

CHAPTER- ONE

INTROCUCTION

1.1 General Background

Language is a complex phenomenon. It is a voluntary vocal system of human communication which involves the transmission of information from a sender to a receiver. According to Wardhaugh (1986p.1), “a language is what the members of particular society speak”. The linguistic codes used in communication differ language from animal communication. Language is the composition of sound organization and meaning. Sharing thoughts, feelings, emotions, etc. are the features of language which represent the civilized nature of human.

Among the languages spoken in the world, the English language has been recognized as a widely used language for global communication and has played a greater role in international trade, technology, education, entertainment and other aspects of social life. Due to this fact, the demand of the English language is increasing rapidly. The developing countries like Nepal should depend on foreign technologies so the practice of the English language is most prominent factor in the world.

The English language is taken as the richest language in the world due to the richest vocabulary, literature, art, technologies etc. It is often called link language and lingua franca because of gaining the status of international language. It has significant influence in education system of each country and Nepal too. Remarkable number of books, newspapers, magazines, brochures,

recipes etc. are being published in English medium. It is offered as compulsory subject from primary to bachelor level. Most of the prescribed and reference books are available in English medium at university level.

1.1.1 Translation

The term translation is a bilingual activity which has been taking as the process of translating as well as the result of this. In a specific sense translating refers to a process or activity of rendering the message of one language into another, and translation as the product or result of this. But the term has been extended to refer to the rendering of message from one dialect, register or style to another dialect, register or style.

Translation has grown up as a full fledged discipline with translation history, translation criticism, translation technique, translation process, translation product, translation evaluation etc.

Catford (1965) defines the term translation as “the replacement of textual material in one language (SL) by equivalent textual material in another language (TL)” (p. 20). For him the theory of translation must, therefore, draw upon a theory of language. According to Newmark (1981) “translation is a craft consisting in the attempt to replace a written message and/or statement in one language by the same message and/or statement in another language” (p.7). Similarly Wilss (1982) defines translation as “a procedure which leads from a written SLT to an optionally equivalent TLT and requires the syntactic, semantic, stylistic and text-pragmatic comprehension by the translator of the original text” (p.112).

Translation is a process of changing speech or writing from one language into another language. The language from which we translate is called the ‘source language’ and language into which we translate is called the ‘target language’.

The translated work is also known as translation. Generally, there are two types of translation: 'literal' translation and 'free' translation. A translation that closely follows a word-to-word representation of the original one is known as literal translation. A translation, which provides the general meaning and intention of original but does not closely follow the grammar, style or organization of it, is known as 'free translation'.

The use of translation has become a part of modern life. Now, we have to use foreign books and products and export our own products. At this situation the knowledge of translation is quite essential. Now a day there is the growing interest of people in the field of translation. And it is needless to explain the value of translation in this twenty first century.

1.1.2 Technical Translation

Technical translation is one part of specialized translation; institutional translation, the area of politics, commerce, finance, government etc., is the other. Technical translation is taken as potentially (but far from actually) non-cultural, therefore 'universal'; the benefits of technology are not confined to one speech community. In principle, the terms should be translated; institutional translation is cultural (so in principle, the terms are transferred plus or minus) unless concerned with international organizations.

The profession of translator is co-extensive with the rise of technology, and staff translators in industry (not in international organizations) are usually called technical translators, although institutional and commercial terms are 'umbrella' (Dach) components in technical translation.

Technical translation is primarily distinguished from other forms of translation by terminology, although terminology usually only makes up about 5-10% of a text. Its characteristics and its grammatical features (for English, passives,

nominalizations, third persons, empty verbs, present tenses) merge with other varieties of language. Its characteristic format is the technical report, but it also includes instructions, manuals, notices, publicity, which put more emphasis on forms of address and use of the second person (Newmark, 1988, p.151).

1.1.3 Importance of Translation

It will not be exaggeration if we say translation is the key to world knowledge. In this twenty first century, the world is being shrunk with new scientific inventions and translation also has a great role in that. The value of translation is beyond description for the dissemination of knowledge.

According to Bhattarai (2000), “man, the only *homo loquens* known in this planet, possesses a unique capacity to use (speak, read and write) more than one languages. He is not only endowed to use different languages even at home, he can use different communication packages and systems. As a conscious being possessed with a vast treasure of knowledge accumulated through historical experience and stored in memory, he cannot simply remain ignorant of what lies beyond his space and time. Translation is the only key to this otherwise forbidden treasure-house” (p.10).

Emphasizing the value of translation, he further states that twentieth century employed translation extensively as most powerful and indispensable vehicle for disseminating knowledge and information. They say we are confronting today an age of ‘**TRANSLATE OR DIE**’ no third choice is left before us. Naturally every young language/literature is compelled to choose the medium

of translation for the fast enrichment of its treasure because creation is slow and time taking.

The main purpose of translation is to create spiritual and devotional unity among the various dialectal societies and individuals in both national and international level. Translation, on national level, weaves the various dialectal societies and people into one maxim to promote firm national unity, whereas, on international level, it helps to establish unity among the people for peace and harmony. Translation crosses and blurs the geographical boundaries as well as breaks the linguistic barrier and helps to find the base for universal brotherhood and friendship. Translation has its valuable use in the field of exchange of thoughts, opinions, feelings and ideas as a means of communication among the various dialectal communities. The exchange of thoughts, opinions feelings and ideas help to promote social behavior and tries to form a relation between them. In this way, translation has created ample of chances to interact between the two or more dialectal people and has made its dream of uniting human beings in one linguistic maxim come true. There are adequate store of both new and old written materials almost in every language of the world. In the past, the aim of translation was to spread the religious thoughts, opinions, feelings and ideas worldwide with the help of translating scriptures, but slowly and gradually it has been used in the creative writing as well as in the exchange of amusing literature. Today, it holds a wide scope in the exchange of knowledge, literature or with the view of exchanging classical writings. From this, the intellectual circle could easily achieve the literature or the scientific writings that has been possessed in the universal level through translation.

Thus, we know that the speakers of other languages without translation could not have tasted the great storage of knowledge stored in one language.

1.1.4 Translation Evaluation

One principle aim of Translation Studies is translation evaluation, equally subjective and difficult task like the translation itself. Different translation studies scholars have suggested different criteria such as back translation, self-evaluation, equivalent effects etc. Crystal (1987 cited in Phyak 2005) presents three ways of testing the quality of translation:

a) Back Translation: One translates a text from language A into B; a different translator turns the B text back into A, and the resulting A text is compared with the original A text. If the text is virtually identical, it is strong evidence than the original translation was of high quality (not incontrovertible because the second translator might have improved or worsened upon the work of the first in the reverse process).

b) Knowledge Testing: In knowledge testing, speakers of language B are tested about the contents of the translation and the same questions are put to speakers of language A. If the results correspond, the translation must be efficient.

c) Performance Testing: In performance testing, speakers of language A are asked to carry out actions based on the text as are of s speakers of A. The results can be compared to determine translation efficiency.

House (1994 cited in Phyak 2005 p.107) has classified approaches to evaluating translation into (i) anecdotal (ii) response based and (iii) text based types. Among them, anecdotal approach is widely used. In this highly subjective technique, such vague criteria as ‘faithfulness to the original’

‘preservation of the spirit of the source language’ are opposed to concentrating on a natural flow of the translated text and “pleasure and delight of the readers of the original” etc. The second approach, the response based approach, is not less subjective in which texts are compared and different tests are assigned. The concept of equivalent effect or dynamic equivalence or (equivalence of response) as proposed by Nida (1964 p. 162) exemplifies this approach. Similarly, the third approach, the text-based approach utilizes sociolinguistic and textual criteria, most of which are proposed tentatively.

Emphasizing the need for objective and scientific criteria of translation criticism, Wilss (1982 p. 220) presents the following tentative framework:

	Wrong	Inappropriate	Undecidable Cases	Correct	Appropriate
Syntax					
Semantics					
Pragmatics					

But he concedes that this practicable methodology for empirical studies intermingles descriptive and evaluative aspects of research and that translation criticism cannot be made more scientific than sensible. Nida (1964) also lists three important criteria to be used in judging translation: (1) the general efficiency of the communication process (2) comprehension of intent and (3) equivalence of effect. Furthermore Newmark (1998 p. 186) lists five translation criticism: (i) a brief analysis of the SL text stressing its intention and its functional aspects, (ii) the translator’s interpretation of the SL text’s purpose, his translation method and the translator’s likely readership, (iii) a selective but representative detailed comparison of the translation with the original, (iv) an evaluation of translation (a) in the translator’s term (b) in the critic’s term, and (v) where appropriate, an assessment of likely place of translation in the target language culture of discipline.

1.1.5 Requisites of a Translator

Translation is a profession, which deserves some qualities on the part of the profession holder. For the answer to the question ‘What are the requisites of a good translator?’ Bhattarai (2000) states that the answer is not direct, it poses a counter question: what is the area of his interest or profession? Or a translator of oral communication? For whom is he going to accomplish the task, with what purpose in mind? Such factors will delimit the qualifications of a translator.

A translation involves more than writing; the translator should qualify as a perfect reader, interpreter, mediator, thinker and communicator. Critics have rightly observed that the translator should be enough of a linguist and literary critic so that he is able to judge all the patterns of the original text.

The requisites of a translator by various scholars are as follows:

- a. A translator should be completely bilingual.
- b. A translator should be both bilingual and bicultural.
- c. Knowledge of pragmatics is essential for a translator.
- d. The knowledge of literary criticism is essential.
- e. The translator by all means should try to avoid bad translation and it is his own conscience that differentiates good from bad.

1.1.6 Translation Procedures

Translation procedure refers to the way how the process of translation done. Translation methods relate to the whole text but the translation procedures are used for sentences and the smaller units of language. ‘Literal translation’ and ‘sense translation’ are widely used procedures in the field

of translation. Newmark (1981, pp. 81-85) has presented the following procedures for translation:

a) Literal Translation: Literal translation is a close translation, which is often equated with word-for-word translation. Newmark believes literal translation to be the basic translation procedure. He distinguished literal translation from word-for-word translation and one-to-one translation. According to him, word-for-word translation transfers source language grammar and word order, as well the primary meanings of all the source language words, into the translation, and it is normally effective only for brief simple neutral sentences.

e.g. SL (English) white blood cell

TL (Nepali): seta rakta kos

b) Transference/borrowing: Transference is the process of transferring a source language word to a target language text as a procedure. It includes loan word or transliteration. In this procedure the translation uses the SL word for his TL text only changing the alphabet.

e.g. SL (English): Coat

TL (Nepali): कोट

c) Back Translation: In this procedure traditionally accepted foreign language terms in SL are translated back in same TL. In other words, one translates a text from language 'A' into language 'B' then a different translator translates the 'B' text back into 'A'.

e.g. SL (Nepali): isk 1

TL (English): School

e) Naturalization: This process succeeds transference and adopts the SL word first to the normal pronunciation, then to the normal morphology (word – forms) of the target language.

e.g. SL (English): Performance

TL (German): Performing

f) Cultural equivalent: This is an approximate translation where a SL cultural word is translated by a TL cultural word. Their translation uses are limited, since they are not accurate, but they can be used in general texts, publicity and propaganda, as well as for brief explanation to be readers who are ignorant of the relevant SL culture. They have a greater pragmatic impact than culturally neutral terms.

e.g. SL (English): church

TL (Nepali): mandir

g) Functional Equivalent: The common procedure, applied to cultural words, requires the use of a culture free word, sometimes with a new specific term; it therefore, neutralizes or generalizes the SL word; and sometimes adds a particular. This procedure, which is a cultural componential analysis, is the most accurate way of translating i.e. deculturalising a cultural word.

h) Pragmatic Equivalence: Context plays an important role in translation. Contextual meaning is always pragmatic meaning as it relates the context to the text. Sometimes a SL word is replaced by a TL word which is semantically quite different from the SL but provides closer rendering. In such a situation, translator has established the pragmatic equivalence.

e.g. SL (Nepali): Ram ta kag ho

TL (English): Ram is very clever.

i) Addition: Some addition in translation requires to make the translated text informative as well as readable. It needs to make readers understand the actual message of the text easily and with pleasure as well as to suit the text in target culture.

e.g. SL (Nepali): baya modnuhos

TL (English): please, turn left.

j) Deletion: If the information of the text can be translated without the presence of a particular word, the word is generally deleted in translation. It can also be done in absence of equivalence; but the meaning of the text should not be misinterpreted or left in the name of deletion.

e.g. SL (Nepali): cauda cauda nambarm phon garnuhos ra pr pta nirdesan
anus r ric rj garnuhos

TL (English): Dial the number 1414 and follow the instructions.

k) Substitution: SL items are substituted by equivalent TL items to overcome the translation gap. This technique is used mainly for those concepts which overlap to each other having similar sense. Translator should be aware of destroying the original flavor of both the SL text and culture.

e.g. SL (Nepali): naudne masi

TL (English): permanent ink

l) Sense Translation: Translator sometimes translates only the sense (not the word) of the text to transfer meaning. This technique is mostly applicable in translating proverbs and other cultural texts. If the structure is complex, words are redundant and translation of them misleads the meaning. It is suggested to translate the sense not the words/word groups.

e.g. SL (English): kick the bucket

TL (Nepali): marnu

m) Lexical Creation: Translator can coin new lexical item in target language to suit the meaning. It is the least significant technique as it greatly taxes the translator's ingenuity and the receiver's power of comprehension.

e.g. SL (English): internet

TL (Nepali): Antraj 1

n) Gloss/Notes: This technique enables the translator to provide additional information within the text as footnotes or at the end of the chapter.

o) Synonymy: If the precise equivalent word does not exist in the target language, then the near equivalent word has to be chosen. This procedure of translating is called the synonymy. This procedure is used for a SL word where there is no clear one-to-one equivalent, and the word is not important in the text.

e.g. SL: personne gentile.

TL: kind person

A synonym is only appropriate where literal translation is not possible and the word is not important enough for componential analysis. Here economy precedes accuracy.

p) Shifts or Transposition: A shift or transposition is a translation procedure involving a change in the grammar from SL to TL.

The change may be from singular to plural.

e.g. SL: furniture

TL: des meubles

A second type of shift is required when an SL grammatical structure does not exist in the TL.

1.1.7 Transliteration:

Transliteration means writing words of letters using letters of a different alphabet or language. Crystal (1985) mentioned that “Transliteration is a process in which each character of the source language is converted into character of the target language.” (p. 384). When an SL expression is converted into TL script the TL reader, who do not know the SL, can read the SL expression in TL script although without understanding it. Catford (1965) mentions that “In the process of actually transliterating a text, the transliterator replaces each SL letter or graphological unit by a TL letter, or other unit, on the basis of a conventionally established set of rules” (p.66). The transliteration rules specify transliteration equivalents which differ from translation equivalent. SL graphological units are replaced by TL graphological units but they are not related on the basis of relationship to the same graphic substance. The process of transliteration system involves three steps (ibid):

- I. SL letters are replaced by SL phonological units; this is the normal literate process of converting from the written to the spoken medium.
- II. The SL phonological units are translated into TL phonological units.
- III. The TL phonological units are converted into TL letters, or other graphological units.

Roman script, following Turner (1931), is usually used for transliteration. It includes all Nepali alphabets in Roman script with diacritic marks. Its purpose is to help the TL reader by giving equivalent sound system of the SL. For example,

SL	Transliteration	TL
रिचार्ज गर्ने तरिका	ric rj garne tarik	Recharge procedure
उद्योग सञ्चालन सम्बन्धी सर्तहरू	udhyog sanc lan sambandhi sartharu	Condition for industry

1.1.8 Translation Shifts

Translation is an interaction between source language and target language. The job of translator is to search equivalence between two linguistic systems. There are many factors which create problems in establishing equivalence. In the process of translation there will be loss as well as gain where the concept of loss and gain are to be viewed in a broader perspective. In the production of the SL text there will be loss when the author moves from experience and thought to immediate expression and in translating a text there will be further loss; but a resourceful translator compensates for the loss through gains in the process of reproduction through 'shifts'. We know two languages are not identical that makes 'shift' an obligatory phenomenon in any translation activity.

1.1.9 Types of Sentence

Sentences are classified on the basis of their form and function.

On the basis of grammatical function, sentences are classified as:

i) Declarative sentence: A declarative sentence makes a statement or assertion.

It is also known as statement sentence. For example,

He is a teacher.

ii) Imperative sentence: An imperative sentence makes commands and request. Usually its subject is hidden. For example,

Go there. (You go there)

iii) Interrogative sentence: An interrogative sentence asks question. They are of two types: yes/ no question and wh-question. In speech yes/no questions are marked with a rising tone and their answers can be given either in yes or no.

Both the yes/no and wh-question require a question mark (?) in the written form.

For example,

Are you coming with me? - yes/no question

Where are you from? - wh- question

iv) Optative Sentence: An optative sentence expresses the desire and mood of the speaker. For example,

We should preserve our culture.

v) Exclamatory Sentence: An exclamatory sentence expresses surprise, alarm, pain, indignation and strong opinion. It is an emotional utterance which usually lacks the grammatical full sentence and is marked with strong intonation. For example,

My goodness! (Surprise)

Formally, sentences are classified as-

i) Simple Sentences: A simple sentence contains only one clause and a finite verb. However, the finite verb may be composed of some auxiliaries followed by a head verb.

For example,

He died.

ii) Compound Sentence: A compound sentence is composed of two or more simple sentences joined by such coordinate conjunctions as 'and', 'but', 'or', 'so', etc. For example,

He worked hard and passed the exam.

iii) Complex Sentences: A complex sentence is composed of one main clause and one or more subordinate clauses. For example,

The king left the throne after his queen died because he lost interest in everything.

1.2 Review of the Related Literature

Although many numbers of researches have been carried out on translation field in the Department of English Education, no research has yet been carried out on Translation of Technical Text to find out the procedures and structural shifts in translating the technical text. So, I am interested to select this very topic on my study.

Bhattarai (1997) in his Ph.D.thesis entitled. '*In Other Words Sense Versus Words as a Unit of Literary Translation (with special reference to Nepali-English poetic texts)*' has made an attempt to define translation process and product of translation of traffic between Nepali-English language pair in

particular. He has found growing interest of people in bi-directional and horizontal translation. He also states that interest in and awareness towards literary translation is growing.

Adhikari (2005) carried out a research '*On Proficiency of Bachelor level Students in Translating Nepali Ttext into English*' to examine the proficiency of the students in terms of their sex, native language and the faculty they are studying in and concluded that the average level of written proficiency of the students of Humanities and Education faculty in translation is 46.76, the boys are found to be more proficient than the girls, the Non-Nepali native speakers are ahead of Nepali native speakers, the students of Education Faculty are ahead of the students of Humanities Faculty.

Adhikari (2003) carried out a study on '*The Translation of Technical Terms: A Case of Textbook for Science.*' He collected 200 English scientific terms, 50 terms each from physics, chemistry, biology, and geology and astronomy and their Nepali translation. He found six types of techniques for translation of scientific terms. He concluded the problem lies in translation when a TL text lacks an equivalent term that is present in SL text.

Wagle (2004) carried out a research on '*Multiple Translation of Muna Madan From Cultural Perspective.* He has collected original and translated versions of Muna-Madan. He has collected and calculated cultural words in the original and translated versions and analyzed them. He has analyzed translation of each cultural words in terms of meaning, faithfulness to the original, transfer of message etc .He found eighteen different techniques used. He found that literal translation most widely used, transference the most faithful technique, deletion the bad one and elaboration is helpful. The study showed cultural equivalence is faithful to TL culture.

Singh (2004), carried out a research to find out the '*Techniques and Gaps in Translation of Cultural Terms in Case of the Nepali and English Versions of our Social Studies for Grade Eight*'. He collected 220 cultural terms and divided them into five categories. He found that borrowing, substitution and paraphrasing are common techniques. He found that there are a number of gaps in translation of cultural terms due to the various reasons; e.g. lack of conceptual accuracy, lack of cultural equivalence, lack of lexical items, etc.

Karki (2006), carried out a research on '*Translation Evaluation: A Case of Back Translation*' to analyze a translation evaluation technique, back translation. Three different types of texts i.e. literary, cultural and scientific are analyzed to find out its reliability. The English texts are translated into Nepali and back translated. It also aimed to compare the appropriacy in translation of the texts linguistically with the transformation of meaning. Back translation is found as a good technique to evaluate although it has some limitations. Scientific text is virtually identical to its original and cultural least and competence of translator, time, and consulting materials are the variables to affect the quality of translation.

Panthi(2007), carried out a research on '*The Techniques and Gaps in Translation of Cultural Terms; A Case of the Novel SHIRISHKO PHOOL*' to evaluate the techniques of translation of cultural words and to find out the gaps. The data for the study were collected from both Nepali and English version of the novel. The data consists of 150 cultural terms with focus on translational gaps. He found that eight different techniques are found to have been employed in translating cultural words of the novel. There are many instances of use of non-corresponding meaning components, which lead gaps in translation.

Rimal (2008) carried out a research entitled '*Analysis of Translational shift and strategies used in Translating Culture in the Drama 'Masan'*' to analyze

translational shift and strategies from cultural perspective. To accomplish the objectives of the study, he extracted the data from a Nepali translated version of the drama 'Masan' and its English version (cremation ground). The study shows that eighteen different techniques are found to have been employed in translating cultural words of the drama. This study also concludes that among the procedures, the best translation method seems to be the one which allows translator to utilize 'notes'.

All the research works mentioned above are related to translation and translation evaluation. Some of them are related to scientific terms, some are related to literal terms and some are related to cultural terms. But my study is entirely different from the rest in the sense that no research has been carried out on technical text to find out the procedures and structural shifts on technical translation.

1.3 Objectives of the Study

The study had the following objectives:

- a. To find out the procedures employed in the translation of technical terms.
- b. To find out the structural shifts in translating the technical text.
- c. To suggest some pedagogical implications.

1.4 Significance of the Study

This study will be useful for prospective researchers who want to undertake researches in translation area. It will also be significant to English medium textbook writers who have to deal with technical terms and teachers who teach English in Nepal. And all the people who are, directly or indirectly involved in translation field will be benefited from the study.

CHAPTER-TWO

METHODOLOGY

The term ‘methodology’ in research, according to Richard et al. (1986) refer to “the procedures used in carrying out and investigation, including the methods used to collect and analyze data” (p.229). In this study too, methodology refers to all the activities used for the collection of data.

The following methodology will be adopted to fulfill the above mentioned objectives:

2.1 Sources of Data

The data in this research were collected only from the secondary sources.

2.1.1 Secondary Sources of Data

In this research, I collected the data only from the secondary sources.

The secondary sources of data for the present study were both Nepali and English versions of the technical texts. I have also and studied the books Catford (1965), Newmark(1981) Newmark (1988), Nunan (1992), Bhattarai (2000) etc., theses, articles, journals, dictionaries which are related to the present research work.

2.2 Sampling Procedure

Eighty technical terms were selected from the original version of technical texts (ricarj garne tarika, ec.ai.vi./eds bata bacne upayaharu, udhyog sancalan sambandhi sartharu, and rahadani sambandhi janakari) along with their equivalent terms from the translated version of the technical texts using non-random sampling procedure.

2.3 Tools of Data Collection

For this study observation was used as a research tool for data collection. I read and re-read the original and the translated version of the technical text to get required information.

2.4 Process of Data Collection

The stepwise procedures that I followed in carrying out this research are described in the following points:

- a) I collected Nepali (original) and English (translated) version of the technical texts.
- b) I went through the texts and underlined the technical terms in Nepali version of the texts.
- c) I also read the English version of technical text to find the equivalences of those technical terms.
- d) I collected 80 Nepali technical terms from the texts by using non-random sampling procedure.
- e) I transliterated each equivalent SL terms into Roman script.
- f) I identified the procedures of translation and listed the technical terms under different procedures. I calculated the frequencies of the different procedures used in translation of technical terms for each type and analyzed.
- g) I observed the structures of both original and translated versions of the technical texts.

- h) I listed all the structures of the original text and all the structures of the translated text separately. Then I found out the shifted structures.

2.5 Limitations of the Study

The study had the following limitations:

1. The study was limited to the technical text only.
2. The study was limited to find out the procedures employed in translation of technical terms.
3. The study was limited to only 80 technical terms.
4. The study was limited only to the structural shift only.
5. The translation was from Nepali to English only.

CHAPTER -THREE

PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter is developed to the analysis and interpretation of the data collected from the Nepali and English versions of four technical texts. The data is collected by using the tool observation and non-random sampling procedure. It is presented, analyzed and interpreted by using table, charts and diagram. In this chapter, I have tried to analyze the procedures and structural shifts which are used in translation of technical text.

3.1 Procedures used in the Translation of Technical Terms

The main procedures, which are used in the translation of the selected technical terms, are as follows:

1. Literal translation
2. Substitution
3. Deletion
4. Addition
5. Back Translation
6. Borrowing
7. Blending

D) Literal Translation: This is the first mostly used procedure(50%) found in technical translation. It is source language oriented translation that searches for close correspondence of meaning between SLT and TLT. The target language translates the source language term item by item reflecting its primary meaning. If the primary meaning differs, the literal translation works no more. It ranges from word to word level up to sentence to sentence level. But my concern here is to observe technical terms at word level. Some examples of literal translation used in translation of technical terms are given below:

S.N.	SL Terms	TL Terms
1.	tarik	procedure
2.	swik r	accept
3.	b lak	child
4.	swikriti	permission
5.	bibh g	department
6.	aru	other
7.	parikchyan	test
8.	nāgarik	citizen
9.	j ri	issued

II) Substitution: This is the second mostly used procedure in technical translation which has the percentage of 23.75. This procedure is used when the SL term has similar or approximate equivalent terms in TL. In this case the TL offers a natural expression for its own technical element that partly coincides with the source technical element. Some examples of substitution used in the translation of technical terms are given below:

S.N.	SL term	TL term
1.	chopeko bh g	Shaded area
2.	Samay badhi	Validity
3.	pirmark	Disturbance
4.	k rya garnuparne cha	Run the industry
5.	Sui	Needle
6.	R had ni	Bearer
7.	Arkor had ni	New passport
8.	utp dit bastu	Product
9.	srin n srimati	Spouse

III) Back Translation: This is the third mostly used procedure in technical translation which was 8.75%. In this procedure traditionally accepted foreign language terms in SL are translated back in same TL. Some examples of back translation of technical terms are given below.

S.N.	SL Terms	TL Terms
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1.	ric rj nambar	Recharge number
2.	Phon	Phone
3.	pri-ped	Pre-paid
4.	sim k rd	SIM card
5.	S inbord	Sign board
6.	rajistreson nambar	Registration number
7.	Sipht	Shift

IV) Deletion: Deletion is the fourth mostly used procedure in technical translation which was 7.5%. In this procedure of translation SL term is omitted in the TL text. Deletion occurs when the exact SL equivalent term is not found in TL or the expression is meaningless to be translated or the terms are redundant to be translated. Some examples of deletion in technical translation are given below:

S.N.	SL Terms	TL Terms
1.	k lo masi	-----
2.	.ric rj pachi	-----
3.	prakriy ko nimitta	-----
4.	anib rya rupam	-----
5.	udhyogako k mam	-----
6.	bikri bitaran	-----

V) Addition: Addition is the fifth mostly used procedure in technical translation which was 5%. In this procedure some terms are added in the TL text to make the receiver understand implicit SL technical informative items explicitly. Some examples of addition used in technical translation are given below:

S.N.	SL Terms	TL Terms
1.	th h pāunuhos	Listen and conform
2.	pharm ko py d	Letter pad of form

3.	parikchyan gari	Only after test
4.	j rigariyeko miti dekhi	The original date of issue

VI) Blending: Blending is the second least used procedure in technical translation which was 3.75%. In this procedure the single term of SL is translated with the combination techniques i.e. often a phrase. Some examples of blending used in technical translation is given below:

S.N.	SL Terms	TL Terms
1.	kredit rakam	Credit balance
2.	r tri siph	Night shift
3.	nep li n garik	Nepalese citizen

VII) Borrowing: This is the least used procedure in technical translation which was 1.25%. In this procedure SL terms borrowed into TL through translation process. It is used only if the equivalent term is absent in the target language. Example of borrowing in technical translation is given below:

S.N.	SL Terms	TL Terms
1.	nep li	Nepali

Table No. 1 Frequency of the Procedures used in Translation of Technical Terms

S.N.	Procedures	Frequency	Percentage
1.	Literal Translation	40	50%
2.	Substitution	19	23.75%
3.	Back Translation	7	8.75%
4.	Deletion	6	7.5%
5.	Addition	4	5%
6.	Blending	3	3.75%
7.	Borrowing	1	1.25%

Figure No. 1 Percentage of Procedures Used in Translation of Technical Text

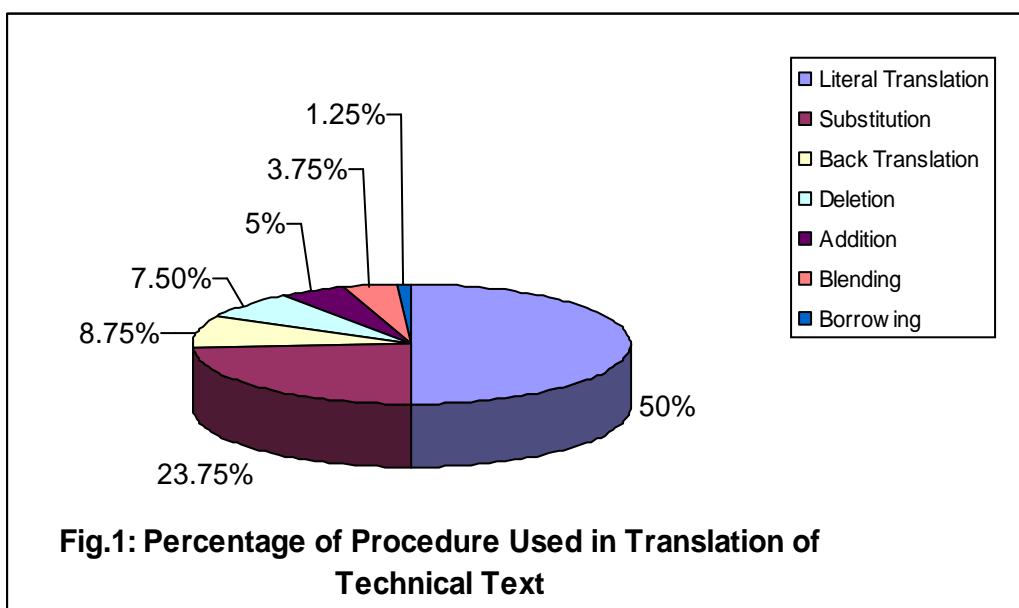


Table No.1 shows that eighty technical terms are taken for the study data. There are seven different procedures found to be employed in translated version of technical texts. Among the seven different procedures, Literal translation is the mostly used which was 50% and Borrowing is the least used procedure i.e., 1.25%. Substitution is the second widely used procedure. In terms of descending order of frequency, the procedures of translation of technical terms can be graded as Literal translation (50%), Substitution (23.75%), Back translation (8.75%), Deletion (7.5%), Addition (5%), Blending (3.75%), and Borrowing (1.25%).

3.2 Shifts in Technical Translation

Nepali version of the technical texts 'ric rj garne tarik ', 'udhyog sanc lan sambhandhi sartharu', 'r had ni sambandhi j nak ri', 'ec. i. vi./ eds b ta bacne up ya haru' are the source texts (ST) of the study and the English versions of the given texts are the target texts (TT). In translation, there is often a shift in number of sentences, structures of sentences, meaning and so on. Since two languages are always different, shift is natural in translation of any text. I have

analyzed the structural shift of the technical text on the basis of the following different criteria.

3.2.1 Formal Shifts of Sentences

In translation, there is often a shift in number of sentences, structures of sentences, meaning and so on.

Table No. 2: Formal shifts

Number of sentences	ST	TT	Shift	Percentage
Simple Sentences	12	10	2	20%
Compound Sentences	8	6	2	33.33%
Complex Sentences	2	6	4	200%

3.2.1.1 Simple Sentence:

The number of simple sentences is greater in the ST than TT. The number of simple sentence is 12 in ST whereas it is 10 in TT and which is less by 2 numbers. It is shifted by 20%. An example of translation of simple sentence into compound sentence is given below:

ST: ec. i.vi/eds sankrimit dampati bicm youn sampark nar khaun

TT: No sexual relationship should be established between husband and wife infected with HIV/AIDS.

3.2.1.2Compound Sentence:

The number of compound sentences is greater in ST than TT. It is greater by 33.33%. The number of compound sentences found in ST is 8 whereas it is 6 in TT. Two sentences are shifts. The shift of compound sentences is higher than simple sentences. An example of translation of compound sentence into complex sentence is given below:

ST: phno kredit rakam ra samaya abadhi th h p unuhos

TT: After recharge, confirm your new account credit balance and validity.

3.2.1.3Complex Sentence:

The number of complex sentences is greater in TT than in ST. There are only 2 complex sentences in ST but TT has 6 complex sentences which is shift by 200%. Among three types of sentences maximum shift is found in complex sentences than others. An example of translation of compound sentence into complex sentence is given below:

ST: ragat ra anga parikchyan gari ec. i.vi/ eds le sankraman nabhayek byakti
b ta line garaun

TT: Transformation of blood and transplanted organs is to be done only after test.

The Table No 2 reveals the fact that the number of simple sentences is fewer by 20% in the TT than in the ST. But surprisingly, the number of complex sentences in the TT is greater by 200% than in the ST, whereas the number of compound sentences in the ST is greater by 33.33% than in the TT.

The difference between the language pair and the use of non-corresponding components of sentence structures bring difference in the number and type of sentences. Due to the complexity of ST structures and for the natural flow of translation, the translator at time has broken a single sentence into two or more sentences and vice versa.

Though the instances of breaking up and joining of sentence structures were remarkably high in translation, the translator maintained the formal equivalence

of the ST even though semantic equivalence has been maintained. To a great extent, the TT formal features resemble the ST formal features.

3.2.2 Functional Shifts of Sentences

The functions of sentences used both in ST and TT are classified on the basis of their types- assertive, interrogative, imperative, explanatory and optative. Among the sentences assertive sentences are highest in number in ST in technical translation.

Table No. 3: Functional Shifts

Number of sentences	ST	TT	Shift	Percentage
Assertive sentences	13	10	3	30%
Interrogative sentences	0	0	0	0%
Imperative sentences	9	12	3	33.33%
Exclamatory sentences	0	0	0	0%
Optative sentences	0	0	0	0%

The above table shows that among the sentences the number of assertive sentences was higher in ST and lower in TT whereas the number of imperative sentences was higher in TT and lower in ST. The shift of assertive sentences was found 30% and the shift of imperative sentences was found 33.33%. It reveals that the shift of imperative sentences was higher than assertive sentences. Examples of translation of assertive sentence into imperative and imperative sentence into assertive are given below.

ST: kacc pad rtha swoyam bewasth garnu parne cha

TT: Manage oneself the raw materials.

ST: ragat ra anga parikchyan gari ec. i.vi/ eds le sankraman nabhayek byakti b ta line garaun

TT: Transformation of blood and transplanted organs is to be done only after test.

3.2.3 Shifts of Grammatical Aspects

I have also made an attempt to see the shifts on grammatical aspects. The number of active sentences is found the highest whereas affirmative sentences are the second highest. The shift in passive voice is found the highest (125%) whereas no shift is found in affirmative and negative sentences in technical translation.

Table No. 4: Shift of Grammatical Aspects

Number of sentences	ST	TT	Shift	Percentage
Active sentences	18	13	5	38.46%
Passive sentences	4	9	5	125%
Affirmative sentences	17	17	0	0%
Negative sentences	5	5	0	0%

The shift of active and passive sentences between the ST and TT is due to the difference in voice system of the language pair. An example of translation of active sentence into passive is given below:

ST: yes k ry layako swikrit liyera m tra r tri sipht sanc lan garnuparne cha

TT: Night shift can only be conducted after getting permission from this office.

3.2.4 Tense shift in Technical Translation

Technical text uses only the present and the future tenses. The past tense is not found in technical text.

Table No. 5: Tense Shifts

Number of sentences	ST	TT	Shift	Percentage
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Present tense	12	22	10	83.33%
Past tense	0	0	0	0%
Future tense	10	0	10	0%

Above table reveals the fact that in technical translation source text was both in the present and future tenses. On the other hand, target text was only in the present tense. Future tense was not found in target text and past tense was not used in any technical translation. The present tense is shift by 83.33% whereas no shift is found in the future tense. An example of tense shift in technical translation is given below:

ST: kacc pad rtha swoyam byabast garnu parnecha

TT: Manage oneself the raw materials.

CHAPTER - FOUR

FINDINGS, RECOMMENDATION AND IMPLICATION

4.1 Findings

On the basis of presentation, analysis and interpretation of data the major findings of the study have been summarized as follows:

1. In translating technical terms seven different procedures are found to be employed. They are literal translation, substitution, back translation, addition, deletion, blending and borrowing.
2. Literal translation is the most widely used procedure of translation of technical terms and borrowing is the least used procedure. In terms of descending order of frequency the procedures of translation of technical terms can be traded as literal translation (50%), substitution (23.75%), back translation (8.75%), deletion (7.50%), addition (5%), blending (3.75%) and borrowing (1.25%).
3. Both the ST and TT used more simple sentences in comparison to compound and complex sentences.
4. SL text used greater number of assertive sentences and TL text used the greater number of imperative sentences.
5. Interrogative, exclamatory and optative sentences could not be found in both texts of technical translation.
6. The number of active sentences was greater in ST and the number of passive sentences was greater in TT.
7. There was correspondence in negative and affirmative sentences between ST and TT.
8. There was use of both the present and future tenses in SL. But TT was written only in the present tense.
9. The past tense was not found in technical translation.

4.3 Recommendations

On the basis of the findings, I have made the following recommendations for pedagogical implications.

1. Translation is a bilingual activity. So it needs bilingual expert to get good translation.
2. A translator should be aware that a wide range of procedures can be applied in translating technical words depending up on contexts and the nature of words.
3. A translator should consider the number of words in original version and the target version and see the reason if his/her version drifts far away.
4. In translating the technical text a translator should select the appropriate procedures so that the original message of the text can be conveyed easily.
5. The TT should use simple sentences more than compound and complex sentences because the TT is in the English language which is a foreign language for Nepali reader.
6. There should not be any cases of omission of the ST concepts and meanings in translation. If the TT lacks ST concepts the TT readers can not get the factual details.
7. The translator should not add any concept subjectively because it violates norms and principles of translation.
8. The translator should use bilingual dictionary. He/she should use the equivalent word by checking its context and appropriateness.
9. The translator should not change the tense as far as possible because it affects the meaning of the TL and the TT expression.

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APPENDICES

Appendix - I

Technical terms

ST	TT
k lo masi	_____
chopeko bh g	shaded area
anka	digit
rich rj nambar	recharge number
dekhinecha	revealed
phon garnuhos	dial
nirdesan anus r	follow the instruction
kredit rakam	credit balance
samay badhi	validity
th h p unuhos	listen and conform
rich rjpachi	_____
pri-ped	pre-paid
sim c rd	SIM card
prakriy konimitta	_____
swik r	accept
ech.ai vi.	HIV
eds	AIDS
sankrman	infected
bhujhau	let's understand
bhujh u	make others understand
mukhya up yaharu	main prevention
shrim n ra shrimati	spouses
youn samparka	sexual relationship
ragat	blood

anga	organ
pariksngari	only after test
b ni bas lau	develop the habit
ch l chedne auj r	piercing instrument
sui	needle
nayā m tra	disposable
garbhawati	pregnant
r had ni b hak	bearer
nep li	Nepali
n garik	citizen
j rigariyeko miti dheki	the original date of issue
r had ni	passprt
my d	revalidated
bidesam gayek nep liharu	Nepalese subjects resident abroad
kutnitik niyog	diplomatic agency
n m ra teg n	name and address
arko r had ni	new passport
j ri	issued
j ch bujh	exhaustive investigation
gairak nuni tawarle	unlawful
raddha	impounded
kach pad rtha	raw materials
swyam	oneself
by basth	manage
s in bord	sign board
form ko py d	letter pad of form
rajitresan namber	registration number
r khnu parnecha	place

anib rya rupma	_____
b lak	child
udhyogako k mam	_____
gar una p ine chaina	not allowed
kasail i p rmark naparne gari	without any disturbance
udyog sanch lan garnu parnecha	run the indursry
r tri	night
sipht	shift
sanch lan	conducted
swikrit liyera	getting permission
upabhokt sanch lan en	consumer protection act
rhi	under
k rya garnu parne cha	run the industry
thap swikrit linuparne bhayem	if additional permission is
required	
sambandhit nik ya	concerned authority
utp dit bastu	product
bikri bitaran	_____
garnu purba	before
kh dhya pr bidhi tath gun niyantran bibh g	department of food technology
	and quality control
anugy	permission

Appendix - II

Procedure wise Presentation of Data

I. Literal Translation

SL terms	TL terms
1. tarik	procedure
2. kornuhos	scratch
3. anka	digit
4. nirdeson	instruction
5. swik r	accept
6. kacc padardha	raw materials
7. swayam	oneself
8. by basth	manage
9. r khhnu	place
10. b lak	child
11. p inechaina	not allowed
12. udhyog	industry
13. swikrit liyera	getting permission
14. upabhokt	consumer
15. samrakchyan	protection
16. en	act
17. rahi	under
18. sambandhit	concerned
19. nik ya	authority
20. kh dhaya	food
21. prabidhi	technology
22. gun niyantran	quality control
23. bibh g	department

24.sankrman	infected
25.bujhau	let's understand
26.arulai	others
27.bujh u	make understand
28.mukhya	main
29.youn samparka	sexual relation
30.parichyan	test
31.bani bas lau	develop the habit
32.sui	needle
33.nirmalikiran	sterilized
34.garbhawati	pregnant
35.kutnitik	diplomatic
36.niyig	agency
37.dart	register
38.nam ra teg n	name and address
39.gairak nuni tawarle	unlawful
40.radda	impounded

II. Substitution

1.chopeko bh g	shaded area
2.phon garnu	dial
3. samay badhi	validity
4.pirmark	disturbance
5.sanch lan	run
6.K rya garnu parnecha	run the industry
7.ch l chedne auj r	priecising instrument
8.nay m tra	displsable
9.r had ni b hak	bearer
10.my d	revalidated

11.arko r had ni	new passport
12.j ch bujh	exhaustive investigation
13.utp dit bastu	product
14.garnu purba	before
15.srim n srimati	spouse
16.up yaharu	prevention
17.ragat linu	blood transformation
18.anga linu	organ transplantation
19.anugy	permission

III. Addition

1.th h paunuhos	listen and conform
2.pharm ko py d	letter pad of form
3.parikchyangari	only after test
4. j ri garieko miti	the original date of issue

IV. Deletion

1.k lo masi	_____
2.rich rj pachi	_____
3.prakriy ko nimitta	_____
4.anib rya rupam	_____
5.udhyog ko k mam	_____
6.bikri bitaran	_____

V. Back Translation

1.rich rj namber	recharge number
2.phon	phone
3.pri-ped	pre-paid
4.sim c rd	SIM Card

5. s in bord

sign board

6. rajistreson member

registration number

7. sipht

shift

VI. Blending

1. kredit rakam

credit balance

2. r tri sipht

night shift

3. nep li n garik

Nepalese citizen

VII. Borrowing

1. Nep li

Nepali

Appendix - IV

Simple Sentences in Translation

- i. ST: ric rj prakriy ko nimitta pri ped sim k rd sahitako mobile phon
prayog garnuhos
TT: please use the mobile phone with your own pri-paid SIM Card.
- ii. ST: ec. i.vi/eds sankramit dampati bicm youn sampark nar khau
TT: no sexual relationship should be established between husband and wife
infected with HIV/ ADS.
- iii. SL: yo r had ni b hak nep li n garik hunuhuncha
TT: The bearer is the citizen of Nepal.
- iv. ST: r had ni j ri garieko mitidekhi 10 barsa vand my d huna sakdaina
TT: passport cannot be revalidated beyond ten years from the original date
of issue.
- v. ST: ec. i.vi./ edsle sankramit mahil sakbhar garbhawati nabanau
TT: No HIV/AIDS infected woman should be pregnant.
- vi. ST: r had ni gairak nuni tawarle prayog garem radda garna sakine cha
TT: Passport can be impounded in case of unlawful use.
- vii. ST: kacc pad rtha swoyam bewasth garnuparne cha
TT: Manage oneself the rawmaterials.
- viii. ST: n b lak l i udhyogko k mam samlogna gar una p ine chaina
TT: No child labor is allowed.
- ix. ST: upabhokt samrakhan en 2054 antargat rahi k rya garnu parne cha
TT: Run the industry under the consumer protection act- 2054.
- x. ST: kasail i pirmark narpne gari udhyog sanc lan garnu parnecha
TT: Run the industry without any disturbance to other people.

Appendix - V

Compound Sentence in Translation

- i. ST: k lomasile chopeko bh gl i kornuhos, tehera ankako rich j nabar dekhinecha
TT: screech the shaded area with a coin; the 13 digit recharge number will be revealed.
- ii. ST: cauda cauda namberm phon garnuhos ra pr pta nirdesan anus r rich rj garnuhos
TT: dial the number 1414 and follow the instructions.
- iii. ST: phno kredig rakam ra samaya abadhi th h p unuhos
TT: after recharge, listen and conform your new account credit balance and validity.
- vi. ST: aru byaktile prayog gareko sui ra anya ch l chedne auj r nirmalikarn gari wa naya m tra prayog garne b ni bas laun
TT: develop the habit of using disposable and sterilized needle and other prיעing instruments.
- v. ST: sainbotd ra pharmko pyadma rajistresan nambar anib rya rupam r khnuparne cha
TT: place the registration number compulsorily on the signboard and the letter pad of the form.

Appendix -VI

Complex Sentence in Translation

- i. ST: k lomasile chopieko bh g korieko khandam k rd swik r nagarnuhl .
TT: don't accept if shaded area is tampered with.
- ii. ST: bidesm gaek nep liharule kutnitik niyogm gai phno n m –theg n
dart gar una basyak cha
TT: it is important that Nepalese subjects resident abroad at the earliest
opportunity, register their name and address at the nearest Nepalese
diplomaticagency or the consular establishment.
- iii. ST: r had ni har yeko sthitim pur j cbujh garera m tra arko r had ni j ri
garine cha
TT: new passport can be issued only after the exhaustive investigation if the
pasport is lost.
- iv. ST: yes k ry layako swikrit liyera m tra r tri sipht sanc lan garnuparne cha.
TT: night shift can only be conducted after getting permission from this
office.
- v. ST: thap swikrit linuparne bhayem sambhandhit nik yako swikrit liyera
m tra udhyog sanc lan garnu partne cha
TT: get the permission from concerned authority, if additional permission is
required.
- vi. ST: utp dit bastu baj ram bikribitaran garnupurba kh dhya prabidhi tath
gun niyantana bibh gko anugy patra linu parne cha
TT: get permission of the department of food and technology and quality
control before bringing the product out in market.

vii.ST: ragat ra anga linu parda parikchan gari ec. i. vi. /edsle sankraman nabhayek byakti b ta m tra line garaun

TT: transformation of blood and transplantation of organs is to be done only after test.