

**TRANSLATION OF TECHNICAL TERMS:
A CASE OF SCIENCE TEXTBOOK FOR GRADE VIII**

A Thesis Submitted to the Department of English Education,
University Campus, Kirtipur

In Partial Fulfilment for the Master's Degree in Education
(Specialization in English Education)

By
Prakash Rijal

Faculty of Education
Tribhuvan University
Kirtipur, Kathmandu, Nepal

2008

**TRANSLATION OF TECHNICAL TERMS:
A CASE OF SCIENCE TEXTBOOK FOR GRADE VIII**

A Thesis Submitted to the Department of English Education,
University Campus, Kirtipur

In Partial Fulfilment for the Master's Degree in Education
(Specialization in English Education)

By
Prakash Rijal

Faculty of Education
Tribhuvan University
Kirtipur, Kathmandu, Nepal

2008

**TRANSLATION OF TECHNICAL TERMS:
A CASE OF SCIENCE TEXT BOOK FOR GRADE VIII**

A Thesis Submitted to the Department of English Education, University
Campus, Kirtipur.

In Partial Fulfilment of the Master's Degree in Education
(Specialization in English Education)

By

Prakash Rijal

Faculty of Education
Tribhuvan Univeresity
Kirtipur, Kathmandu, Nepal.

2008

T.U. Registration No. 9-1-50-155-98

2nd Year Exam Roll No. 280340/062

Date of Approval of the

Thesis Proposal 2064/11/28

Date of Submission: 2065/04/19

RECOMMENDATION FOR ACCEPTANCE

This is to certify that **Mr. Prakash Rijal** has prepared the thesis entitled, "**Translation of Technical Terms: A Case of Science Textbook for Grade VIII**" under my guidance and supervision.

I recommend the thesis for acceptance.

.....
Prem Bahadur Phyak (Guide)

Lecturer

Department of English Education,

TU, Kirtipur

Date: 2065/04/19

RECOMMENDATION FOR EVALUATION

This thesis has been recommended for evaluation by the following Research Guidance Committee:

Dr. Anjana Bhattarai

Reader and Head

Department of English Education

TU, Kirtipur

Chairperson

Dr. Bal Mukunda Bhandari

Lecturer

Department of English Education

TU, Kirtipur

Member

Prem Bahadur Phyak (Guide)

Lecturer

Department of English Education

TU, Kirtipur

Member

Date: 2065/04/20

EVALUATION AND APPROVAL

This thesis has been evaluated and approved by the following Thesis Evaluation Committee:

Dr. Anjana Bhattarai

Lecture and Head

Department of English Education

TU, Kirtipur

Chairperson

Dr. Jai Raj Awasthi

Professor

Department of English Education

Chairperson

English and Other Foreign Languages

Education Committee

TU, Kirtipur

Member

Mr. Prem Bahadur Phyak (Guide)

Lecturer

Department of English Education

TU, Kirtipur

Member

Date: 2065/04/24

DEDICATION

To my parents **Krishna Prasad Rijal** and **Kaushila Rijal** and
my wife **Gita Rijal** who have ever inspired and
encouraged me in every step of my life.

ACKNOWLEDGEMENTS

First of all, I am deeply indebted to my thesis supervisor honorable guru **Mr. Prem Bahdur Phyak**, Lecturer of the Department of English Education, T.U., for his proper guidance, enlightening ideas, invaluable suggestions and proper feedback. His co-operative nature and encouragement from the very beginning led the thesis towards completion.

I would like to express my sincere gratitude to **Dr. Chandreshwar Mishra, Prof. Dr. Jai Raj Awasthi, Prof. Dr. Govinda Raj Bhattarai, Prof. Dr. Tirth Raj Khaniya, Dr. Anjana Bhattarai, Dr. Bal Mukunda Bhandari, Mr. Balkrishna Sharma, Mrs. Madhu Neupane, Mrs. Sarswati Dawadi, Mrs. Hima Rawal** and all other respected teachers of the department for their valuable suggestions and constant help.

I would like to thank **Mr. Bal Ram Adhikari** without whose help the research would never be completed.

I would like to express my special thanks to my wife **Gita** and brothers **Prem, Krishna, Umesh** and sisters **Sita** and **Sirjana** and all my relatives for their continuous encouragement and kind support in my study.

Last but not the least I would like to remember my friends **Rajendra, Gynaendra, Uma** and others, all staff of Pang Dhaireni Higher Secondary School and **Subash (Dikhukpa) Rai** deserve many thanks for his excellent computer work.

August, 2008

Prakash Rijal

ABSTRACT

The present study entitled "**Translation of Technical Terms: A Case of Science Textbook for Grade VIII**" attempts to present description and interpretation of English and Nepali Scientific terms from the point of view of their morphological structures. It also aims to find out the techniques and linguistic problems of translating technical terms of science from English to Nepali. In order to accomplish the objectives, the researcher collected two hundred forty six English scientific terms and their Nepali translation from the textbook of science of Grade VIII published by CDC and JEMC.

This study found out that terms of both English and Nepali are profusely used as a source of technical terms in the field in science. Similarly, monomorphemic words are found in English version but the words which are monomorphemic in English are not necessarily monomorphemic in Nepali and vice-versa. Six techniques are used to translate the technical terms of science from English to Nepali which are literal translation, loan creation, loan shift, hybrid formation, borrowing and paraphrasing. While analyzing English and Nepali scientific terms four kinds of linguistic problems were found to translate the technical terms of science viz lack of conceptual accuracy, translingual lexical ambiguity, lack of lexicalization of scientific concepts: lexical gap and lack of preference for already existing TL terms.

This thesis is divided into four chapters. Chapter one introduces the study in terms of general background review of the related literature objectives and significance of the study.

Chapter two deals with the methodology adopted for the study under which the sources of data process of data collection and limitations of the study are presented.

Chapter three focuses on analysis and interpretation of the data. Mainly descriptive and analytical approaches have been used for the purpose.

The final chapter presents the findings and recommendations. Findings are derived from the analysis and interpretation of data carried out in chapter three and recommendations for pedagogical implications are made on the basis of the findings. The references and appendixes are the concluding parts of the study.

CONTENTS

| | Page No. |
|--|-----------------|
| RECOMMENDATION FOR ACCEPTANCE | i |
| RECOMMENDATION FOR EVALUATION | ii |
| EVALUATION AND APPROVAL | iii |
| DEDICATION | iv |
| ACKNOWLEDGEMENTS | v |
| ABSTRACT | viii |
| ABBREVIATIONS | ix |
| CONTENTS | x |
| | |
| CHAPTER ONE: INTRODUCTION | 1-13 |
| 1.1 General Background | 1 |
| 1.1.1 History of Translation in Nepal | 4 |
| 1.1.2 Morphology: An Introduction | 6 |
| 1.1.3 Translation Strategies | 7 |
| 1.1.4 Translation of Technical Terms | 8 |
| 1.1.5 The Translated Textbook of Hamro Bijyan for Grade VIII | 10 |
| 1.2 Review of the Related Literature | 11 |
| 1.3 Objectives of the Study | 13 |
| 1.4 Significance of the Study | 13 |
| | |
| CHAPTER TWO: METHODOLOGY | 14-16 |
| 2.1 Source of Data | 14 |
| 2.2 Sampling Procedure | 14 |
| 2.3 Processes of Data Collection | 14 |
| 2.4 Limitations of the Study | 16 |
| | |
| CHAPTER THREE: ANALYSIS AND INTERPRETATION | 17-56 |
| 3.1 Types of English Scientific Terms | 17 |
| 3.1.1 Monomorphemic Terms | 17 |
| 3.1.2 Polymorphemic Terms | 18 |
| 3.1.2.1 Terms Formed by Affixation | 18 |
| 3.1.2.2 Terms Formed by compounding | 21 |
| 3.2 Types of Nepali Scientific Terms | 24 |
| 3.2.1 Monomorphemic Terms | 25 |
| 3.2.2 Polymorphemic Terms | 26 |

| | | |
|-----|--|----|
| | 3.2.2.1 Words Formed by Affixation | 26 |
| | 3.2.2.2 Terms Formed by Compounding | 28 |
| 3.3 | Techniques of Translation of Scientific Terms from English to Nepali | 34 |
| | 3.3.1 Techniques of Translation of Terms in Physics | 35 |
| | a Literal Translation | 35 |
| | b Loan Creation | 36 |
| | c Hybrid Formation | 37 |
| | d Loan Shift | 37 |
| | e Borrowing | 38 |
| | f Paraphrasing | 38 |
| | 3.3.2 Techniques of Translation of Term in Chemistry | 40 |
| | a Literal Translation | 40 |
| | b Loan Creation | 40 |
| | c Hybrid Formation | 41 |
| | d Borrowing | 41 |
| | e Paraphrasing | 42 |
| | 3.3.3 Techniques of Translation of Term in Biology | 43 |
| | a Literal Translation | 43 |
| | b Loan Creation | 44 |
| | c Borrowing | 44 |
| | d Paraphrasing | 45 |
| | 3.3.4 Techniques of Translation of terms in Geology and Astronomy | 46 |
| | a Literal Translation | 47 |
| | b Loan Creation | 48 |
| | c Hybrid Formation | 48 |
| | d Borrowing | 48 |
| | 3.3.5 Techniques of Translation of Scientific symbols, Abbreviations and Acronyms | 50 |
| | a Borrowing with Transliteration in Devanagari Script | 50 |
| | b Borrowing without Transliteration in Devanagari Script | 50 |
| 3.4 | Linguistic Problems of Translation of Scientific Terms from English to Nepali | 54 |
| | 3.4.1 Lack of Conceptual Accuracy | 54 |
| | 3.4.2 Translingual Lexical Ambiguity | 54 |
| | 3.4.3 Lack of Lexicalization of the Scientific Terms: Lexical Gap | 55 |
| | 3.4.4 Lack of Preferences for Existing TL Terms | 56 |

| | |
|---|--------------|
| CHAPTER FOUR: FINDINGS AND RECOMANDATION | 57-60 |
| 4.1 Findings | 57 |
| 4.1.1 Morphological Structure of the Terms | 57 |
| 4.1.2 Techniques of Translation of Technical Terms | 58 |
| 4.1.3 Linguistic Problems of Translation of Technical Terms | 59 |
| 4.2 Recommendation | 59 |
| REFERENCES | 61 |
| APPENDIX I – Terms of Physics | |
| Terms of Chemistry | |
| Terms of Biology | |
| Terms of Geology and Astronomy | |
| Scientific Symbols, Abbreviations and Acronyms | |
| APPENDIX II –English Scientific Monomorphemic Terms | |
| APPENDIX III – The Structure of English Scientific | |
| Complex Terms | |
| APPENDIX IV – Nepali Scientific Monomorphemic Terms | |
| APPENDIX –V The Structure of Nepali Scientific | |
| Complex Terms | |

LIST OF ABBREVIATIONS

| | | |
|------------|---|----------------------------------|
| ABB | : | abbreviation |
| ACRO | : | Acronyms |
| Adj | : | adjective |
| Adv | : | Adverb |
| Appendix | : | Appendix |
| CDC | : | Curriculum development center |
| CF | : | Compare |
| JEMCE | : | Janak Education Materials Centre |
| i.e. | : | That is |
| N | : | Noun |
| NO | : | Number |
| PREP | : | Preposition |
| SL | : | Source Language |
| SLT | : | Source Language Text |
| STRUGGLE | : | Source Text |
| TECHNOLOGY | : | Target Language |
| TLT | : | Target Language Text |
| TT | : | Target Text. |