅ.....(አ)	ቅፅል	adverb
5	ወሳኒ መሳርዕ.....(ወ.መ)	ተወሳክ ግስ	preposition
6	መስሐቢ መሳርዕ....(መ.ወ)	መስተዋድድ	conjunction
7	ጠራፊ መሳርዕ.....(ጠ.መ)	መስተጻምር	Interjection
8	አመልካቲ መሳርዕ..(አ.መ)	ቃለ አጋንኖ	

As stated above the parts of speech used in MTD (4-8) are not standard and difficult for users. The compilers simply adopted it from Aba Mathews's grammar book, without considering the users perspective.<sup>33</sup>

### 3.1.3 8. Etymology

Etymological information tells about the origin and history of words in language(s). Every language contains words which originated from different sources. According to Landau (2001), the origin of words could be (i) inherited directly from the proto language (ii) borrowed from other languages and or (iii) it can be invented.

Drysdale (1979), quoted in Landau (2001:132), pointed out three main advantages of etymology: (i) Provide archaic information for the interested user to study the history of a language. (ii) Increase understanding of, and stimulate users' interest to study the word and the language. (iii) Since a dictionary is a record of the culture the inclusion of etymology provide clues to the history of the culture of the speech community. Etymology is peculiar/ typical of monolingual dictionaries. It is necessary in monolingual dictionaries than bi-or tri-lingual dictionaries. Svensén (1993:189) also argued that: Etymological information "... should in principle occur only in monolingual dictionaries in the user's native language." Hence, on the basis of etymology only the monolingual Tigrinya dictionaries are evaluated as in the following.

Table 27: Etymology in the selected monolingual dictionaries

Criteria	LISANE-AGAZI	NAS'LA	MTD
Etymology	√	X	x

Key: √... category found/ included      x ... category not found

### Examples:

<sup>33</sup> One of the compilers of this dictionary said "there was no standard Tigrinya grammar at that time, except Aba Mathews's Tigrinya grammar" if that is the case, a critical revision is needed for current use.

From: LISANE-AGAZI	gloss
<p><b>አክሱም</b>: ናይ: ከተማ: ስም: (p.460)  አብ ናይ ትግራይ: ክፍለ: ሀገር: እትርከብ:  ጥንታዊያን: ናይ: ኢትዮጵያ: ነገሥታት: ዝቅመጡላ  ዝነበሩ ከተማ: ክትከውን: እንተላ: “አ”: ጥንት:  ቀዳማዊ: ርዕ(አ)ሰ: “ኹሽም”:(ኹሻዊያ) ድማ: ደቂ: ኹሽ:  ሕሀዝቢ: ኹሽ: ነገደኹሽ ማለት: እዩ: ንሽም” ስለዚ:  አክሱም: ጥንታዊት: ቀዳማዊት: ናይ: ነገደ: ኹሽ:  መዲና: ርዕ(አ)ሰ ከተማ: እያ:: ኪ:ው:ኪ:፪፻፲፱::</p>	<p><b>Axum</b> (p.460) <b>name of a town.</b> It is a town found in Tigray province which was used as a seat of ancient Ethiopian kings. The word /ጱ- kšum/ came from, “አ” /ጱ/ means ‘ancient’ and /kšum/ or /kšawijan/ means son of ‘kuš’ or the kuš people. Thus, Axum refers to the ancient city of the ‘kuš’ people.....</p>
<p><b>ሀ</b>: ቀዳማይ: ፊደል: ናይ: ፊደል: መጀመርታ:(p.1)  ናይዚ: ፊደል: እዚ: ስም: ሀ: ሀሌታ: ከከውን:  እንተላ: ሀልሉያ (ሀልሉ-ያሀ) ካብ: እተብሃለ: ናይ  እብራይጢ: ቃል: እተወረሰ: እዩ: ትርጓሜኡ: ድማ:  አመስግኑ: ማለት: ይኸውን::</p>	<p>/hə/ the first Ethiopic symbol. This symbol called ‘haleta’. It originated from Hebrew word /hal+luja/ which means ‘give thank’ or ‘praise’.</p>

As shown in the above tables, only LISANE-AGAZI fulfills the criteria of etymology, but NAS’LA and MTD lacks it. The above examples indicate that, the outer tried to include etymological information in his dictionary.

### 3.1.3.9. Derivatives

According to Newell (1995:167), there are three main types of complex lexical forms called (a) derivatives, (b) compounds and (c) idioms.

As to Newell (1995:174), to avoid difficulty in handling derivatives in a dictionary, it is essential to classify them into regular and irregular both in function and form. Then, irregular derivatives those their meanings are different from the root should be handled as a separate head word. Similarly, Cowise in Hartmann (1983:102) said:

Where the meaning of a derivative is altogether predictable from those of the simple lexeme and its affix- as in the case of harassment, harass and- ment- we have not two lexemes but one, harassment being simply a form of harass. In such cases, information about the simple lexeme and its derivatives can be included in one dictionary entry, other things being equal- Where on the other hand we have a derivative whose meaning can not be entirely explained in terms of its components as perhaps with generation in relation to generate, we shall recognize two distinct lexemes, and assign them to separate entries.

Now let us see how derivatives are handled in the dictionaries under investigation.

## I. Treatment of derivatives in Tigrinya monolingual dictionaries

The selected monolingual Tigrinya dictionaries do not follow a systematic handling of derivatives as shown in the following table.

### Examples

LISANE AGAZI	NAS'LA	MTD
1. ወለዱ፡ (he) give birth	1. ወለደ	1. ወለደ/ኣ/1.give birth 2.....
2. ወለዳ (she) give birth	ተወለድ brave!	3.get profit.ወላዲ/ስ/...
3. ወላዲ 'father'	ወላዲ father	ኣቦ (father) ::ወላዲት/ስ/
4. ወላዲት 'mother'	ወላዲት mother ...	..... ኣደ (mother) ....
5. ወላድ 'fertile'		

**Table 28:** Treatment of derivatives in Tigrinya monolingual dictionaries

As stated in the table above, LISANE-AGAZI treats every derivative equally as head words (main-entry). It follows the flat layout. In contrast, NAS'LA follows the tiered layout; all the different kinds of derivatives and idioms are treated as subentries. On the other hand, it seems that MTD follow the nested layout, even though it did not contain abbreviated forms.

In principle, it is possible to follow one of the above methods. However, the flat layout is easy to search but difficult to distinguish the basic entry from the subentries. And the reverse is true within tiered layout. However, nesting is no more in use in current lexicography because it is not-user friendly (Atkins and Rundell, 2008; and Newell, 1995).

In the above dictionaries, the regular and irregular derivatives are not distinguished. For example, both of them are treated equally as main entry in LISANAGAZI, but they are treated as subentries in NAS'LA and MTD. Therefore these dictionaries should have distinguished first the regular and the irregular derivatives and treat them separately (the regular derivatives as subentries, and the irregular derivatives as headwords).

In general, the style guide should provide basic information about the treatment of derivatives. As Atkins and Rundell (2008:491) pointed out "Every dictionary has its own approach..." and it can follow mainly the tiered or flat layout depending on the compilers interest and his/her intended users.

## II. Treatment of Derivatives in Bi-/Tri-Lingual Dictionaries

Akin to the monolingual dictionaries stated above, the selected bi-/trilingual dictionaries lack the systematic way of handling regular and irregular derivatives.

### Example:

MIRAS	LISAN	SABA		
		English	Tigrinya	Amharic
ከለለ 1 protected from view 2 snaked out ከለላ(ስ) protection ክልል(ስ) region ክልላዊ (ቅ) regional	happy (adj.) ኡጉስ happiness(n) ደስታ ኃኡጉስ፣ደስታ፣ ፍሰሃ	happiness(n) happy (adj.)	ሓጎስ፣ ኡጉስ፣	ደስታ ደስተኛ

Table 29: Treatment of Derivatives in Bi-/Tri-Lingual Dictionaries

As stated above, MIRAS treats the derivatives as subentries. In contrast, LISAN and SABA treat all derivatives as main entries following the flat layout. Similar to the monolingual dictionaries, no attempt is made to distinguish between the regular and irregular derivatives.

### 3.1.3. 10. Treatment of Compounds in Tigrinya Dictionaries

Tigrinya has both endocentric and exocentric compounds. In endocentric compounds, usually the meaning is closely related to one of the components. However, exocentric compounds are semantically not compositional and their derived meaning is not closely related to one of the components. In other words, their members can not be identified as heads and non-heads. The meaning of the compound is not the sum total of the meanings of the constituent (Newell, 1995).

In general, dictionary compilers should have adequate knowledge on how to display endocentric and exocentric (lexicalized) compounds in their dictionary. In this regard Newell (1995:191) said [exocentric] compounds should occur as major entries in a dictionary, because they do not closely correspond to the combined meanings of the root. Let us see how compounds are treated in Tigrinya dictionaries.

LSAN-EAGAZI	NAS'LA	MTD	MIRAS
<i>As main-entry</i>	<i>As sub-entry</i>	<i>As sub-entry</i>	<i>As sub-entry</i>
ሓማት ተመን 'kind of lizard'	ሓርኢ ተመን 'too expensive'	ዓይኒ ምድሪ 'toilet'	ዓይኒ ምድሪ toilet

**Table 30:** Treatment of exocentric compounds in Tigrinya Dictionaries

In LISANE-AGAZI, both exocentric and endocentric compounds are treated as main entries. In contrast, in NAS'LA, MIRAS and MTD both are treated as sub-entries. Although, the introduction part of MTD informs exocentric compounds are treated as main entry, this method is not properly employed in the body (middle matter) of the dictionary.

In general, all the above dictionaries do not follow a standard way of treating exocentric and endocentric compounds.

### 3.1.3.11. The Treatment of Idioms

As to Newell (1995:192), idioms are essential and should be included in a dictionary. They “add color to the language and help for effective communication.” Although both compounds and idioms are complex lexemes, idioms have an identifiable grammar or part of speech. And they are also semantically and lexically fixed expressions.

It is possible to enter idioms as a main entry or as sub-entries under the first or basic elements (headwords). In English, if an idiom starts with a preposition, it is usually treated as sub-entry under the first head word (s) (Svenésn, 1993).

Most of the dictionaries under investigation provide several idiomatic expressions as shown below.

**Table 31:** Treatment of idioms in Tigrinya Dictionaries

Category	LISANE AGAZI	NAS'LA	MTD	MIRAS
Idiom	±?	+	+	+
	ነግ ፈረግ suspect / hesitate or doubted	ልብ-ኣዕብዮ 'became patient,	ልብ ሸጠ forget' (p-32)	ልብ ግብር 'be wise' (p-51)

Key: +? ...very rare (hardly ever)      + ... rare  
+ ...fair number                              + ...full (much no)

As stated in the above table, LISANE-AGAZI contains very rare idioms. On the contrary NAS'LA is generally a dictionary of idiomatic expressions. MTD and MIRAS also include a fair number of idioms. In contrast, LISAN and SABA treated a few number of idioms.

### 3.1.3. 8.12. Dialect Treatment in Tigrinya Dictionaries

Every language has dialectal variation. This can be caused by geographical difference or political, ethnic, economic and even gender differences. Lexicographers are mainly interested on geographical variants. In principle, before the beginning of lexicographical work, the dialects of a language need to be studied by linguists' chiefly sociolinguists in order to identify the standard dialect. Hence, the lexicographer should work together with linguists. Especially if a dictionary is planned to represent more than one dialect the following procedures need to be followed.

- begin with a systematic study of dialects of a language
- distinguish or choose the standard dialect which is widely spoken
- collect data in the standard dialect first
- check other dialects for differences in vocabulary
- establish a clear procedure for collecting headwords
- first analyze the words in the standard dialect and then in the other dialects to find out meaning differences
- all the main entries need to be selected from the basic/standard dialect and written without dialect label.
- other dialect variants should be labeled or marked and entered as minor entries with cross-reference to the main-entry in the basic dialect.

**Table 32:** Basic principles of dialect treatment in Dictionaries ( summarised from Newell , 1995:155-158; Bartholomew and Schoenhals, 1983:93-99)

Nevertheless, for urgent pedagogical purposes, the lexicographer might not wait till dialects are systematically studied. In such conditions, he/she can select head words acceptable to the largest number of people via consulting users form different areas where the language is spoken. If the language has written documents, media, etc. they can be rich sources of information.

However, it is impossible and not practical to include every dialect variant forms as main entry in a dictionary. If different dialects are mixed, the dictionary might represent a

language which nobody uses, and can be rejected by all users. In this regard, Bartholomew and Schoenhals (1983:93) asserted that: “Since it is impractical to compile a separate dictionary for each variety of a given language...[chose] a basic or central dialect to represent the larger language area and then... include [...] lexical variations from some of the surrounding areas.”

Having this in mind, let us see how dialect variants are treated in the dictionaries under investigation.

### I. Dialect Treatment in Tigrinya monolingual Dictionaries

General purpose monolingual dictionaries should include fair number of variants from major dialects mainly if entries are well defined in the other dialects other than the standard dialect. The following table shows the treatment of dialects in Tigrinya monolingual dictionaries.

Category	LISANE -AGAZI	NAS'LA	MTD	MIRAS
<b>Dialect</b>	X	x	√	x
	- No dialect	No dialect	dialects treated as main entry	No dialect

**Table 33:** Dialect treatment in Tigrinya monolingual dictionaries

As stated in the above table, LISANE-AGAZI and NAS'LA do not show dialect variants. However, monolingual dictionaries need to include same basic variants usually by specifying the area where the variants are used. Moreover, MIRAS do not show dialect variants.

On the other hand, MTD encompasses several dialects. In this dictionary, an attempt is made to treat every dialect as the main entry and data were collected from several parts of Tigray and Eritrea.

Head word	Its definition	gloss
1. ጫሊ /ወ.ወ/.....	ሕራይ፣ እሺ (p.889) .....	okay/all right ,acceptable possible
2. ሕዘ. /ወ.መ/.....	ሕጂ. (p.110) .....	now
3. ሕዳ /ወ.ሰ/.....	ሕጂ (p.111) .....	now
4. ነነየ /አ/.....	ነነወ (p.477) .....	shaken
5. ነይንየ/አ/ .....	ነነወ (p.481).....	shaken
5. ነዓ /አ/ .....	ንዓ (p.480).....	came
6. ንዋት/ሰ/ .....	ነዋይ (p.493).....	wealth/ property
7. አረየ/አ/.....	አረወ (p.513).....	pecked up gathered (wood)
8. ዓከዓከ/ሰ/ .....	ዓከዓከ (p.493) ..?	} ambiguous and circular
9. ነትሽ/አ/ .....	ኖትሽ (p.513) ..?	

As one can see from these examples, the dictionary includes several dialect variants but there is no information about where the variants are used. Moreover, there are several ambiguous /circular definitions as in the examples above. In general, this dictionary lacks the method of treating dialects and it needs a critical revision.

## II. Dialect Treatment in the Bi-and Tri-lingual Dictionaries

Bilingual and trilingual dictionaries, those use English as a source language should show British and American variants. Although English has several variants spoken in different parts of the world, such as, British, American, Australian, Indian, and South African English varieties, and so on; for historical reasons, British and American English variants remain as dominant varieties. It is the difference between these that LISAN and SABA expect/need to show.

British and American English show variations in (i) semantics (meaning), (ii) pronunciation (iii) spelling and sometimes even (iv) grammars. Let us see whether or not the above dictionaries show British and American variations.

	British	American	LISAN	SABA
1	<b>Semantic difference</b>			
	petrol	gas	petrol (p-493)	petrol (p-218)
	mobile phone	cell phone	mobile (p-427)	mobile (p-176)
	sweets	candy	sweet (p-683) candy (Am-p-81)	sweet (Br) (p-351)
2	<b>Spelling</b>			
	<b>Our</b>	<b>-or</b>		
	humour, labour	humor, labor	color (colour) (n)	colour (Br) (p-40)
	<b>Tre</b>	<b>-ter</b>		
	centre	center	centre (n) (p-83) (Am)	center (Br) (p 35)
	<b>-nce</b>	<b>-nse</b>		
	defence	defense	defense (n) p-148	-
	offence	offense	offence (n) Br (p460)	-
	<b>L</b>	<b>-ll</b>		
	Skilful	skillful	skilful (adj) Br (p-624)	-
	instalment	installment	installment (n) (Am)	
3	<b>pronunciation vowel followed by /r/</b> <sup>34</sup>			
	mother /mʌðə/	/mʌðər/	mother (n) (Br) ማዘ(ስ)	mother (n) ማዘር
	bird /bɜːd/	/bɜːrd/	bird (n) ቢድ	bird (n) ቢርድ

Table 34: Dialect treatment in Tigrinya bi-and tri-lingual dictionaries

In principle, if a bilingual dictionary uses British English it should treat American English as a variant and vice versa. Besides, such information should be given in the front matter of the dictionary. However, there is no such information given for the above dictionaries. These dictionaries are not consistent for they use the American variant in some words and the British in the other. Hence, this gap should be corrected so as to provide accurate information for the intended users.

### 3.1.3.13. Assessing the Treatment of Examples in Tigrinya Dictionaries

Dictionaries should provide clear and to the point examples. The main entry should appear in context without any modification. Examples must clarify complex entries like collocations in natural way and culture specific terms. The following table shows summary of good characteristics of examples, the method how they should be displayed in a dictionary and their peculiar advantages.

<sup>34</sup> Vowels with /r/ following them are called rhotic or r-colored. These are pronounced without the /r/ by British English speakers, but the /r/ is pronounced by most American English speakers. Nevertheless, if the /r/ appears in front of a vowel in the next word, it is pronounced by both British and American Speakers.

10. Examples	<p><b>I. Characteristics of good examples</b></p> <ul style="list-style-type: none"> <li>- <b>focused</b>- Shows the basic/main point of the particular sense of main entry</li> <li>- <b>natural</b>- Shows natural and is in a natural cultures setting</li> <li>- <b>typical</b>- Indicates a typical use of the head word</li> <li>- <b>clear</b>- must be intelligible and clear in vocabulary.</li> <li>- <b>not too long</b>- Has no irrelevant details. Have not normally more than 10 words.</li> <li>- <b>cultural relevance</b>- example need to be accurate and a true statement in the culture.</li> <li>- <b>not judgmental</b>- avoid political, religious or cultural bias</li> <li>- <b>useful</b>- is not pointless, but gives useful information.</li> </ul> <p><b>II. How to write examples in a dictionary</b></p> <ul style="list-style-type: none"> <li>- show typical structure and delineate the area of meaning of the entry word.</li> <li>- show a variety of grammatical patters; use variety of person and tense</li> <li>- show the head word in the example, not its derivatives</li> <li>- make sure that all words in the example sentence are in the dictionary</li> <li>- add enough contexts and try to make interesting one sentence “story”</li> </ul> <p><b>III. Advantage of providing examples/illustrations in a dictionary</b></p> <ul style="list-style-type: none"> <li>- discriminate (specify) the area of meaning of the head word</li> <li>- distinguish between applicable and non applicable sense and contexts</li> <li>- clarify potential ambiguities due to multiple meanings of the source language</li> <li>- display local and cultural essence (style).</li> </ul>
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**Table 35: Characteristics of good examples; Summarized from Atkins and Rundell (2008:452-461), Bartholomew and Schoenhals (1983:59-69), Newell (1985:326-331) and Landau (2001:207:211).**

Where do examples come from? Good examples can be extracted (elicited) from various sources like written documents, TV, Radio, cultural ceremonies, and so forth. Atkins and Rundell (2008) also said typical examples can be collected from corpus data. This can be helpful for the European languages which have billions of online corpus data. For instance, the British and brown corpus provides rich and compressive examples in context.

However, for African languages like Tigrinya, the lexicographer should depend on written documents and oral folklore and the like.

On the whole, a typical example helps for the user to grasp new concepts as well as for the compiler for sense discriminations, meaning and grammatical restrictions, and so on. Concerning the function of examples, Bartholomew and Schoenhals (1983:60) also asserted that: “Good examples act as a window through which the dictionary user can

view the local culture in area of folklore, customs, beliefs, agriculture and economic practices.” Now, let us move on to the evaluation how the selected dictionaries incorporate examples.

### I. LISANE-AGAZI

As far as the treatment of examples is concerned, this dictionary remains better than the other monolingual dictionaries. It encompasses relatively typical and precise examples.

Example	Gloss
<p>መጊቡ፡- ቀሊቡ፣ አብሊዑ፣ ሰስዩ</p> <p> <span style="font-size: 2em; vertical-align: middle;">{</span> <span style="display: inline-block; vertical-align: middle;">           እቲ ከምግብ ክእስትን፣ ኣላፍነትን            ዘልዋ ሰብ ነቶም... ምግብ ኣዳሊዎ            ብምምጋብ ሰንዩዎም፡፡         </span> </p>	<p>1. fed/feed v. nourish, gave food</p> <p>The person who has the ability and responsibility to feed, prepared food and gave for.... and accompanied them.</p>

example

As shown in the above example, in LISANE-AGAZI, the basic definition appeared first and this is followed by typical examples. However, the main entry is modified in the example and appears in its derivatives as shown in the table above.

### II. NAS'LA

As stated before, this dictionary is full of idiomatic expressions; hence it does not contain several examples. However, in some cases examples are provided especially when the author tried to define difficult concepts.

Example	Gloss
<p>ሰብ</p> <p>ሰብ ኮይኑ 1. ለቢሙ</p> <p>2. ተመሓይሹ</p> <p>ታጊሁ ምስራሕ ምስጀመሪ ሰብ ኮይኑ ኣደ.</p>	<p><b>Man</b> (human)</p> <p>(he) became a man (human) 1. became wise</p> <p>2. improved</p> <p>After he started working hard he improved himself (he became a man)</p>

Example

### III. MTD

This dictionary also includes some examples mainly in a long definition that contain several subentries. They are given in brackets. Hence, it is not easily accessible to the user since they are written inside long paragraphs.

Example	Gloss
ሐደ /ሰ/ ፍቅዲ እንጂምረሉ ናይመጀመርያ ቁፅራ---- (ሐደ መግለጺ) Example	One (n) the first number that we start counting --- (one day)

Nevertheless, most of the head words in this dictionary do not encompass examples. In general, the assessment of the selected dictionaries in terms of the treatment of examples can be summarized as in the following table.

Category	Monolingual			Bilingual		Tri-lingual
	LISANE -AGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA
Example	+	±	±	-	-	-

**Table 36:** The treatment of examples in Tigrinya dictionaries

As stated in the above table all the selected bi-/tri-lingual dictionaries do not contain examples in context. Even two of the monolingual dictionaries NAS'LA and MTD do not encompass examples for most of the headwords. On the whole, except LISANE AGAZI all the selected dictionaries do not fulfill the criteria of providing good examples. Even in LISANE-AGAZI, the headwords are usually modified when they appeared in the examples.

### 3.1.3.14. Assessing the Treatment of Pictorial Illustrations in Tigrinya Dictionaries

Before directly going to the evaluating of the selected dictionaries on the bases of the inclusion of pictorial illustrations, let us first see the method/ principle on how to select and display pictures in a dictionary.

The inclusion of pictorial illustrations helps to stimulate interests of users of the dictionary. It highlights the local culture (culture specific terms) and enhance the outsider's understanding of the local culture. It also increases comprehension of specific domains. Photographs are more realistic than drawing; but must contain relevant features that are common to the whole species. Since they are expensive and takes more space than drawing the lexicographer should usually use colored photograph to distinguish plants (such as flowers & fruits), animals, minerals, to show complicated relationships and to

distinguish (describe) the colors themselves. Svensén (1993:1993:167-180), and Bartholomew (1983:223-227).

As mentioned above, pictorial illustrations are essential to define complex words and culture specific terms in monolingual and bi-/trilingual dictionaries. For instance the problem of defining culture specific words in bilingual dictionaries can be usually solved by providing typical pictures. However, care must be taken to avoid providing pictures of taboo and offensive subjects. In other words, the pictures must be checked with the local people and with accuracy. (Svensén, 1993, Landau, 2001 Bartholomew and Schoenhals (1983).

The following table shows the presence / absence of pictures in the dictionaries under study.

**Table 37: Treatment of Pictorial Illustrations in Tigrinya Dictionaries**

Monolingual			Bilingual		Trilingual
LISANE -AGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA
+	-	-	-	+	-

Total No of pictures =277

Total No of pictures = 172

As stated in the table above only two dictionaries included pictorial illustrations. But all the rest four dictionaries do not encompass any picture.

### **I. LISANE-AGAZI**

One of the strengths of this dictionary is its inclusion of typical and carefully selected pictures. There are about 277 total number pictorial illustrations that contain pictures of animals (both domestic and wild), plants and things like house, machines, computer, tractor, tank, and so on. Besides culture-specific names like obelisks of Axum, castles of Gonder, and various kinds of religious (church materials) like ark of the Tabernacle, drum, crown and so forth are included.

## II. LISAN

This dictionary also provides about 172 selected pictures of animals, plants and the like. The inclusion of a group of related things like pan, knife, groups of animals such as leopard, lion, culture specific terms like sausage, and so on, make the dictionary a rich source of information.

However, there are a few pictures repeated. For instance the picture given for the word 'owl' (p-471); is identical to that of 'parrot' (p-296). Similarly, 'nipper' (p-448) and pincer (p-493), earphone (143) and headphone (p-296/7) have identical pictures. But with the principle of economy, identical pictures should not appear for different words/concept. This can also confuse users, since one picture represents two concepts.

### **3.1.3.15. Evaluating the Use of Comments and Usage-Labels in Tigrinya Dictionaries**

Dictionaries need to include comments and usage labels divergences from standard vocabulary and warn of restrictions on the use of words and their meanings. By specifying how words are used in space, time or society, usage labels provide essential information for dictionary users on the actual or desirable claim of each of the labeled words. Thus, qualifying comments help to restrict the area of meaning either to the source or to the target language (Bartholomew and Schoenhals ,1983).

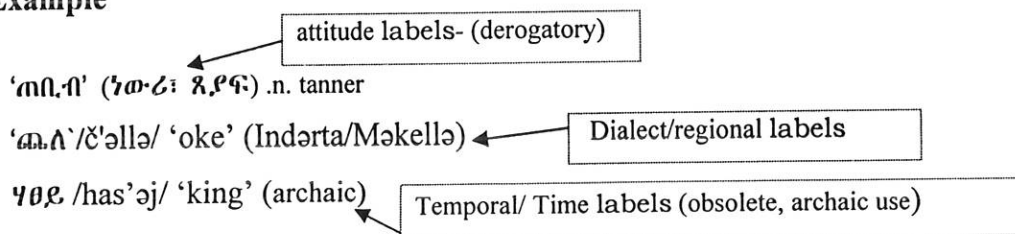
A label gives important information about the use of a particular headword. As to Atkins and Rundell (2008), Landau (2001), and so on, there are various kinds of usage levels. Some of the important levels are summarized in the table below.

<b>Comments and Labels</b>	<b>Advantage of comments and labels</b> - <i>Sense indicators</i> : use to identify the sense of the word - <i>Restrictions</i> : use to restrict the meaning of the gloss.
	<b>(i) Comments</b> - Indicate typical subjects of verbs, collocations of adjectives and nouns.
	<b>(iii) Labels-</b> gives an indication of the usage of the word
	<b>(a) Attitude labels-</b> (derogatory or appreciative) - shows that use of the word is intended to imply approval or disapproval; that is the speaker's or writer's attitude. It is very necessary for bilingual dictionaries
	<b>(b) Dialect/regional labels</b> - shows that the word is mainly used in a certain geographical area.
	<b>(c) Subject-field/domain labels</b> - indicates that the word is used in a particular discipline like Medicine, Biology, Agriculture, Linguistics, lexicography etc.
	<b>(d) Formal/Informal labels</b> (slang, & Jargon)- Indicates that the word is used in informal (non-standard) or formal speech or writing.
	<b>(e) Temporal/ Time labels</b> (obsolete, archaic use)- shows that the word is not longer in use in current language.
	<b>(f) Meaning type labels:</b> Literal/figurative- indicates that the word should be interpreted literally and figuratively
	<b>(g) Taboo/offensive labels-</b> indicate that the use of the word will cause offence and should normally be avoided. It helps to restrict usage, is important for both bilingual & monolingual dictionaries.
<b>(h) Euphemism labels</b> - indicates a polite or indirect way of saying something and or embracing. e.g. to pass away (= die)	

**Table 38:** Types of Comments and Usage-Labels to be included in Dictionaries; Summarized: from Atkins & Rundell (2008:402-405,496-498), Landau (2001:217-272) and Newell (1995:273-275) Bartholomew and Schoenhals (1983:81).

As summarized above, there are about 8 types of important labels to be included in a dictionary. Such labels are very crucial for both the source and the target language users. They can mainly function as a sense indicator and help for second language learners.

**Example**



On the bases of the criteria stated above, let us now discuss how comments and labels are treated in the selected dictionaries.

**Table 39:** The Use of Comments and Usage-Labels in Tigrinya Dictionaries

LISANE AGAZI	NAS'LA	MTD	MIRAS	LISAN	SAB A
-	+	-	+	+	-
	<p>ወረደ .....</p> <p>(ካብ በቅሊ፣ካብማኪርና)</p> <p>(from horse or car)</p> <p>እኸሉ፡አይተደፈረሉን</p> <p>(ንዝሓመመ ሰብ)</p> <p>(for sick person)</p>		<p>ፈተነ (ግ) tested, examined (school)</p> <p>ፈለኸልኸ በለ(ሐግ) boiled (milk, water tea etc)</p>	<p>stifle (vie)</p> <p>አጥፍኡ (ንሓዊ)</p> <p>(for fire)</p>	
	Labels/Comments		labels/ Comments		

As stated above, NAS'LA, MIRAS and LISAN include comments at the end of some ambiguous definitions. Hence, it helps to restrict the definition to the intended meaning. However, the other dictionaries, LISANE-AGAZI, MTD and SABA do not include any comments. Then again, let us see whether the dictionaries include taboo words and how they were labeled.

CATEGORY	LISANE-AGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA
Taboo	-	-	+	+	±	+
labeling	-	-	-	-	-	+
remark	<i>No taboo</i>	<i>No taboo</i>	<p>Include many taboo words without labeling (p.203)</p> <p>E.g. ረወኦ 'Made intercourse</p>	<p>include several taboo words without labeling</p> <p>E.g. ወገረ (227) 'fucked' / Made intercourse</p>	<p>few taboo but no labeling</p> <p>E.g. vagina (n) (ግግግ) (p.738)</p>	<i>No taboo</i>

**Table 40:** The treatment of taboo words in Tigrinya Dictionaries

As summarized in the above table, the three dictionaries LISANE-AGAI, NAS'LA and SABA did not include taboo words and no labeling is needed. In contrast, MTD and MIRAS included many taboo words, without labeling. In other words, all the taboo words are treated as if they were commonly used in every day life. This can create serious

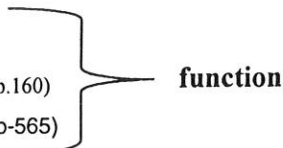
problem especially for second language learners, because they can use such expressions in their formal speech and as a result might hinder communication.

As stated above, if taboo words are to be included in a dictionary, they should be labeled with the word (ጸያፍ) ‘taboo’ next to the definition of the headword. In general, all the compilers lack the principles and methods of labeling and including taboo words.

### 3.1.3.16. Treatment of Technical Terms and loanwords

General purpose dictionaries should include a fair number of technical words. Besides, the loanwords those naturalized to the language and those which do not have equivalents in the target language like, police, computer, TV, and so on, need to be included; or else experts should coin appropriate equivalent technical terms.

Some dictionaries like LISANE-AGAZI tried to exclude loanwords by translating the loanword in to Tigrinya on the bases of their function as shown below.

<p><u>Example</u> tractor computer tank</p>	<p><u>LISANE AGAZI</u> ካራሲት መኪና መፅሓፊት፣ መኪና (p.160) ድርፅቲ፣ ማኪና (p-565)</p>	
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As stated in the above examples, the author tried to exclude English borrowed-words by translating into Tigrinya phrases. However, this is not an appropriate way, since the main concern of a dictionary is lexemes or words, the translating equivalent need to be economical. Hence, lexemes should be translated into another lexeme as much as possible. NAS’LA does not include borrowed and technical terms. On the other hand, MIRAS, MTD, LISAN and SABA have included some naturalized loanwords like computer; police etc. But MTD encompass unnecessary loanwords from Amharic and other language like Italy.

Example (MTD)		Tigrinya	gloss
ወንበደ (.p.664)	(Amharic)	ሸፈተ <sup>35</sup>	rebelled
ነሰአ /አ/ (.p.654)	(Ge'ez)	ወሰደ	Take
ኮምፕዩተር (.p.471)	(Italian)	መሰርሒ ጠረጴዛ	'A material (tool) used to make a table'

In general, in MTD, it seems no attempt is made to exclude unnecessary borrowed word; even those words which have equivalents in the language are included as in the above examples. Hence, this dictionary needs a critical revision.

### 3.1.4. EVALUATING TIGRINYA DICTIONARIES IN TERMS OF MEDIO-STRUCTURE (CROSS-REFERENCE)

This section shows how cross-referencing is treated in the dictionaries under investigation. According to Svense'n (1993:194), cross-references have many functions, such as (i) "to save space", (ii) "to guide the intended user to the correct place in which detailed information is given" and (iii) "prevent information form being lost." Thus the lexicographer's duty is to inform users via cross-referencing. In other words, guide the user to another entry in which more information is provided. Newell (1995:138) also said that: "Cross-referencing should usually be to the simplest form of the stem (usually) a root from which the lexical item is derived or compounded."

There are 'explicit' and 'implicit' cross-references. An explicit- cross-reference is manly expressed as an invitation introduced by "see" cf. (compare), and so forth. In same cases, the word "see" can be replaced by symbols like 'Δ', '∅', or '♂', etc. an asterisk '\*' or an arrow '→' and so forth. However such symbols must be explained in the dictionary style guide. In general, explicit cross-reference implies there is more information in the entry referred to.

On the other hand, implicit cross-reference informs the user the existence of another form. It is usually part of a statement about the headword or the phrase involving. Wording like pl. (plural), fem. (feminine) or past, and so on, indicate that the word is an inflected form of the headword and (implicitly) for more information look up the root

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<sup>35</sup> used in Amharic and in Tigrinya.

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ነሰአ /አ/ (.p.654)	(Ge'ez)	ወሰደ	Take
ኮምፕዩተር (.p.471)	(Italian)	መሰርሒ ጠረጴዛ	'A material (tool) used to make a table'

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<sup>35</sup> used in Amharic and in Tigrinya.

word. Moreover, an implicit cross-reference may use words like ‘also’, ‘variant of’ or different type-face of the word. All minor entries are cross-referenced to the main entry. Endocentric compounds have a cross reference to their components. While explicit cross reference shows one direction, implicit cross reference shows both directions (Newell, 1995, Svensén 1993, Atkins and Rundell, 2008).

The following are important guidelines for including cross-reference in a dictionary.

<b>Principles of cross-referencing</b>	<ul style="list-style-type: none"> <li>- for minor entries, give a simple gloss in addition to cross-reference</li> <li>- minor entries of variants/ irregular forms → cross reference to the main entry</li> <li>- minor entries of derivatives → cross reference to the form it is derived from</li> <li>- compound or idioms → cross-reference to the components</li> <li>- make sure that the word you are referring to, exists in the dictionary</li> <li>- make an explicit cross-reference only, if there is more information in the entry referred to</li> <li>- in case of homonyms or multiple senses, include the homophones number or the sense number of the word you are referring to</li> <li>- do the cross referencing form the less important to the more important entry or treat the entries equally and give an implicit reference in both</li> </ul>
--	--

**Table 41:** Principles of cross-referencing; summerised from *Newell, (1995), Svensén (1993), Atkins and Rundell, (2008)*

Cross-referencing must be for further information. The core definition should be provided in the first place for every entry. In this regard, Atkins and Rundell (2008:412) asserted that: “The user shouldn’t have to consult another definition in order to understand the one s/he is looking up.” This confirms that cross-referencing must be user-friendly.

Having the above principles in mind let us see how the Tigrinya dictionaries under investigation treated cross-referencing.

**Table 42:** the treatment of cross-referencing in Tigrinya Dictionaries

LISANE AGAZI	NAS’LA	MTD	MIRAS	LISAN	SABA
+	-	+	+	-	-
appropriate to some extent	No C.R’ at all	<i>Not appropriate, C.R’</i> No basic definition is given to the headword	<i>Not appropriate C.R’</i> No basic definition is given to the headwords	No C.R’ at all	No, C.R’ at all

*Key: C.R’ - Cross referencing*

As stated above, only LISANE-AGZI attempted to provide useful cross-referencing.

Example:

<p>1. አክሱም      name o a town          ርዕ(አ)ሰ ከተማ፡ እያ። ኪ፡ው፡ኪ፡፪፻፲፱።</p> <p>2. ዕዩን .... name of a mountain          --- The town of David          2/3:2 ሳሙ 6/12-16</p>	<p>(cross)-reference</p>
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However, as stated above the author seems biased in favor of Orthodox-Church. Most of the cross-references are external to religious books like the Bible and David’s Palms, and the like. This is not only inappropriate for the non-followers, but also for its believers. The user is not expected to refer other books to get the definition of one word. But in general, this dictionary provides adequate definition for each headword and the cross-referencing are simply for further encyclopedic information.

In contrast, MTD and MIRAS use inappropriate/unhelpful way of cross-referencing. All cross-referencing have been given without providing basic definition to the main-entry as in the following table.

	MTD	MIRAS
1	መቻሰ /ሰ/ እብ መቻሰ ረአ (see) ‘sassier’ see in ...	1. ዕድል /ሰ/ አብ ዓደለ ረአ ‘chance’ see in ...
2	ስብሐ /ሰ/ አብ ስብሐ ረአ } cross-reference ‘fat’ see in ...	2. ዮካቲት/ሰ/ አብ ለካቲት ረአ } cross-reference February sees in ...
3	ምኸሪ /ሰ/ አብ መኸሪ ረአ } ‘advice’ see in ...	3. ግምባር/ሰ/ አብ ግንባር ረአ } ‘forehead’ sees in ....

Just like the above examples, MTD includes about 1975 headwords with unhelpful or not user-friendly way of cross-referencing. This accounts about 10.8% of the total main entries. Likewise MIRAS contains about 308 (8.77%) cross-references just like the above example. Hence, as far as the principle of cross-referencing is concerned, both MTD and MIRAS lack appropriate methodology.

In general, unlike to Atkins and Rundell (2008) claim, the user is expected to search two times for a single word. Therefore, all the dictionaries under study, except LISANE-AGAZI (to some extent) do not follow the principles and methods of appropriate cross-referencing. It seems better not to provide cross-reference at all than the way of cross-

referencing used in MTD and MIRAS because the user at least can get the basic definition in his/her first search.

### **3.1.5 EVALUATING THE ACCESS-AND DISTRIBUTION-STRUCTURE IN TIGRINYA DICTIONARIES**

As discussed earlier in chapter two, sections (2.2.3.5) and (2.2.3.6) both the access and distribution structure are important components of a standard dictionary. While the main purpose of the access structure is to direct users to the information required; the distribution structure indicates the relationship between the linguistic and encyclopedic information.

The distribution structure can be included as individual article, framed article or in a separate section as a dictionary grammar. However, since no one of the Tigrinya dictionaries fulfills this property we shall concentrate here on the access structure.

There are internal (inner) and external (outer) access structures that can be included in a dictionary. The outer access structure can be found in the front page mainly for multi-volume dictionaries. It tells which alphabet is included in which volume. Each page of a dictionary needs to indicate a running head at the top of the page. Pertaining to this, Bergenholtz and Tap (1995:220) confirm:

To speed up access in the word list, structural indicators are usually used in the form of a running head, understood as one or more words, or parts of words at the top of the page --. Where the page is divided into vertical columns, the running head indicating the first lemma should be placed at the top of the left-hand column and the running head indicating the last lemma at the top of the right- hand column.

Besides the inner access structure should include different indicators for grammar notes, collocations etc.

**For example:**

- Grammatical notes can appear in angular brackets or some other special characters.
- Encyclopedic labels appear usually in brackets.
- Collocations should be indicated by especial symbol



categories of the accesses structure. As shown above. However, the categories of the assess structure should be user-friendly. In other words it should be clear and easy for the user. In general a standard dictionary is expected to incorporate all the different properties of dictionary structure.

## **3.2. STUDENTS' QUESTIONNAIRE ANALYSIS**

This section presents analysis of the data obtained from the students' questionnaire. Findings are reinforced by evidences from the literature where necessary. To begin with the literature, several lexicographers reveal the importance of including a survey of dictionary use as one crucial component of dictionary evaluation. For instance, Yin Wa and Taylor (2003) assert the following point.

. . . reviews [dictionary evaluations] to be truly useful to their intended readers, they should be evaluative and that at least part of the evaluation should be based on a study of the use of the dictionary by target users.

Likewise, Shalom (1996) quoted in Yin Wa and Taylor (2003) argued: "The voices of dictionary users-students and teachers-need to be encouraged and heard and there should be a far more systematic process of hearing users' voice..."

The above citations clearly show that any form of dictionary evaluation/criticism requires incorporating perspectives of the user. As to the method/technique of data collection, Hartmann gives us a lucid summary of different data collection techniques (see chapter one for details).

Let us move on to the analysis of the questionnaire findings. Copies of a questionnaire that has 26 questions were administered to be filled in by 105 students. The intention was that the students could be cooperative to fill in the questionnaire in about half an hour, and return it in the class. On the whole, it was a successful attempt.

### **3.2.1. Background of the Respondents**

The respondents were asked to complete their personal details regarding gender, age, institution they were attending, batch of study, major and minor areas, mother tongue, second language, and foreign language. A summary of the results are presented in the table below:

Question item 1		Response	
		N0	%
Gender	Female	44	41.9
	Male	61	58.1
	<b>Total</b>	105	100
Age	15-19	14	13.3
	20-25	91	86.7
	<b>Total</b>	105	100
Higher institution	AAU	30	28.6
	MU	75	71.4
	<b>Total</b>	105	100
Level (batch )of study	First year	38	36.2
	Second year	47	44.8
	Third year	20	19.0
	<b>Total</b>	105	100
Major	Tigrinya	105	100
Minor	English	15	14.3
	Amharic	49	46.7
	Folklore	3	2.9
	<b>Total</b>	67	63.9
Mother Tongue language	Tigrinya	105	100
Second Language	Amharic	97	92.4
	Other than Amharic	8	7.6
	<b>Total</b>	105	100
Foreign Language	English	105	100

**Table 44: Student Respondents' Personal Details**

The table above presents personal details of the students. As is shown, 41.9% of the students are females and the remaining 58.1% are males. Similarly 13.3% fall in the age range between 15 to 19, and the rest 86.7% between 20 to 25 years. Regarding their university affiliation, 28.6% of the respondents are from AAU and 71.4% from MU. Regarding the level of study, 36.2% of the respondents are first year, 44.8% second year, and the remaining 19% third year students. All the respondents are Tigrinya major, among whom the students in the second year and third year, which make up 63.9% of the total subjects, do have minor courses. Accordingly, 14.3% of them are English minor, 46.7% Amharic minor and 2.9% Folklore minor. It is also apparent from the table that all the students are native speakers of Tigrinya with English their foreign language, and Amharic as well as some other languages as their second languages.

### 3.2.2 General Questions

#### 3.2.2.1 The “When” Question of Dictionary Use (Question item 2)

Subjects were asked to specify the grade level in which they began to use dictionary. The results are presented in the table below:

Response	No of respondents	% of respondents
Primary school	47	44.8
Secondary school	57	54.3
University	1	0.9
<b>Total</b>	105	100

**Table 45: Response on start of dictionary use**

As evident from the above table, 44.8% of the students have started to use dictionary at primary school, and the majority of the students (54%) have started to use dictionary at secondary school. However, in order to be effective, learners should begin using dictionaries at early level and there should be dictionaries in terms of grade level (for primary, secondary & advanced). In this regard Hartmann (1999 in his research “Case Study: The Exeter University Survey of Dictionary Use” found 81.7% of his respondents start to use dictionary at primarily level. Therefore, it is possible to assume that early dictionary use can play significance role on the quality of education mainly in foreign and second language learning. Hence, learners should encourage/thought to use dictionary earlier at the level they begin learning. This can help them to develop their vocabulary stock and improve dictionary using skills. For instance, they can develop their dictionary consultation skills/look-up strategies, understanding meaning, information about spelling, pronunciation, and so on. Moreover, early dictionary use helps the learner to know the role of dictionary as a crucial material which supports the learner inside and outside classroom.

#### 3.2.2.2 Type and Number of Tigrinya Dictionaries Owned (Question items 2& 4)

In number two of the students’ questionnaire, respondents were asked to specify whether they own a dictionary. The results show that 72.4% of the total respondents own dictionary, and the remaining 27.6% do not. This demonstrates that most of the students possess dictionaries. However, it may not imply that majority of the students use the

dictionary because ownership and usage mostly are two different realities that one may not work at the expense of the other. Regarding this point, Hartmann (1999:32) revealed that possession does not necessarily imply dictionary use. On the other hand, purpose, availability, price, durability, and so on would matter for owning a dictionary.

Respondents were also asked to tick from the alternatives the types of Tigrinya dictionary they own. They were allowed, if required, to tick as many of the dictionaries they own from the lists. The results are summarized in the table that follows:

Respondents	Monolingual			Bilingual		Trilingual	other
	LISANE AGAZI	NAS'LA	MTD	MIRAS	LISAN	SABA	
No	5	11	10	27	24	22	6
%	4.8	10.5	9.5	25.7	22.9	21	5.6
<b>Total</b>	<b>26 (24.8%)</b>			<b>51(48.6%)</b>		<b>22(21%)</b>	<b>6( 5.6)</b>

Table 46: Types of Tigrinya dictionary owned by the students

As shown in the table above, 48.6% (majority) of the students possess bilingual type of Tigrinya dictionary; 24.8% of the students possess monolingual types of Tigrinya dictionary, and 21% of the students own trilingual type of Tigrinya dictionary. The remaining 5.6% possess other Tigrinya or non-Tigrinya dictionaries, which are not under the scope of the study. As evidenced from literatures (for example, Lew ,2004; Piotrowski 1994; etc.) bilingual dictionaries are preferred to monolinguals for their multiple functions.

Within the bilingual types of dictionaries, several students possessed MIRAS (Tigrinya-English dictionary) than LISAN (English-Tigrinya dictionary). This can imply active bilingual dictionaries (those begin with mother tongue) are preferred to the passive bilingual dictionaries (those start with the foreign /second language).

### 3.2.2.3 Condition and Priority of Dictionary Purchase (Question items 5, 6, &7)

With regard to the conditions and Priority of dictionary purchase, three questions were developed to know whether the learners are familiar with the qualities/ standards of their dictionaries, and produced the following results.

Response	Respondents	
	No	%
Teacher recommendation	5	4.8
Personal preference (purpose)	70	66.7
A friend/other person had it	9	8.4
Advertisement	7	6.7
Can't remember	5	4.8
Other case	9	8.6
<b>Total</b>	<b>105</b>	<b>100</b>

**Table 47: Condition of Dictionary Purchase**

As illustrated in the table above, 66.7% (the majority) of the students bought Tigrinya dictionary as the result of ones' own choice. One can also notice from the table that there is low incident of the contribution from the teachers and advertisement. Hence, it seems teachers do not play a significant role in advising their students on dictionary use and the dictionaries less publicize. About 8.6% of the students specify that they got the dictionaries in the form of reward and gift.

Respondents were also asked to spell out whether they have the plan to buy dictionaries; and requested to write the kind of dictionary they want to buy along with reasons. Accordingly, 97 (92.4%) of the total students responded that they do have the plan. They provide various reasons such as to strengthen their knowledge of English language (those who planed to buy English-Tigrinya/ Tigrinya-English bilingual dictionaries), to develop their Tigrinya word power and write fiction (those who plan to buy monolingual dictionaries) and so forth. However, several respondents reply they want to buy non-Tigrinya dictionaries like Merit (English-Amharic dictionary), oxford dictionary, and so fourth. This indicates that the existing Tigrinya dictionaries are not satisfactory for every one of the respondents. The remaining 8 (7.6%) replied they do not have the plan to purchase due to various reasons like, they possess a dictionary, financial problems and some others do not consider the existing Tigrinya dictionaries are adequate for their needs, and the like.

Subsequently, respondents were asked to specify the main priorities they frequently give attention when they buy dictionaries. They were let free to indicate more than one of their priorities, if necessary. The responses are summarized in the table below.

Priority	Respondents	
	No	%
Number of words	54	51.4
Convenient to carry	21	20
Reputation of publisher	16	15.2
Hard cover	6	5.7
Low price	16	15.2
Number of examples	20	19.1
New words relevant to my need	55	52.4
Color cover	3	2.9
<b>Total</b>	<b>191</b>	<b>181.9</b>

**Table 48: Factors condition when purchasing a dictionary**

As illustrated in the table above, the priority for the majority of the respondents lies on the existence of new word and quantity/number of words, mobility, and adequacy of examples in the dictionary, respectively. Surprisingly, and different from what many of us might think to be, price is not a major criterion for the majority of the respondents. Similarly, cover and appearance of dictionary receives less priority.

However, this does not generally mean price is not taken as a major priority. For instance, in Hartmann's (1999) study the criterion of 'price' takes second place, next to 'number of words'. It is also interesting to note that users seem to give much priority to the quantity (number of words) than the quality (color, illustrations, and so forth).

The finding in the above table implies that dictionary compilers should give much consideration in including many new headwords as much as possible and the headwords need to be augmented with contextual examples. In other words, they should give much attention for content and the quality of their dictionary. Since users hardly take advantage of low price.

#### **3.2.2.4 Frequency of Dictionary Use/ Consultation (Question items 8 & 9)**

Studies on the frequency of dictionary use have come up with different findings. The findings by lexicographers such as Hatherau (1984), Knight (1994), and Wingate (2002) (all cited in Lew, 2004:17) show that frequency of dictionary use increases with ones level of proficiency. In contrary, other findings such as those by Atkins and Narantola

(1998a) and Tomaszczyk (1979) reveal that frequency of dictionary use decreases with the increment in level of proficiency.

As evidenced by Lew (2004:18), questions regarding the frequency of dictionary consultation are often asked in the context of reasons for dictionary look-up. This being the case, two questions were developed in order to elicit relevant data on dictionary consultation. The results are summarized in the table below:

Question items	alternatives	No of respondents	% of respondents
How frequently do you consult your dictionaries?	every day	20	19
	three/ four times a week	39	37.2
	once a week	21	20
	less often	7	6.7
	hardly ever	18	17.1
Which type of dictionary do you use most frequency?	bilingual	48	45.7
	monolingual	11	10.5
	trilingual	46	43.8

**Table 49: Frequency of dictionary use/ consultation**

Regarding frequency of consultation, 37.2 % (majority) the respondents replied they consult their dictionary *three to four times* a week, 20% *once a week*, and the like. This demonstrates that the majority of the respondents are not frequent dictionary users. Moreover, the above finding implies majority of students hardly take advantage of autonomous learning. In this regard, several lexicographers like Carter (1998), Piotrowski (1994), Winkler (2001), Heiki (2008) Roberts (1997), Meier (2003), Chi (2003), and so on, asserted the crucial role of dictionaries in autonomous language learning. Hence dictionary consultation should be developed as daily practice/habit and users need to develop familiarity with different types of dictionaries.

It is also apparent from the table above that bilingual (45.7%) and trilingual (43.8%) types of dictionaries are used most frequently than monolingual (10.5%) dictionaries by the respondents. The above findings are not compatible with the scenario where advanced learners are replacing bilingual dictionaries with monolinguals. For instance, as cited in Lew, (2004:21) several researchers like Baxter (1980), Béjoint (1981), Kharna (1985) and Tomaszczyk (1979) affirmed: "Monolingual dictionaries have been found to be more

highly regarded by users [advanced learners] than bilingual dictionaries.” In contrast, the above result suggest that advanced learners in Africa (multilingual) countries keep on using their bilingual dictionaries, and might prefer trilingual and multilingual dictionaries. Hence, it is not generally true if not impossible to conclude/generalize ‘the more advanced the level, the less the frequency of use bilingual dictionaries’ based on the research finding conducted in Europe and America.

Respondents were also asked to specify the types of dictionaries they frequently use. On the whole, it is found that some of the dictionaries under study (bilingual, and monolingual) are not commonly used. Instead, several students prefer to use other dictionaries like, Merit (Amharic-English dictionary), Mahder (English-Tigrinya dictionary and so on; which are not under the scope of the study. concerning, trilingual dictionaries, 43.8% specified SABA (English-Tigrinya- Amharic) dictionary.

### 3.2.2.5 Context of Dictionary Use (Question items 10 and 11)

With regard to context of dictionary use, nine choices were offered and produced the following results.

Question items, 19		alternatives	No of respondents	% of respondents
When do you frequently use a dictionary?	Task/ activity	When I came across a word whose meaning I do not know (read academy books...)	59	56.2
		translation work	39	37.1
		writing an assignment	35	33.3
		Read book for entertainment	11	10.5
		Read journals	10	9.5
		Read news paper and magazines	8	7.6
	place	studying at home	56	53.3
		studying in the library	17	16.2

**Table 50: Context of Dictionary Use**

As illustrated in the above table, 56.2% (majority) of the respondents use their dictionaries when they came across a word whose meaning they do not know. Principally, while reading academic text books, 53.3% during studying at home, 37.1% during translation work, 33.3% while writing an assignment, and so on. As stated in the above table, small

numbers of respondents (7.6%, 9.5% & 10.5%) use dictionaries when they read newspapers/ magazines, journals and books for entertainment respectively. This clearly shows that dictionary use associates with academic purposes. Although, users would have encourage deducing the meaning of a word from context, they need to have a dictionary to check difficult words, its pronunciation, labeling, and so forth.

Regarding the place, 56 (53.3%) of the respondents use dictionary while studying at home, small number of (16.2%) responded they use in library. This result can be due to the scarcity of the dictionaries in the library or it might be due to the fact that respondents prefer to study at home.

### 3.2.2.6 Aim for Looking up Words in Tigrinya Dictionary (Question item, 12)

Respondents were asked to tick from the alternatives about the aims/reasons for looking words in Tigrinya dictionary. They were allowed to indicate more than one of the reasons, where necessary. The following table shows results of the responses:

alternatives	Respondents	
	No	%
Spelling	32	30.5
Meaning (definition)	96	91.4
Derivatives and compounds	11	10.5
Collocations	10	9.5
Grammar	50	47.6
Pronunciation	22	21
Usage (examples)	11	10.5
Idioms	5	4.8
Etymology	-	-
Phrasal verbs	19	18.1
<b>Total</b>	<b>256</b>	<b>243.9</b>

**Table 51: Aim/reasons for looking up words in the dictionaries**

As shown in the table above, 91.4% of the respondents look-up words in Tigrinya dictionary for information for word meaning, 47.6% for grammar, 30.5% for spelling, and 21% for punctuations. On the other hand, etymology and idioms are rare aims for the respondents to look up in Tigrinya dictionaries.

As stated above, the major aim for the consultation was meaning. Several lexicographers like Atkins and Rundell (2008), Landau (2001), and so on asserted that users usually consult their dictionaries for word meaning. Therefore, it is possible to suggest from the above result that, dictionary compilers need to give much attention on the quality and clarity of information regarding definition, grammar, and spelling with considerable focus on others too.

### 3.2.2.7 Difficulties of Use (Question item 13)

In order to investigate the difficulties students face while looking up a word in Tigrinya dictionaries, about six alternatives were offered and answered as summarized in the table below:

Problems	Respondents	
	No	%
the word is not included	38	36.2
definition is not clear	35	33.3
examples are not helpful	21	20
cross-reference are not given	20	19
entry is not too long	8	7.6
word combination is not given	9	8.5
<b>Total</b>	<b>131</b>	<b>124.6</b>

**Table 52: Problems of use when looking up words in Tigrinya dictionaries**

As illustrated in the table above, 36.2% (majority) of the respondents mentioned that they frequently do not find words, 33.2% replied that definitions of words are not clear, 20% responded headwords lack clear examples, and 19% replied that appropriate cross-references are not provided. The remaining respondents replied that entry is too long, and word combination is missing in the dictionaries.

The above result indicates that, the selected dictionaries include limited number of words and they have problems in offering clear definitions of headwords. As shown in the table, the major problem respondents encountered was, that they did not find words they looked for. Secondly, students complained they were unable to understand definitions. Hence, the dictionary compilers need to incorporate several entries as much as possible and revise/ offer clear definitions.

### 3.2.2.8 Causes for difficulties in dictionary look up process (Question item 14)

Respondents were also asked to tick from the alternatives about causes that challenged them while looking-up words in Tigrinya dictionaries. The results are summarized in the table below:

<i>Response</i>	<i>Respondents</i>	
	<i>No.</i>	<i>%</i>
Lack of dictionary using skills	42	40
No clear users guide in the dictionary	22	21
No enough information is provided	30	28.6
Unclear layout of the dictionary	15	14.3
I don't read the instruction to the user	12	11.4

**Table 53: Causes of difficulties in dictionary use**

As stated in the table above, 40% of the respondents consider themselves as non effective users. Hence, the bulk of their difficulties were due to their own limitations. However, 63.8% of the respondents attributed the bulk of difficulties to the dictionary itself. In general, majority of the students believe that the problem is mainly due to the difficulties (low standard) of the dictionaries, and their own personal inexperience.

### 3.2.2.9 Training on Dictionary Use (Question items 15 & 16)

Respondents were also asked if they got the training on how to use dictionaries. In addition, they were asked to mention the place and length of time about the training, if any. Summary of the responses are presented in the table that follows:

<b>Response</b>	<b>Respondents</b>	
	<b>No</b>	<b>%</b>
Yes	20	19
No	85	81
<b>Total</b>	<b>105</b>	<b>100</b>

**Table 54: Training on dictionary use**

The table above tells us that 81% of the students responded that they did not take any training, and the remaining 19% students responded that they got a piece of advice/training from their teachers at high schools. As to the place and time length of the training, almost all (19%), those who replied they got some sort of training, replied that they took the training informally in the schools/classrooms by their teachers for hours

only. Furthermore, subjects were asked to reflect if such training was helpful for them. Their response shows that the training was helpful though it was not adequately offered in an organized manner.

Several lexicographers such as Landau (2001), Atkins and Rundell (2008), Lew (2004), and Hartmann (2003) and so forth, claim that dictionary use should be *taught* in an organized way at schools. However, the above results show us little has been done so far on teaching dictionary skills. Except some advice by personal initiated teachers, most of the students recommended that it is necessary to undertake training on Tigrinya dictionary use.

#### **3.2.2.10 Awareness/uses of Appendices and Users' Guidance (Question items 17 &18)**

As discussed earlier in the literature, the front and back matters of a dictionary contain extra but relevant information to the user. Mainly the style guide of a dictionary contains all the relevant points found in the middle matter. Hence, if users do not read it properly, they may not use effectively the information provided in the dictionary.

Literature tells us that users are mostly not effective in using the information given in the front and back matters of a dictionary. For instance, Bishop (1998) cited in Hartmann, (1999:28) found that students at Open University had used the front and back matter than students at secondary school. Moreover, Hartmann (1999:28) found foreign students at Exeter University were more aware of the back matter than native (English) students.

Therefore, in order to elicit data on the uses and awareness of the introduction and appendices of the Tigrinya dictionaries, respondents of this study were asked whether or not they use the information in the appendices of their Tigrinya dictionaries. The result of the questionnaire shows that 50 (47.6%) of the respondents use the information available in the appendices, and the rest 55 (52.4%) do not use it. Under this question item, respondents were requested to mention the type of information in the appendices they used. Except few, the majority of the respondents replied that they do not remember the information they used in the back matter/appendices of the dictionaries. This can be due to the fact that most of the existing Tigrinya dictionaries do not contain the back mater as discussed in the previous section.

Respondents were also asked to tick from the alternatives if they used the users' guidance. The result is summarized in the table below:

If you are aware of the users' guidance notes at the front/introduction part of the dictionary, do you...?	Respondents	
	No	%
Study them	24	22.9
Manage the dictionary without users' guide	34	32.4
Find them user-friendly	42	40
Find them less helpful	5	4.7
<b>Total</b>	<b>105</b>	<b>100</b>

**Table 55: Awareness and uses of the front matter of a dictionary**

The table above shows that about 40% of the respondents found the users' guide supportive; about 32.4% of the respondents replied that they do not use users' guide at all; about 22.9% of the respondents replied that they study the users' guide, and the remaining 4.8% replied that the users' guide are less helpful for them. Hence, the researcher suggests that much work is needed to create awareness regarding the advantage of reading the introductory part (users guide) of the dictionary. However, without reading the style guide of a dictionary it is difficult to use all the valuable information provided; because dictionary compiler can use different lists of symbols, abbreviations, labeling, and the like. This confirms that users need to read the front matter for effective usage and the compilers need to provide clear and short front matter.

#### **3.2.2.10. Skill of Use and satisfaction with Tigrinya dictionaries (Question items 19 & 20)**

The students were asked to share their own personal skills on dictionary use. The result indicates that 46 (43.8%) of the students regard themselves as efficient dictionary users while the rest 59 (56.2%) regard themselves as inefficient dictionary users. It is clear from this result that, unlike findings such as by Hartmann (1999:37), in which 90.6% of his subjects replied they were efficient and skillful dictionary users, the majority of the respondents in this study are not skillful dictionary users.

The respondents were also asked to support their answers with reasons. Some of those who regard themselves as efficient users replied that they can search words without any difficulty. On the other hand, some of the respondents, who regard themselves as inefficient dictionary users, mentioned some reasons such as lack of training, inadequacy

of the dictionaries, and personal problems such as lack of experience and practice in consulting various dictionaries.

The students were also asked whether they were generally satisfied with the qualities/standards of Tigrinya dictionaries. The result obtained from the questionnaire is summarized in the table below:

Respondents	Degree of satisfaction		
	Satisfied	unsatisfied	Neither Satisfied nor unsatisfied
No	28	43	32
%	26.5	41	30.5

**Table 56: Students' level of satisfaction with Tigrinya dictionaries**

The results show that 41% (the majority) of the subjects are not satisfied with the qualities of Tigrinya dictionaries. They pointed out various reasons such as limitations of the dictionaries in content, definition, and so on. While 26.5% responded they are satisfied, but they do not offer reasons. The remaining 30.5% responded that they are neither satisfied nor unsatisfied with the qualities of Tigrinya dictionaries; because they consider themselves as non-frequent users of Tigrinya dictionaries. On the space provided under this question, subjects mentioned several reasons that make them unsatisfied some of which are these:

- "Users do not buy and encourage professionals (compilers), and the like."
- "The writers (compilers) run for personal benefit than for the quality of their work"
- "The dictionaries are not fully adequate in providing adequate number of words, good definition, and so on."

### **3.2.2.11 Dictionary Effectiveness on the Users' Perspective (Question items, 21, 22 & 23)**

Subjects were also asked to tick from the alternatives about the types of information that they experienced/felt were missed in monolingual, bilingual, and trilingual Tigrinya dictionaries. They were requested to tick, if necessary, more than once from the alternatives provided. The results are summarized in the following table:

Types of information missed, or most difficult to find in:		No	%
In Monolingual Tigrinya dictionary	Spelling	10	9.5
	Meaning/ definition	32	30.5
	Derivatives and compounds	22	20.9
	Gemination Marker	10	9.5
	Users guide	13	12.4
	Pronunciation	17	16.2
	Usage (examples	18	17.1
	Idioms	9	8.6
	<b>Total</b>	<b>131</b>	<b>124.7</b>
In Bilingual Tigrinya dictionary	Most common words	22	21
	Definition is not clear (equivalents)	26	24.8
	Examples are not helpful	23	22
	Cross-reference are not given	22	21
	Entry is too long	10	9.5
	Word combination is not given	7	6.7
	Specialized technical terms are missing	21	20
	Nothing is missing	8	7.6
<b>Total</b>	<b>139</b>	<b>132.6</b>	
In Trilingual Tigrinya dictionary	Equivalents (definition)	27	25.7
	Important common words	34	32.4
	Grammatical information	10	9.5
	Pronunciation	15	14.3
	Derivatives and compounds	7	6.7
	Usage (examples in context)	29	27.6
	<b>Total</b>	<b>122</b>	<b>116.2</b>

**Table 57: Types of information missed /difficult to find in Tigrinya dictionary**

As is evidenced from the table above, the selected Tigrinya dictionaries lack appropriate definitions/equivalents, important common words and usages and so on.

It is clear from the table that semantic information is a crucial concern for majority of the respondents in all the three types of the dictionaries. One implication from the result shown above could be lexicographers/dictionary compilers need to give much emphasis on inclusion of adequate main entries, clarity of definitions, and precision of examples.

If we compare the results of the above Table with that of Table 8, the respondents are more aware of the weakness on definitions, content (number of entries) and lack of appropriate examples. All lexicographers such as Atkins and Rundell (2008), Landau (2001), Lew (2004b) and so on asserted that most users consult their dictionary for such purpose. This affirms dictionary compilers must give much care to such properties.

### 3.2.2.13 Level of Joy and Importance of Dictionary Use (Question items 24 & 25)

At this section of the students' questionnaire, respondents were asked for their opinion if Tigrinya dictionaries are enjoyable for use. In order to find out their reaction, different alternatives were offered under each question item. The table that follows shows the summary of the results.

Question item	Alternatives	Respondents	
		No	%
In your opinion, using Tigrinya monolingual dictionaries is...	Easy	21	20
	exciting/fun	11	10.5
	Difficult	20	19
	tedious/boring	10	9.5
	worthwhile/informative	15	14.3
	of little help	28	26.7
	<i>Total</i>	<i>105</i>	<i>100</i>
Using the Tigrinya-English or English-Tigrinya bilingual dictionaries help for:	Translation	44	41.9
	Reading	27	25.7
	Speaking	11	10.8
	improving writing	28	26.7
	English language learning	37	35.2
	provide little help for translation	9	8.6
	are not helpful at all	2	1.9
	<i>Total</i>	<i>158</i>	<i>150.8</i>

**Table 58: Views on use of Tigrinya dictionaries**

As stated in the table above, 26.7% (majority) of the students responded that the use of monolingual Tigrinya dictionary provides little help. It seems they are more concerned in bilingual dictionaries than monolingual dictionaries. This might be due to the fact that such dictionaries provide them with their mother tongue and they do not give much attention to monolingual dictionaries. Besides, 20% of the students responded that monolingual Tigrinya dictionaries are easy to use while 19% responded difficult to use. The difficulties could be due to the fact that all the monolingual dictionaries as stated before do not provide complete information. For instance, MTD does not offer clear definition, pictorial illustration; likewise LISANE AGAZI and NAS'LA lacks grammatical information, and so on (see details in 3.1). The overall result shows that the reaction by the majority is not positive to the standard of monolingual dictionaries.

With regard to the use of bilingual dictionaries, 41.9% of the subjects responded that the great value of such dictionaries is for translation, 35.2% for English language learning, and 26.7% for improving writing and reading though they do not satisfied with their qualities.

### **3.2.2.13 Open-ended Question (Question 26)**

Open-ended question was included with the intention of encouraging respondents to use their own words. Majority (83%) of the respondents took advantage of the opportunity to add some personal comments on the qualities of Tigrinya dictionaries and on the users themselves.

Many express their own experience with dictionary use and stress that teaching dictionary use is important for students. Various look-up difficulties are mentioned. Certain dictionaries are cited by name and suggested for revision. This includes LISANÄ-AGAZI, MTD and so forth. In general, the answer provided by the students can be summarized as follows:

#### **Users should:**

- use the dictionary properly and inform the compiler the weakness of the dictionaries and encourage them for farther work and improvement
- buy and use the dictionary, improve their skills on dictionary use, and
- dictionary use should be thought as a skill and the like

Similar repetitive answers were provided. Some students gave much emphasis on the scarcity of standard bilingual dictionaries in the language. For instance, one student replied: “There is scarcity of standard bilingual dictionaries that is why many students prefer to use other dictionaries like ‘Merit: English-Amharic Dictionary’, even though they are not competent in the other two languages”.

Moreover several respondents replied the following:

- Dictionary compilers should be professionals in the area, and they have to provide clear definition, examples in context, etc.
- They should not run only for money, they have to be concerned about the quality of their work.

- They should consider their users and accept comments
- They have to include new words and specialized technical terms.
- They need to consider dialect variation in their dictionary, and so on.

In general, the respondents suggested many things that the users and dictionary compilers should do in order to improve the standards and uses of Tigrinya dictionaries. One respondent worried about plagiarism in dictionary compilation. S/he replied “The dictionaries are copies of other preceding dictionaries; the compilers should avoid plagiarism.” On the whole, the respondents give several comments on the compilers than on their skills of dictionary use.

### **3.3: TEACHERS’ QUESTIONNAIRE ANALYSIS**

Corresponding to the students’ questionnaire, another questionnaire was developed for teachers. It aims at finding out more about the actual use of the Tigrinya dictionaries under study. This section presents a brief description and analysis of the data obtained on the teachers’ questionnaire.

#### **3.3.1. Background of the Respondents**

The intended teachers were requested to respond their personal details regarding gender, age, educational background, teaching experience, and so on. A summary of the results are presented in the table that follows:

Teachers' personal detail		N <sub>0</sub>	%
Gender	Male	10	100
	Female	-	-
	<b>Total</b>	<b>10</b>	<b>100</b>
Age	20-25	2	20
	26-31	3	30
	32-40	3	30
	41-50	2	20
	<b>Total</b>	<b>10</b>	<b>100</b>
Educational background	BA/BED	6	60
	MA	4	40
	PhD	-	-
	<b>Total</b>	<b>10</b>	<b>100</b>
Higher institution	AAU	4	40
	MU	6	60
	<b>Total</b>	<b>10</b>	<b>100</b>
Teaching subject	Tigrinya Linguistic	3	30
	Tigrinya Literature	3	30
	Tigrinya Translation	2	20
	Tigrinya Methodology	2	20
	<b>Total</b>	<b>10</b>	<b>100</b>
Teaching experience	Two years	7	70
	Three years	2	20
	Four years	-	-
	Five years	1	10
	<b>Total</b>	<b>10</b>	<b>100</b>
Teaching batch	First year	4	40
	Second year	3	30
	Third year	3	30
	<b>Total</b>	<b>10</b>	<b>100</b>

**Table 59: Teacher respondents' personal detail**

Respondents were asked to offer information about their gender, age, educational background, subject they teach, and teaching experience, higher institution, and the batch they teach. As indicated in the table above, all the respondents are male<sup>36</sup> aged 20 to 50. Moreover, 60% of the respondents are first degree holders, and the remaining 40% are second degree holders. Similarly, 60% of the respondents are from Mekelle University, and the rest 40% are from Addis Ababa University. With regard to their teaching experience, 70% of the respondents have two years teaching experience, 20% three years teaching experience, and 10% five years teaching experience

<sup>36</sup> Because, there is no female Tigrinya instructor in both Universities (AAU & MU)

### 3.3.2 General Questions

In the second section of the teacher's questionnaire, the respondents were asked to tick from the alternatives if they experienced/ faced shortage of standard Tigrinya dictionaries while teaching their courses.

They were asked to indicate, if necessary, more than one of the alternatives. The following table shows summary of the result obtained through the questionnaire.

Major problems encounter while teaching Tigrinya courses	No	%
Lack of standard Tigrinya-English/English- Tigrinya BLD	10	100
Lack of standard Tigrinya-Amharic/Amharic-Tigrinya BLD	3	30
Lack of Trilingual English-Tigrinya-Amharic dictionary	2	20
the students were not effective dictionary users	4	40

**Table 60: major problems teacher face in teaching of Tigrinya (translation) courses**

As evident from the table above, majority of the respondents faced shortage of standard English-Tigrinya/Tigrinya-English bilingual dictionaries mainly while they teach translation course. 40% of them replied their students were not effective dictionary users. From these results, it is likely that there is a gap both in dictionary using skills and standard of dictionary compilation. Hence, it is possible to assume this can have negative influence on the quality of education mainly in second and foreign language learning.

The teacher respondents were also asked to specify the kind of Tigrinya dictionary they frequently advise their students to use and to specify their main reasons. Respondents were allowed to choose, if necessary, more than one from the alternatives provided. The following table summarizes the results.

Respondents	Yes						No
	monolingual			Bilingual/Trilingual			
	NAS'LL A	LISANA- AG'AZI	MTD	MIRA S	LISA N	SABA	
No	2	7	1	5	1	2	20
%	20	70	10	50	10	20	

**Table 61: Response on preference about the use of Tigrinya dictionaries**

Among the 10 teacher respondents 8(80%) replied that they advise their students to use Tigrinya dictionaries, and 2 (20%) replied they do not advise, because they do not have

enough information about the dictionaries. About 70% of those who advise their students to use Tigrinya dictionaries prefer LISANE AGAZI for their students for its multiple examples, definitions and its accessibility in their libraries. 20% prefer NASLA for its idiomatic expressions and clear definitions, and 10% MTD for its availability in their libraries and incorporation of several entries.

Pertaining to the bilingual/trilingual Tigrinya dictionaries, about 50% of the respondents recommended MIRAS, 10% the LISAN, and 20% SABA dictionaries. For their suggestions on this point, respondents were also requested to provide reasons. Accordingly, some of the teachers state that these types of dictionaries help students to find equivalents in the languages the dictionaries deal with. However, many of them expressed their wishes that Tigrinya dictionaries could be helpful for students in the higher institutions if they are prepared up to the standard.

A follow up question was designed to be answered by those teachers who replied they advised their students to use Tigrinya dictionaries. The question was about what relevant information the teachers want their students to look for in the dictionaries. Seven choices were offered, more than one could be ticked, producing the following results.

	Respondents	
	No	%
clear definition	4	40
helpful examples in context	3	30
specialized technical terms	2	20
variants (dialects)	5	50
word-combination and derivations	2	20
important idioms and phrases	4	40
information about germination	3	30
frequent /common words	1	10
<b>Total:</b>	25	250

**Table 62: Response on relevant information to be gained in the dictionaries**

As illustrated above, the relevant information for the majority (50%) of the respondents is dialectical differences, while for the 40%, they are the definitions, idioms/phrases. Besides, for the nearly 30%, examples and geminations are more relevant that their students can gain in these dictionaries.

In the open ended question, respondents recommended LISANA-AG'AZI as a good source for definition and contextual examples, MTD for variant/dialect information and gemination, and Nas'lla for idioms and phrases. Pertaining to the bilingual dictionaries some respondents replied MIRAS can help to same extent. Others do not want their students to depend on such 'dictionaries.

This shows that users can not gain all relevant information in one dictionary; instead they have to consult different dictionaries for different pieces of information. It is therefore, possible to infer from the results above that there is no one comprehensive Tigrinya dictionary which can help the user to get complete information about the main entry.

Subjects were also asked to tick from the alternatives about the information they felt is missed in *bilingual/trilingual Tigrinya dictionaries* which they know. They were allowed to tick more than one, if required. The following table summarizes the results:

	No	%
Most common words	1	10
Clear definitions	1	10
Helpful examples	2	20
Short entries	-	-
Cross-references	2	20
Important idioms and phrases	4	40
Specialized technical terms	4	40
word-combination and derivations	4	40
Marked germinations	2	20
Important borrowed/loanwords	3	30

**Table 63: Relevant information missing in bilingual/trilingual dictionaries**

As shown in the table above, the majority (40%) of the teachers feel that specialized technical terms, and word-combinations and derivatives are missing. Moreover, about 30% of the respondents replied important idioms and examples are missing from the dictionaries.

In question items eight of the questionnaire, respondents were asked to provide the information they felt is missed in *trilingual Tigrinya dictionaries*. Except two, all of the

respondents replied that they do not use any trilingual dictionary; they usually manage their courses without using such types of dictionaries.

In order to elicit data about the teachers' opinion, on the use of Tigrinya dictionaries three questions were prepared and answered as in the table below.

Question item	alternative	Respondents	
		No	%
<i>In your opinion, using monolingual Tigrinya dictionaries is ....</i>	Easy	3	30
	Tedious/boring	-	-
	Exciting/fun	1	10
	Difficult	2	20
	of little help/not worth the trouble	4	40
	Total	10	100
<i>Based on your experience, using Tigrinya bilingual dictionaries help for--</i>	Translation	7	70
	Reading	2	20
	speaking	2	20
	Writing	3	30
	provide little help for translation	1	10
	English language learning	2	20
Total	17	170	
<i>Is it important for students in your subject to be taught how to use dictionaries?</i>	very important	8	80
	important	2	20
	not important	-	-
	I don't know	-	-
Total	10	100	
Have ever spent any time training your students in dictionary use?	yes	3	30
	No	7	70
	Total	10	100

**Table 64: Teachers' view on the uses of Tigrinya dictionary**

As displayed in the table above, 40% of the respondents replied that using monolingual Tigrinya dictionaries have little help, and 40% replied that such dictionaries are easy and exciting to use while 20% replied that it is difficult. On the other hand, 70% of the respondents replied that bilingual Tigrinya-English/English-Tigrinya dictionaries help for translation, 30% for writing, and 20% for reading, speaking, and for learning the English language. Although the respondents appreciate the benefits of bilingual dictionaries to learn basic skills of a foreign and a second language, most of them do not consider the existing dictionaries as adequate to the task of language study.

As displayed in the table, respondents were asked whether they see teaching students on how to use dictionaries is essential to help students better understand the subjects they teach. Thus, all of the respondents consider teaching students on how to use dictionaries as either very important or important.

The teacher respondents were also asked whether they had spent any time training their students in dictionary use. Accordingly, 70% of the respondents replied they did not, and the rest 30% replied that some times they give advice on dictionary use for their students in class.

Nevertheless, dictionary skills or training should be offered carefully and thoroughly like other skills. Regarding this, Atkins and Varantola (1998:115) argue:

We believe that dictionary skills must be taught, carefully and thoroughly, if users are to extract from their dictionaries the information which lexicographers have put into them. Teachers will be better able to carry out such teaching if they are fully aware of exactly what their students are doing with their dictionaries, what they expect from them, and how easily they are satisfied during the process of consultation. (Cited in Hartmann, 1999:29)

Finally, one open-ended question was included in the questionnaire with the intention to encourage respondents to add any other points they want to make about their experience with Tigrinya dictionaries.

The majority of the respondents question the qualities / standards of the existing Tigrinya dictionaries. Others question the skills of the students to use Tigrinya dictionaries. Some dictionaries such as NAS'LA and MTD are mentioned as lacking clear definitions, adequate examples, pictorial illustrations, etc. For instance one of the teacher respondents replied "The dictionaries have been compiled without prior consultation of experts and they are compiled by [individuals] who don't have an adequate knowledge of lexicography." The following are summaries of the teachers' recommendations extracted from the questionnaires:

**Users should:**

- Gain training in lexicography and have positive attitude towards the Tigrinya dictionaries and use them appropriately.
- they should be selective, check and re-check the appropriateness of the dictionaries in use.
- use the dictionaries and give comments for the compilers for further improvement.

**Compilers should:**

- first of all compilers must be professionals and should be trained lexicographers.
- they should accept gain comments from users.
- should make a need assessment/ consult dictionary users.
- know their users (children, adult, etc.); to specify the dictionary for a particular user.
- observe/identify the limitations of the earlier published dictionaries; see currently devised techniques of lexicography and should follow professional procedures.
- people think the word in a dictionary is 'generally correct', hence compilers must give much attention to the selection and definition of words, provision of examples, etc.
- consult experts in the area or professional scholars should prepare the dictionaries
- make continuous corrections/ revisions, add new words, ..I think dictionary making should be a continuous work.

**Table 65: summary of Teachers' recommendations on users and compilers**

In summary, the teachers' questionnaire analysis indicates that the existing Tigrinya dictionaries are considered inappropriate to the user. Besides, the students are considered not effective users. One teacher also questioned his own skill of dictionary use and replied "I never advise my student, how to use a dictionary since I am not effective user too".

### **3.4 COMPILERS' INTERVIEW DATA ANALYSIS**

As stated earlier, inline with the distribution, collection and analysis of the learner's, and teacher's questionnaires, personal interviews were made by the researcher with three of the four selected dictionary compilers. One who compiled two bilingual dictionaries and the other two who compiled monolingual dictionaries (one each).

In order to keep the time spent to a minimum and to ensure comparability of the results, semi-structured interview was employed. As already stated in chapter one, semi-structured interview is suitable to elicit important data and to let the interviewee concentrate on certain issues (see section 2.3). For this reason different open-ended questions were developed on the following four major themes: (i) interviewees background information, (ii) experience and skills in dictionary-making (iii) major challenges/ difficulties in the compilation process and (iv) adequacy of the content of their dictionary and finally the interviewees were let to add any other idea. In this section,

the recorded interviews are analyzed according to the four major theme questions stated above.

### 3.4.1 Interviewee's Background Information

Based on the information obtained from three dictionary compilers' interview, the following table summarizes their personal details.

item	Interviewees		
	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>
Gender	M	M	M
Age	66	50	35
Place of birth	Adwa	Adwa	Adwa
Educational background	Diploma	BA	MA
Higher education	Asmara University	AAU	AAU
Area of study/Qualification	TEFL	Amharic & Theology	TEFL
Working experience	40 yrs -teaching	11 yrs* - dictionary compilation	More than 7 yrs teaching

Table 66: Interviewee's Background Information

Key: yrs\* years, I<sub>1</sub>= interviewee one, I<sub>2</sub>= interviewee two, I<sub>3</sub>= interviewee three

### 3.4.2 Experience and Skills in Dictionary Compilation

At this section of the interview, the compilers were asked deferent questions related to their experience and skills of dictionary compilation. Initially they were asked when and why they were involved in dictionary compilation. Accordingly, two of the interviewees' (I<sub>1</sub> and I<sub>3</sub>) replied just to fill the gap. As teachers of Tigrinya, they faced with scarcity of dictionaries in the language and want to contribute. For instance one of the respondents (I<sub>3</sub>) said:

"It was in 1984 E.C, I came from Asmara--- I was assigned to teach Tigrinya when it became a language of education. There was scarcity of books and dictionaries. As a result I start writing the dictionary and published after four years."

Likewise I<sub>3</sub> replied as follows:

As a teacher, I got the chance to teach a course '*Introduction to Translation*' at Colleges and Universities (for Tigrinya minor/major) students. I face difficulties because of the absence/shortage of Tigrinya-English/ English-Tigrinya bilingual dictionaries. Moreover, when I give

tasks/assignments to my students, it was not easy for them to do the assignments because of the scarcity of bilingual dictionaries. These occurrences made me to involve in the dictionary compilation process...

Unlike to the compilers above, the second interviewee (I<sub>2</sub>) was involved in dictionary compilation as a result of his recruitment in 1975 E.C in the Ethiopian language research center to compile a Tigrinya monolingual dictionary (MTD). However, all the compilers did the task of compilation without getting any training or course in lexicography. Then, they were asked how they manage the planning, editing and publishing process of their dictionaries and their methods of data collection and selection entry, and so forth.

According to I<sub>1</sub> and I<sub>3</sub>, they collected data from dictionaries and other written materials. They also extend the data via derivation. Likewise, as to the response of I<sub>2</sub>, head words for MTD were collected from a variety of sources such as dictionaries, from the speech community, and the like. He (I<sub>2</sub>) said:

The organization (ELRC) had its own plan and two editors were assigned and edited the dictionary. The dictionary took about 12 years, and it is obvious that a good dictionary cannot be completed within a short period of time. The issue is our dictionary is not as standard as the budget and time it consumed.

As one can understand from the above response the interviewee (I<sub>2</sub>) was not satisfied with the standard of the dictionary. All the respondents agree that there is no professional lexicographer in the language. But two of the interviewees (I<sub>1</sub> & I<sub>2</sub>) consider themselves as experienced dictionary compilers. They say that had it not been for the financial problems, they would have done a good dictionary. For instance, one interviewee (I<sub>1</sub>) said "I can say I am an experienced dictionary compiler, and I can compile a standard dictionary, without exaggeration." I<sub>2</sub> replied at the compilation of the dictionary (MTD), he was a novice/amateur. But now through experience he considers himself as an experienced dictionary compiler.

On the other hand, I<sub>3</sub> does not consider himself as experienced lexicographer but he said he consulted different materials in lexicography and got adequate knowledge of dictionary compilation.

Moreover, the interviews were asked whether they had consulted others in editing and revising their dictionaries. I<sub>1</sub> and I<sub>3</sub> replied they had consulted their friends and

colleagues in the editing process. With regard to I<sub>2</sub> response, two experienced teachers were employed by the institution for editing and revising MTD. Nevertheless, all the interviewees confirmed that their editors were not professional lexicographers.

### 3.4.3 Major challenges/ difficulties in the compilation process

To compile a standard dictionary one has to know the principles and methods of lexicography and linguistics. As discussed in some detail in chapter two, if a lexicographer lacks knowledge micro-linguistics his pronunciation, syllable-structure, word class identification, definitions and so on, can be hampered. Besides, knowledge of macro-linguistics, such as the selection of standard dialects (sociolinguistics), field linguistics and so on are essentials. On the whole, the dictionary compiler should have basic knowledge of linguistics and lexicography.

The dictionary compilers were asked about the problems they encountered during their dictionary compilation. Two of the interviewees (I<sub>1</sub>, I<sub>3</sub>) recall many challenges on financial problems than linguistic and lexicographical problems. On the contrary I<sub>2</sub> replied the main challenge was lack of knowledge of linguistics and lexicography. He said:

The grate challenge was lack of knowledge of lexicography. We were told to collect several words, but we do not know, how to collect, what to collect and how the data can be displayed in to the dictionary.

This shows that there was a clear gap on both theoretical and practical lexicography. According to I<sub>2</sub>, the data for the dictionary were collected from different parts of Tigray and Eritrea. After the data were collected every body wants to include his/her own variety in the dictionary and this was a grate challenge for the compilers. I<sub>2</sub> replied as follows:

...another difficulty was in the selection of headwords for the dictionary entry. Everybody wants to include her/his own Variety. But it was difficult for us, if we used the Eritrean variety/dialect spoken in Asmara, this might not be appropriate for the Tigrinya speakers in Mekelle and vice versa.... Finally, after a grate debate, we agreed to depend on common/ familiar words used in the media like TV, newspaper etc....

This shows that there was methodological problem. According to Newell (1995), Bartholomew and Schoenhals (1983) and so on, the selection of the basic dialect(s) should come before data collection for a dictionary entry. Mainly, if a dictionary is planned to represent more than one dialect the project should begin with a systematic study of dialects of a language or at least there should be consensus which varieties need to include for the dictionary on the principle of wider use (See details in 3.1.3. 8. 3) However, it is impractical to include every variant forms as main entry in a dictionary as in MTD.

#### 4.4.4 Adequacy of the Content of their Dictionaries

The dictionary compilers were also asked to respond varieties of questions concerning the contents and adequacies of their dictionary as summarized in the table bellow.

item	Responses		
	<i>I<sub>1</sub></i>	<i>I<sub>2</sub></i>	<i>I<sub>3</sub></i>
4.1. Is the information provided in your dictionary adequate for the users? Please explain?	<i>No it is not fully adequate. Due to financial problems I forced to minimize it, consequently several important head words were missed.</i>	<i>Not adequate. But it can help for user.</i>	<i>I don't think my dictionaries are fully adequate. I do not include examples in context.</i>
4.2. Is your dictionary prepared for a particular user? Which group and level?	<i>For general purpose. It was prepared for all users.</i>	<i>General purpose-prepared for all users.</i>	<i>General purpose for all users.</i>
4.3. Did you consider your users need & skill while preparing your dictionary?	<i>No, just to tackle the problem it is clear, there was scarcity of dictionaries</i>	<i>No, we just know there was scarcity of dictionaries</i>	<i>No, but there was scarcity of bilingual dictionaries</i>
4.3. What particular information do you feel is missing in your dictionary? Why?	<i>Many things are missing; even I can't consider it as a dictionary. I had prepped it as Idioms of Tigrinya "Bihil Tigrinya". But one of the members from the Tigray educational bureau forced me to call it as a dictionary.</i>	<i>Many things are missing, for instance, picture, in some cases examples are not provided The layout of the dictionary is not attractive ....</i>	<i>I did not contextualize the entry with examples and cross-references are not included in the English-Tigrinya bilingual dictionary.</i>
4.5. Do you have a plan to revise your dictionary? What would you like to include or improve? Why?	<i>No, although, I want to improve my dictionary. I do not have money for publication, hence, if I get sponsor, I will improve is size, content etc...</i>	<i>Yes, there is a plan to improve its size, content, picture, etc. and to compile it as comprehensive monolingual dictionary by ELRC.</i>	<i>I have already started revising my dictionaries. I want to avoid the pronunciation forthe English entries written in Ethiopic script. Because these are not helpful for</i>

			<i>the users. Instead, I want to improve its content.....</i>
4.6. Do you think your dictionary is essential for college/university students?	<i>Yes, but depends on the level and skills of the students.</i>	<i>Yes, it can serve as a reference for any user.</i>	<i>Yes, definitely, they can use as reference; even my dictionaries were prepared for such purpose.</i>
5. In general, how satisfied are you with your skills of dictionary compilation? Why?	<i>I am neither satisfied nor dissatisfied. I can say, I am satisfied because I got real experiences on dictionary compilation. But, I am dissatisfied with financial problems to publish my work...</i>	<i>I am satisfied, I was always happy in the work, though it is repetitive, monotonous work ...</i>	<i>Satisfied, after a grate deal I got sponsor and publish my second dictionary.....</i>
6. Add any other points you want to make about your <u>experience with dictionaries making</u>	<i>There should be work-shops and seminars on lexicography so as we can learn more. We should worry about the language nor only a specific dialect/ variant...</i>	<i>Many things need to be done, work-shops and short training how to compile a dictionary...</i>	<i>Users need to use the dictionaries. There should be work-shops and seminars in the field of lexicography....</i>

**Table 67:** Adequacy of the Content of their Dictionaries

As clearly stated in the table above, the dictionary compilers do not regard their dictionaries as standard. In this chapter, an attempt is made to assess the standards and uses of the selected dictionaries both in the eyes of students, teachers and the compilers. On the whole, the findings/ results confirm that Tigrinya dictionaries are not satisfactory to be considered as standard. Rather, the majority of the participants replied they lack several qualities of a standard dictionary. Moreover, the results of the students' and teachers' questionnaire analysis asserted dictionary use should be thought at school. Students need more training and instruction in dictionary use.

## CHAPTER FOUR

### 4. CONCLUSION AND RECOMMENDATIONS

In this chapter an attempt is made to summarize the most important findings of the study and encompasses some recommendations by the researcher.

#### 4.1. Conclusion

This thesis attempts to address the major theoretical and practical problems in compiling and using Tigrinya dictionaries. It is divided into four chapters. The first chapter attempts to demonstrate the background of the study like the statement of the problem and this is followed by discussion on objectives of the study, research questions, and survey of related literature and significance of the study. It also provides the methodology and the variety of data collection techniques and the research samples that were employed.

The second chapter is also an introductory one, which makes a brief assessment of the current theories and practices of lexicography. It examines the various arguments, methods and branches on the theory of 'metalexicography' applied in this study by citing relevant examples from the existing literature. It mainly emphasizes on dictionary criticism and highlights the basic theoretical issues on dictionary history, typology, structure, use, criticism, computational lexicography and dictionary research as a multidisciplinary approach. The last section of this chapter then looks on the process of dictionary-making like, planning, writing and producing and their subdivisions. On the whole, it provides various key principles and appropriate techniques for describing and evaluating the qualities and uses of the dictionaries under study.

In the third chapter, the data collected from the dictionaries and from the respondents (students, instructors and compilers) are analyzed and interpreted. It includes four sections. While the first treats the data gained from the intended dictionaries, the second section presents the analysis of the data obtained from the students. In the third section, the analyses of the data obtained from the teachers are presented. Finally, the last section treats the data gained from compilers of the dictionaries.

With regard to the evaluation both, internal and external evaluation techniques were employed. While the external evaluation mainly focused on the front and back matter of the dictionary, the internal evaluation confined itself to the middle matter (Mega, Macro, Medio, and Access structure) of the dictionary proper. Various dictionary evaluation criteria were adopted from the existing literature in lexicography (Hartmann, 1999, 2003, Landau, 2001, Svensén, 1993, Jackson, 2002, Atkins and Rundell, 2008, etc.), and assess the effectiveness of the selected dictionaries.

Data were gathered from the dictionaries with the help of dictionary evaluation formats prepared for this purpose. The findings from the dictionary evaluation show that most of the selected dictionaries are incomplete. They lack several qualities of a standard dictionary. But this does not mean they are generally of no use.

There are many positive things to say about these dictionaries; LISANE-AGAZI, for instance contains clear layout, definition, examples and pictorial illustrations. The use of figures illustrating, is almost always specific to the point being made and seems a commendable category. But it does not contain any grammatical information, taboo words etc,. Likewise NAS'LA is found as rich source of idiomatic expressions, but the entries are not defined, no pictorial illustrations, no grammatical information and so on. In contrast, MTD has grammatical information, and includes dialect variants though they are not labeled. But this dictionary misses several properties of a standard dictionary. For example, it includes several ambiguous, circular definitions, no pictorial illustrations are given and includes inappropriate cross-referencing, and the like. It also lacks appropriate labeling. All the taboo words are written without labeling. No systematic treatment is made to the head word selection. All phonetic variants are included in the dictionary.

With regard to bi-/tri-lingual dictionaries akin to monolingual dictionaries summarized above, they fulfill some properties of a standard bilingual dictionary. LISAN includes selected pictorial illustrations, translation equivalent and the like. But it lacks several categories of a standard bilingual dictionary like examples in context, accurate English pronunciation guide, and so forth. Besides MIRAS includes derivatives, but no pictorial illustrations, no example in context, inappropriate cross-referencing is used and so on.

Moreover, SABA provides translation equivalent of three languages (English-Tigrinya-Amharic). Just like the above dictionaries it lacks several important categories/qualities such as, exact pronunciation, pictorial illustration, definition, and so on.

In general, when we examine the above dictionaries on the eyes of modern lexicography, all remain incomplete and insufficient. Especially with the principle of definition, cross-reference, MTD is the most substandard of all with full of ambiguous, circular definitions and low standard cross-referencing and the like.

Pertaining to the users' survey, a total of 26 questions were administered to be filled in by 105 students, and 16 questions to be filled in by teachers. The results show that the dictionaries are under utilized. The majority of the students and teachers consider these dictionaries as nonstandard. However, the students' questionnaire analysis shows that the bilingual dictionaries are more preferred than the monolingual dictionaries.

The results obtained from the compilers interview also shows that, all the authors have no relevant experience and training in dictionary compilation. On the whole, the outcome of the study suggests that the dictionaries need critical revision for improvements. In order to optimize the benefits to its users, dictionary skills need to be thought at school.

## 4.2. Recommendations

What recommendations can be drawn from this study? In the list below, recommendations of this study are given under two headings: (i) Recommendations for better dictionary compilations and (ii) Recommendations on raising dictionary awareness/dictionary use.

### (i). Recommendations for better Tigrinya dictionary compilation

Pertaining to dictionary compilation and production certain conditions have to be met:

- Initially, there should be lexicographic planning and sufficient funding.
- Then there should be professional training for lexicographers/dictionary compilers at university and college level in order to enhance the profiles and skills on lexicographical work.
- In the third place since there is a great need for bilingual dictionaries. A systematic cooperation between linguists and dictionary compilers and other specialists will be essential for better work and to develop pedagogically oriented dictionary.
- To achieve better dictionary production, there should be courses and/or degrees in lexicography, together with the use of dictionary making software tools, training on how to make use cuprous, electronic dictionaries etc. This can help to produce better dictionaries relatively within a short period of time than before.
- There should be trained/professional dictionary editors and evaluators who can comment on the dictionaries before they get published.
- Promote research into dictionary criticism / dictionary evaluation. And establish criteria for the evaluation of lexicographic products.
- Produce learner's dictionaries for each level (beginner, intermediate & advanced) uses.
- Bridge the gap between dictionary compilers and the user.
- The compilers should not run only for commercial-purpose, rather they should give more time, effort to produce scholarly-academic lexicography and in order to be able to compile a standard dictionary. Besides they should consult linguists/lexicographers for quality work.
- improve the qualities and standards of the compilation of Tigrinya mono-/bi- and tri-lingual dictionaries; develop more.

**(ii). Recommendations on raising 'dictionary awareness/ dictionary use'**

The recommendations listed below focus on the raising of dictionary awareness/ using skills. It must be pressure, that the mastery of dictionary skills should make available dictionary previously at primary and secondary school level, in the mother-tongue.

- First, there should be workshops and seminars on lexicography to make it better known to the public and raise public awareness on dictionary use at all levels; for language learners at schools, teacher training colleges and universities.
- Students should be made familiar with the value of dictionaries and other reference materials, including electronic dictionaries. Pedagogically oriented practice manuals/modules should be made available on how to use a dictionary.
- Stimulate dictionary awareness by making the teaching of reference skills integrating with language textbooks beginning from primary school level, and enhancing this at secondary school level with particular attention to bilingual dictionaries.
- Intensify/ promote research into dictionary use and dictionary evaluation.

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# Appendix I

Addis Ababa University  
Department of Linguistics  
School of Graduate Studies

## QUESTIONNAIRE FOR STUDENTS: Use of Tigrinya Dictionaries

The following questionnaire is part of the assessment on the effectiveness and uses of Tigrinya dictionaries at higher education institutions. It **aims** at finding out more about the actual use of these dictionaries. The outcome of the study should help to find ways of improving such dictionaries.

I would be very grateful if you could answer the following questions by filling in information or by ticking boxes where appropriate. **All your answers will be kept confidential** and used only for research purposes.

**Thank you** in advance for your contribution to this study!

**Note:** → no need to write your name

→ Where alternative answers are given, please mark your answer using tick-mark “√”

→ Choose/ specify more than one answer if appropriate

→ If the space is not enough to write your response, please use the back page of the questionnaire.

### Part one:

#### 1. Background information

1.1. Gender:  female  male

1.2. Age:  15-19.  20-25,  26-30  30+

1.3. Name of University:  Addis Ababa University (AAU)  
 Mekelle University (MU)

1.4. Major:  Tigrinya  Other specify \_\_\_\_\_

1.5. Minor:  English  Amharic,  Other specify \_\_\_\_\_

1.6. Please indicate which level of study you are in:

1<sup>st</sup> year  2<sup>nd</sup> year  3<sup>rd</sup> year  4<sup>th</sup> year

1.7. Mother tongue:  Tigrinya  Other specify \_\_\_\_\_

1.8. Second language that you know well (specify more than one if appropriate)



7. What is your priority when you BUY a dictionary? Please tick up to three criteria of the following list which you regard as being important for your choice.

- |  |   |
|--|---|
| <input type="checkbox"/> the number of words             | <input type="checkbox"/> a reasonable/low price               |
| <input type="checkbox"/> convenient to carry             | <input type="checkbox"/> the number of examples illustrations |
| <input type="checkbox"/> the reputation of the publisher | <input type="checkbox"/> its relevance to my needs            |
| <input type="checkbox"/> hard cover                      | <input type="checkbox"/> colored cover/e.g. black & white     |
| <input type="checkbox"/> Others specify _____            |   |

8. Which type(s) of dictionary do you USE most frequently?

- monolingual Tigrinya Dictionary
- bilingual Tigrinya- English Dictionary (specify)
- bilingual Tigrinya- Amharic Dictionary (specify)
- Trilingual (English-Tigrinya-Amharic-dictionary)
- Others (please specify) \_\_\_\_\_

9. How frequently do you consult your dictionaries?

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> every day   | <input type="checkbox"/> three/four times a week |
| <input type="checkbox"/> once a week | <input type="checkbox"/> less often              |
| <input type="checkbox"/> hardly ever |  |

10. When do you frequently use a dictionary?

- |   |   |
|---|---|
| <input type="checkbox"/> read academy books (When I came across a word whose meaning I do not know) |   |
| <input type="checkbox"/> during translation work  | <input type="checkbox"/> read news papers and magazines |
| <input type="checkbox"/> read a book for entertainment  | <input type="checkbox"/> during working an assignment   |
| <input type="checkbox"/> read journals  | <input type="checkbox"/> read newspapers and magazines  |
| <input type="checkbox"/> translation work   | <input type="checkbox"/> other (Please specify) _____   |

11. Do you use a dictionary frequently while ....

- studying at home
- studying in a library
- other (Please specify) \_\_\_\_\_

12. What are your main reasons for looking up a word in a dictionary? (Please tick up to three main reason of the following list which you regard as being important for you.)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> spelling                | <input type="checkbox"/> grammar               | <input type="checkbox"/> idioms        |
| <input type="checkbox"/> meaning (definition)    | <input type="checkbox"/> pronunciation         | <input type="checkbox"/> phrasal verbs |
| <input type="checkbox"/> derivatives & compounds | <input type="checkbox"/> usage (examples)      |  |
| <input type="checkbox"/> collocations            | <input type="checkbox"/> other(specify): _____ |  |

13. What kind of problems do you frequently encounter when looking up words in Tigrinya dictionaries?

- |   |  |
|---|--|
| <input type="checkbox"/> word is not there              |  |
| <input type="checkbox"/> definition is not clear        | <input type="checkbox"/> entry is too long             |
| <input type="checkbox"/> examples are not helpful       | <input type="checkbox"/> word-combination is not given |
| <input type="checkbox"/> cross-references are not given | <input type="checkbox"/> other(specify): _____         |

14. What do you think are the causes of these difficulties?

- |   |  |
|---|--|
| <input type="checkbox"/> my lack of dictionary use skills                     | <input type="checkbox"/> unclear layout of the dictionary          |
| <input type="checkbox"/> no clear users guide in the dictionary               | <input type="checkbox"/> I don't read the instructions to the user |
| <input type="checkbox"/> not enough information is provided in the dictionary |  |
| <input type="checkbox"/> other (Please specify) _____                         |  |

15. Have you had any training in using dictionaries?

yes

If yes, where: \_\_\_\_\_, how long: \_\_\_\_\_

no

16. If you were trained on how to use dictionaries, do you think the training helped you much?

no       Yes

How? \_\_\_\_\_

17. Do you ever use information contained in the appendices?

Yes       No

If yes what? \_\_\_\_\_

18. If you are aware of the user's guidance notes at the front of the dictionary, do you ..

- |  |  |
|--|--|
| <input type="checkbox"/> Study them          | <input type="checkbox"/> find them user-friendly |
| <input type="checkbox"/> Manage without them | <input type="checkbox"/> find them less helpful  |

other (Please specify) \_\_\_\_\_

19. Do you regard yourself as an efficient dictionary user?

yes       no

Reason: if yes \_\_\_\_\_ if no \_\_\_\_\_

20. Are you, on the whole, satisfied with the quality/standard of Tigrinya dictionaries?  Yes, very

satisfied  Yes, satisfied       unsatisfied

Neither satisfied nor dissatisfied

If unsatisfied, why? \_\_\_\_\_

21. What particular information do you feel is missing or not well presented in your **monolingual** dictionaries?

spelling

meaning (definition)

pronunciation

derivatives & compounds

usage (examples)

Gemination marker

idioms

Users guide

other(specify): \_\_\_\_\_

22. What particular information do you feel is missing or not well presented in your **bilingual**

Tigrinya dictionaries? (Choose more than one if appropriate)

Most common words are not there

Definition is not clear

entry is too long

Examples are not helpful

word-combination is not given

Cross-references are not given

specialized technical terms are missing

I do not feel any information is missing

(Others specify) \_\_\_\_\_

Please write the name of the dictionaries \_\_\_\_\_

23. What type of information is most difficult to find in the **trilingual** dictionaries?

Equivalents (clear definition)

grammatical information

Important common words

pronunciation

derivatives & compounds

usage (examples in context)

other(specify): \_\_\_\_\_



## Appendix II

Addis Ababa University  
Department of Linguistics  
School of Graduate Studies

### Questionnaire for Instructors

The following questionnaire is part of the assessment on the effectiveness and use of Tigrinya dictionaries at higher education institutions. It aims at finding out more about the actual use of these dictionaries mainly in Tigrinya course(s). The outcome of the study should help to find ways of improving such dictionaries.

I would be very grateful if you could answer the following questions by filling in information or by ticking boxes where appropriate. **All your answers will be kept confidential** and used only for research purposes.

Thank you in advance for your contribution to this study!

Note: → There is no need to write your name

- Where alternative answers are given, please mark your answer using tick-mark “√”
- Choose/ specify more than one answer if appropriate
- If the space is not enough to write your response please, use the back page of the questionnaire

#### Part one: Background information

- 1.1. Gender:  female  male
- 1.2. Age:  20-25  26-31,  32-40  40-50  50+
- 1.3. Educational background  BA/BED  MA  PhD
- 1.4. Name of your University:  Addis Ababa University (AAU)  
 Mekelle University (MU)
- 1.5. Subject you frequently teach  Tigrinya linguistics  Tigrinya literature  
 Tigrinya Translation  Tigrinya methodology  
 Other specify \_\_\_\_\_
- 1.6. How long have you taught Tigrinya?  
 2 years  3 years  4 years  5 years  -----

## Part two: General Questions

1. What major problems do you encounter while teaching Tigrinya courses? (Choose more than one if appropriate)
  - Lack of standard Tigrinya-English bilingual dictionary
  - Lack English-Tigrinya bilingual dictionary
  - Lack of standard Tigrinya-Amharic bilingual dictionary
  - Lack of standard Amharic-Tigrinya bilingual dictionary
  - Lack of Trilingual English-Tigrinya-Amharic dictionary
  - The students were not skilled/trained dictionary users
  - Others (please specify) \_\_\_\_\_
2. Do you advise your students to use Tigrinya dictionaries?
  - Yes always
  - yes sometimes
  - rarely
  - Not at all
3. If your response to item 3 is yes which **tri-/bilingual dictionary** do you frequently advise your students to use?
  - Lisan: English-Tigrinya Dictionary (by Dan'el Täxlu, 2008 E.C)
  - Miras: Tigrinya-English Dictionary (by Dan'el Täxlu, 2007 E.C)
  - Saba: English-Tigrinya-Amharic Dictionary (Rahel Yeshit'la, 1996 E.C)
  - English-Tigrigna Dictionary (by Uqbamicael Habtemariam, 1993)
  - I did not advice/want my students to use Tigrinya bi-/trilingual dictionaries
  - others (please specify) \_\_\_\_\_
- 4.1. Why? (Write your reasons here) \_\_\_\_\_
4. Which of the following **monolingual** Tigrinya dictionaries would you say is the best for your students to use?
  - Nas'lla: Mäzgäbä qälät Tigrinya (BY Gäbrä-Egziabher Bihon, 1987 E.C)
  - Mäzgäbä k'alat Təgrəñña bə-Təgrəñña (by the Ethiopian language academy, AAU)
  - Lisana Ag'azi Mäzgäbä qälät Tigrinya (by Girmatsion Mebrahatu, 1976 E.C)
  - Other (specify) \_\_\_\_\_
- 5.1 Why? (Please write your reasons here) \_\_\_\_\_

5. What adequate and relevant information do you think your students can gain in these Tigrinya dictionaries? (Choose more than one if appropriate)

- Clear definition
- Helpful examples in context
- Specialized technical terms
- Information about double consonants (germination)
- Frequent /common words
- (Others specify) \_\_\_\_\_
- relevant variants (dialects)
- word-combination and derivations
- important idioms and phrases
- I do not think any of this information

6. What particular information do you feel is missing in the Tigrinya bilingual dictionaries? (Choose more than one if appropriate)

- Most common words are not there
- Definition is not clear
- Examples are not helpful
- Cross-references are not given
- Important idioms and phrases not given
- I do not feel any information is missing
- (Others specify) \_\_\_\_\_
- (Please write the name of the dictionaries) \_\_\_\_\_
- information I need is not given
- entry is too long
- word-combination is not given
- Germination is not marked
- borrowed word not included
- specialized technical terms are missing

7. What particular information do you feel missing in the Tigrinya monolingual dictionaries?

8.1. What information needs improvement \_\_\_\_\_

8.2. Write the name of the dictionaries here \_\_\_\_\_

8. What particular information do you feel is missing in the Tigrinya trilingual dictionaries?

9. If there weren't good Tigrinya tri-/bi-lingual dictionaries how do you handle to the successful compilation the course? E.g. translation \_\_\_\_\_

10. In your opinion, using Tigrinya monolingual dictionary is ...

- easy
- tedious/boring
- difficult
- exciting/fun
- of little help/not worth the trouble
- worthwhile/informative

Why? \_\_\_\_\_

11. Based on your experience, which of the following statements do you agree with?

➤ using Tigrinya **bilingual** dictionaries(e.g. Tigrinya –English) help for:

- translation
- reading
- speaking
- provide little help for translation
- others (specify) \_\_\_\_\_
- writing
- English language learning
- is/are not helpful at all

12. Do you think it is important for students in to be trained/ taught how to use dictionaries?

- it is very important
- it is important
- it is not important
- I don't know

13. Have you ever spent any time training your students in dictionary use?

- yes
- No

If yes, how? \_\_\_\_\_

If no, why? \_\_\_\_\_

14. Do you think there is scarcity of standard Tigrinya dictionaries?

15. Are compilers of the dictionaries professional lexicographers?

- yes
- No

16. What possible solutions would you suggest for the improvement of Tigrinya dictionaries to make proper/suitable for higher education learners?

What should dictionary compilers do?

\_\_\_\_\_

What should user do?

\_\_\_\_\_

17. Add any other points you want to make about your experience with Tigrinya dictionaries.

\_\_\_\_\_

**Thank you again for taking the time to fill in this questionnaire.**

## Appendix III

Addis Ababa University  
Department of Linguistics  
School of Graduate Studies

### Interview questions for dictionary authors (Semi-structured interview)

The purpose of this interview is to collect data and conduct a study on the effectiveness and uses of Tigrinya dictionaries at higher education institutions. Its success largely depends on your earnest and sincere responses. You are therefore, kindly requested to respond my interview questions. All your responses will be kept confidential and used only for research purposes.

Thank you for your!

#### 1. Personal information

1.1. Name \_\_\_\_\_

1.2. Age \_\_\_\_\_

1.3. Place of birth \_\_\_\_\_

1.4. Educational background

i) High school \_\_\_\_\_

ii) Higher education \_\_\_\_\_

ii)  BA/BED  MA  PhD  other \_\_\_\_\_

1.6. Area of study/Qualification \_\_\_\_\_

1.7. Working experience \_\_\_\_\_

#### 2. Experience and skills in dictionary-making

2.1. When did you involve in dictionary compilation?

2.2. Why do you compile your dictionary?

2.3. Did you consult others while you compile your dictionary?

2.4. Have you made any dictionary evaluation / edition so far?

2.5. Have you had any training in lexicography or dictionary making? yes/no

→ If yes where? \_\_\_\_\_

→ How long? \_\_\_\_\_

- 2.6. If you were taught how to compile a dictionary, do you think this training helps you to further improve the quality of your dictionary? Explain?
- 2.7. How many dictionaries did you compile so far?
- 2.8. When did you start writing your first dictionary?
- 2.9. How did you manage the planning, editing and publishing process?
- 2.10. Was the dictionary compilation completed on your plan? If not why?
- 2.11. How did you collect data? From which sources?
- 2.12. How did you arrange/display the entries, definition etc (explain)?
- 2.13. Do you regard yourself as an efficient /professional dictionary compiler?  
 Yes                       No

Reason: \_\_\_\_\_

- 2.14. Who participated in editing and revising your dictionary?
- 2.15. Do you think your editors had adequate knowledge of lexicography?
- 2.16. How effective were your dictionary editors?  
 Very effective    fairly effective    effective    not at all effective

How? explain \_\_\_\_\_

### 3. Major challenges in the compilation process

- 3.1. What major problems do you encounter while preparing your dictionary?
  - a) lack of knowledge in lexicography
  - b) Lack of linguistic knowledge (e.g. lexical semantics)
  - c) Others specify? \_\_\_\_\_

3.2. How did you manage to the successful compilation of the dictionary?

### 4. Adequacy of the content of the dictionary

- 4.1. Do you think the information provided in your dictionary adequate for the users? Please explain?
- 4.2. Is your dictionary prepared for particular uses? Which group and level?
- 4.3. Did you consider your users need & skill while preparing your dictionary?
- 4.4. What particular information do you feel is missing in your dictionary? Why?
- 4.5. How do you include in the future if you have a plan to revise your dictionary?

- 4.6. Do you think your dictionaries are essential for higher education users, like in translation courses?
5. In general how satisfied are you with your skills of dictionary-compilation?
- Very satisfied     neither satisfied nor dissatisfied
- Satisfied         very dissatisfied
- Why?
- 

6. Add any other points you want to make about your experience with dictionaries making.

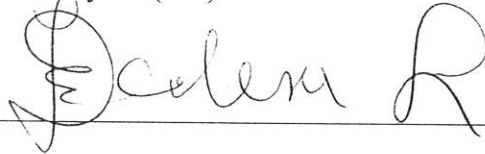
Thank you again for taking the time to respond my interview.

## Declaration

I, the undersigned, declare that this thesis has been submitted for examination with my approval as a University Advisor.

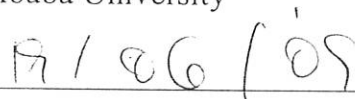
Name: Zelealem Leyew (Dr.)

Signature: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Zelealem R.', written over a horizontal line.

Place: Addis Ababa University


Date: \_\_\_\_\_

A handwritten date '17/06/09' written in black ink over a horizontal line.

## Declaration

I, the undersigned, declare that this thesis is my original work and that all sources of material used for the thesis have been duly acknowledged.

Name: Tsegay Muhur

Signature:  \_\_\_\_\_

Place: Addis Ababa University

Date: 18/06/2009 \_\_\_\_\_