

**LETTER GRADING ASSESSMENT SYSTEM: A NARRATIVE
ANALYSIS OF SECONDARY LEVEL STUDENTS**

THESIS BY

SHAKUNTALA ADHIKARI

EXAM ROLL NO.: 2400045

T.U. REGD. NO.: 9-1-240-391-99

**IN PARTIAL FULFILLMENT THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF EDUCATION**

SUBMITTED TO

TRIBHUVAN UNIVERSITY

DEPARTMENT OF MATHEMATICS EDUCATION

SAPTAGANDAKI MULTIPLE CAMPUS

BHARATPUR, CHITWAN

MARCH, 2019

DECLARATION

I hereby declare that the thesis entitled *Letter Grading Assessment System: A Narrative Analysis of Secondary Level Students* is the result of my original work. No part of the thesis was earlier submitted for the research degree to any university and educational institution. This thesis is the result of my own research work conducted in the study area whatever; subject matter I have presented in this thesis is my original except some cited materials.

.....

Shakuntala Adhikari
Saptagandaki Multiple Campus
Bharatpur, Chitwan

Date :



सप्तगण्डकी बहुमुखी क्याम्पस SAPTAGANDAKI MULTIPLE CAMPUS

Estd. 2045 (1988)

(Affiliated to Tribhuvan University, Nepal)

A QAA Certified Campus by UGC, Nepal

भरतपुर, चितवन, नेपाल
Bharatpur, Chitwan, Nepal

च.नं./Ref. No.

RECOMMENDATION LETTER

This is to certify that Mrs. Shakuntala Adhikari, a student of academic year 2072/73 with exam Roll No. 2400045 (2073) and T.U. Registration No. 9-1-240-391-99 has completed this thesis under my supervision, during the period prescribed by the rules and regulations of Tribhuvan University, Nepal. The thesis entitled *Letter Grading Assessment System: A Narrative Analysis of Secondary Level Students* embodies the result of his investigation conducted during the period of 2073 to 2075 under the Department of Mathematics Education, Saptagandaki Multiple Campus, Bharatpur Chitwan. I recommend and forward that his thesis be submitted for the evaluation as the partial requirements to award the degree of master of Education.

.....
(Mr. Basanta Raj Lamichhane)
Supervisor

.....
(Mr. Mani Raj Mahato)
Head

Date:

Date:

LETTER OF APPROVAL

ACKNOWLEDGMENTS

First, I would like to express my sincere gratitude and gratefulness to my research supervisor, Basanta Raj Lamichhane, Lecturer of Saptagandaki Multiple Campus, Bharatpur, Chitwan for providing all types of basic idea and techniques essential for carrying out this research work from the beginning to the end and for empowering me to present this research work in this form.

My sincere gratitude goes to Head of Mathematics Department, Mani Raj Mahato of Saptagandaki Multiple Campus Bharatpur, Chitwan for his suggestion and guidance.

Similarly, I am thankful to Mr. Binod Khanda Timilsina, Mr. Rudra Prasad Chalise for their valuable suggestions throughout my work.

Likewise, I am grateful to son Krischal Khanal, Kritan Khanal who helped me on typing and correction as well as computer support and my husband Ram Krishna Khanal who always inspired me in every step of my life.

Furthermore, I am very much thankful to all those friends who helped me directly and indirectly in preparing this study.

Finally, I am very much thankful to Quality Photocopy for better computer support.

-Shakuntala Adhikari

ABSTRACT

The study was conducted with the aim to analyze the students' perceptions about letter grades and to find out the effects for mathematics learning of secondary level students in Chitwan. Here, I tried to explore students' perception about letter grading and its impact on mathematics learning. A narrative research design was adopted to explore the possibilities of the problem about letter grades and its effect in mathematics learning. Four students were taken to gather the information in which two were SLC graduates and two were the students of grade 10. In depth semi structured interviews were applied to capture the perception of students'. The recorded interview were presented in narrative way and analyzed by considering theory. Multiple layers of thematic analysis and interpretation of letter grading assessment were associated with 'not exact scoring', 'reducing anxiety of examination', 'negative effect on mathematics learning' and 'locally rejected globally accepted'. Findings of the research shows that students had mixed attitude about letter grading system they said securing marks refers to their grades and the examination rigor was lessened. Most of the students said that the letter grades have negative effect in mathematics learning. However, the studies show that letter-grading system has reduced the negative effects of previous numbering system like high suicide rate, school dropouts etc. This is a progressive step to increase literacy rate in Nepal.

TABLE OF CONTENTS

DECLARATION	i
RECOMMENDATION LETTER	ii
LETTER OF APPROVAL	iii
ACKNOWLEDGMENTS	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
ACRONYMS	viii
CHAPTER 1: INTRODUCTION	1-14
1.1 Background of the Study	1
1.2 Statement of the Problem	10
1.3 Purpose of the Study	11
1.4 Research Questions	12
1.5 Objectives of the Study	12
1.6 Significance of the Study	13
1.7 Delimitation of the Study	14
CHAPTER 2: REVIEW OF RELATED LITERATURE	15-26
2.1 Review of the Literature	15
2.2 Theories Related to Assessment System	17
2.3 Empirical Literature	19
2.4 Implication of the Review for the Study	22
2.5 Conceptual framework	23

CHAPTER 3: METHODS AND PROCEDURE	27-33
3.1 Selection of the Study Area	27
3.2 Research Design	27
3.3 Tools of Data Collection	28
3.4 Nature and Source of Data	29
3.5 Quality Standard of the Study	32
CHAPTER 4: ANALYSIS AND INTERPRETATION	34-43
CHAPTER 5: SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATION	44-49
5.1 Summary and Findings	44
5.2 Conclusion	46
5.3 Recommendation for Further Research	48
REFERENCES	50-54
APPENDICES	I-XI

ACRONYMS

AD	Anno Domini (one of the system of calendar)
APEID	Asia-Pacific Programme of Educational Innovation for Development
BPEP	Basic and Primary Education Project
BS	Bikram Sambat (one of the system of calendar)
CDC	Curriculum Development Centre
CERID	Centre for Educational Research Innovation and Development
GPA	Grade Point Average
ICMI	International Commission on Mathematical Instruction
OCE	Office of the Controller of Examination
SEE	Secondary Education Examination
SLC	School Leaving Certificate
SSRP	School Sector Reform Plan
TU	Tribhuvan University
USA	United States of America

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

As my study area is mathematics education, I have always been interested in the new reforms on education system. The national level school examinations called “school leaving certificate examination” used to be conducted by the SLC board under the office of the controller of Examination. There were several recent changes made in the evaluation system of SLC examination system. The students seem to be in the mind-set that they do not need to work as hard as they did in their SLC examination in the past. The letter grading system is the change in formal assessment system of Nepal in which students’ marks obtained in paper-pencil test is replaced by letter grades. However, it has arisen several questions like; why is numbering system replaced by letter? What is the impact of letter grades in mathematics education? Does this assessment system reflect the capability of the students in better way?

Educational history of Nepal is not very long. It was formally started in 1910; Prime Minister Janga Bahadur Rana established the first English medium school as the name of Durbar School in Nepal. At that time, the school had some European and Indian teachers. That school had affiliated to Calcutta University. Different subjects were taught there including mathematics. At the same time, Janga Bahadur established first primary school in Lhasa, outside the Kathmandu valley. In 1931 BS General Jeet Jung gave the permission to establish Sanskrit school. Then Ranodeep Singh established Ranipokhari Sanskrit Pathasala. Mathematics was taught as astronomy and arithmetic. In 1957 BS under the enlarged education system, Dev Shamsheer opened 16 governmental schools in the different parts where different subject were taught such as Veda, grammar, karya, astronomy, arithmetic and science.

In 1962 BS, Shrestha Pathshala was established in which account and arithmetic were included in the curriculum (BPEP, 1997).

Even though the history of education in the world is long but Nepal has not such long history. The SLC board was established in Nepal in 1990 BS to conduct the summative evaluation of students learning in secondary level (Baral, 2008). The system was practiced for long duration as a means of evaluation until replaced by grading system. Due to such type of evaluation system most of the examinations in Nepalese education system pass rate, average score in subjects and highest scorer, etc. vary from year to year and from subject to subject. For e.g. in 2059 the students who passed the SLC was 32.05% and in 2069 the value rise to 46.18%, took a leap up to 68.47%, and went down to 47.43% in 2072. If these scores are reliable, it will mean that the SLC examinees' natures vary from one year to another year. The causes of year wise difference may have many possible reasons among them some reasons are like the change in question pattern, minor fluctuation in checking style and other simple mistakes. If the reasons are true then, the fluctuation in SLC are caused naturally by human mistakes and thus SLC scores are not comparable from one year to another (Baral, 2008). Therefore, there is difficulty in comparing score from subject to subject and from year to year. With introduction of letter grading, OCE is on the way to address some of these issues and for some more works need to be meaningful and consistent interpretation. OCE had started letter grading system from the year 2071 B.S. with about 99 vocational stream schools as samples intending to expand from the year 2072 all over the country. Nepal adopts two types of evaluation in high school education namely formative and summative evaluation.

Formative evaluation is used to improve student's achievement throughout the academic year. However, the summative evaluation used to be held at the end of

academic year. The SLC result were published in number system since seventy years. It classifies the student's qualification. Mainly SLC mark-sheet that uses letter grading should have following features – grade with interval of raw scores included, grade point, grade point average, and grade descriptions. This initiation is praiseworthy. There is a number of improvement works to be implemented to make it technically sound and ensure standard Grade descriptors are the criteria used to define the grade and give them meaning (Thorndike & Christ, 2011; Reynolds, Livingston & Wilson, 2011; Wise, Taylor, Felicia, Kristina, Thacker, Schultz, Wilson & Dean, 2007 as cited in Creswell, 2012) communication.

British Society of Apothecaries introduced grading system to measure the skill and ability of doctors in 1870. America adopted grading system in 1900. Multi-classed school used this system in 1795. Likewise, in the report of president of Harvard University in 1875/1876, the students were divided in the three groups as 'Passed in all their work', 'Failed but can make up' and 'Failed and must repeat' (Lamichhane, 2072).

The first school to use letter grades was Augustana. It used this system at the end of first academic year (1860-1861). Lars Poul was the first founder of grading system. He used chart for the grades like a, ab, bc and c to record the performance in five subjects of twenty students. According to "A Narrative Report of Proceeding of the National Seminar on Letter Grading System: Implication and its Impacts in Higher Education" held on 22nd February 2016 (2072-Falgun14 BS) grading system is the performance of students in a particular course of study. A grading system is a worldwide practiced system for labelling the quality of students' academic performance. It turns the student's score into the continuum of grades, which is essential for rating and students' performance in different areas of achievement as well

as their global achievement. Multiple types of grading systems are practiced to rate the quality of students' performance. They can be broadly classified into absolute and relative grading system. Relative grading system rates the students' performance in comparison to the specified group of students (Lamichhane, 2072). Likewise standard score norm in contrary, absolute grading system rates the student's performance in terms of predetermined standard of excellence based on their achievement in different areas of the course.

Generally, relative grading system is applied in a standardized test, in which we are assured about the uniformity of the process of test development. These processes are not applied in academic tests used in schools and colleges because of the threat to secrecy of the test.

It is assumed that pretesting will break the secrecy of the test paper. However, the secrecy of test papers can be maintained by preparing a large 'item bank' of pretested items. The traditional grading used in school and colleges for judging the quality of students' performance is absolute grading system in which the quality of students performance judged against predetermined quality of standard such as distinction, first division, second division, third division, fail etc or A, B, C, D and F and so on. These grading systems can be further classified into numerical and letter grading systems. In numerical grading system, the band of scores of students are termed as ranks of quality such as above 80% is termed as distinction and in letter grading system the band of scores are translated into letters such as A, B, C, D and F or E (Excellent), G (Good), S (Satisfactory) and U (Unsatisfactory). The desired qualities of a grading system or the almost purpose of a grading system is to rate the students' performance is such a way that its quality can be determined.

In this journey of my study I spent the last several months for reading books, journals and online articles about letter grades. I also consult conversation with related personalities like students, teacher, curriculum developer, guardian etc. The respondent gave me both positive and negative response. Most of the conversations end up focusing upon uncertainty in letter grading system. Different countries applied different categories for applying academic grading. I consider some countries grading notation and their description.

Academic grading in Canada

The following is commonly used conversions from percentage grades to letter grading:

Letter	Percent
A	80% - 100%
B	65% - 79%
C	50% - 64%
D	0% - 49%

(<http://www2.gov.bc.ca/gov>)

GPA Calculation for the USA

Along with the letter grades, a number called grade-point average, or GPA measures grades in the United States. Grade-point average is the cumulative average of the grades in all of a student's classes, and is based on a scale of 0 to 4.0. Grade point average is calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. The following chart shows how to convert letter grades to a grade-point average:

A:	4.0
B:	3.0
C:	2.0
D:	1.0
F:	0.0

Academic Grading in India

Generally, at the school level percentages of 75-85 are considered excellent while above 95 is exceptional. At the university level, however percentages between 60 and 79 are considered excellent and are quite difficult to obtain. The direct comparison of the percentage of marks obtained at one university with that at another is difficult. Indeed, the differential between universities in terms of marking scale can be as much as 20%, with some requiring an 85% plus for the award of Distinction. In some instances; a score close to 90% is very rare and is virtually impossible. Much of this can be reconciled in the backdrop of the minimum pass score. In a university with a 90% plus for distinction, 60% may be the minimum passing mark. The university awarding distinction at 70% may have a passing mark of 45%. Thus, the comparison of GPA (grade-point average) is quite difficult for Indian students elsewhere. A student having 95% will be close to 3.9 on the GPA scale, as would a student with a 75% from a 70% cut-off-for-distinction institution.” (Cited from <https://www.revolvy.com/.../index.php?...A...>).

Curriculum Development Centre and Office of the Controller of the Examinations are doing homework to implement the letter grading system. The education system and its assessment system in this era have been changed as per need and contemporary society. I therefore would like to research on the impact of letter grading system in teaching learning activities of Mathematics.

Government of Nepal have introduced several reforms in the education system. After Rana system, there were several changes made in the education system. In 2007 BS. By the same way, there were several reforms in education sector. Some of important reports are; Nepal National Commission Report 2011, Sarvangin Rastriya Shiksha Samiti 2018, National Education Plan 2028, Education for All 2000 AD, School sector Reform plan 2066 BS and School Sector Development Program 2073 to 2080. The Government of Nepal has committed to improve the quality of education. The School Sector Reform Plan (SSRP) had detected the need for change in the examination system in Nepal. The successful implementation of these above reforms, found that the prioritization is essential in the development of new assessment methodologies and examinations. The development of assessment tools can be applied to new challenges including school-based assessment of student learning.

Letter grading system is new practice in Nepal but it has long history in the world. This system was started since 2072 BS of SLC result in Nepal. “Dhungel, said that they have formed a nine-member committee under his coordination to prepare working procedure for implementation of the letter grading system (Chhetry, 2015, The Himalayan). Letter grading system was introduced in the pilot phase under technical and vocational stream for students from 99 schools, which was largely successful. Moreover, as per the government’s plan, the system was introduced in all other streams from the year 2072 BS. to SLC examinee.” (Cited from <https://thehimalayantimes.com/.../letter-grade..>)

CDC and other educational agency has focused on improving the quality of school education. The biggest problem that confronts OCE has been faced today is the high failure rate in the SLC examination every year. Analysis of SLC results of the

past fifteen years (1985 to 2004) revealed that approximately more than 60% students failed in SLC. Furthermore, analysis of the SLC results of 2060 (Bhatta, 2004) showed that public schools that are mostly attended by students from rural areas with socially and economically disadvantaged background tend to perform poorly at an alarming scale. Similarly, there is also a wide gap in performance of students between the results of year-to-year. For example in 2059, the pass percentage of students was 32.05%, in 2069, pass percentage increased to 46.18%, and became 47.43% in 2072. This shows that SLC result varies from one year to another. Examination is one of the most powerful levers of reform. It is generally agreed that high quality assessment is essential for a high quality education.

Stating the main motto behind introduction of letter grading system in SLC exams was to avoid use of words such as 'pass and fail'. Still there are some challenges in implementing the new system as people still do not have the proper knowledge of the new system. Even though the history of education is long, the history of grading is only 300 years long. Assessment is the evaluation of a student's achievement. In Nepal 32% was used to be the deadline for pass or fail. Some countries' schools grade the achievement of students in letters instead of numbers. For e.g. in Australia, the grades like insufficient, sufficient, satisfactory, very good, etc are used. However, in Malawi, pass, iii class honours, ii class honours, ii class upper division, first class honours, first class honours etc are used to grade.

So far, on the academic year 2071 OCE had introduced the letter grading system for technical and vocational stream in the pilot phase. Under the letter grading system students scoring between 90 to 100 percent were given 'A+', 80 to 89 percent 'A', 60-79 percent 'B', 40-59 percent 'C', 25-39 percent 'D' and below 24 percent were given 'E' (letter grading system in SLC from this year-the Himalayan).

The central board of secondary education has always been following a marking system in their class 10 board examination, i.e. awarding marks to students answer sheets. However, there are many negative responses from parents and students as well as history of long marking system completely replaced by a grading system. Letter grades inspire the students to obtain good grades like A grade and discourages the level of F grade among the students.

According to Reddy (2012), “A grading system in education is a system that is used to assess the educational performance of a child, which is entirely based upon points alone”. According to her, advantages of letter grading are reduced score pressure of student. According to grading method, the actual marks of a subject do not get mentioned on transcripts but only the grades. Now students do not have to score specific marks for good impression but only target a grade that can be achieved easily. “It identifies the weakness and strength of the student’s performance. Letter grading description to identify their weaknesses and strengths. Grade would be apply to judge children’s skills of writing, reading and listening.”

On the other hand, grading system has disadvantages too. It has decreased performance of students due to grading system as children tend to perform less. They know that they will achieve the targeted grade even by making a few mistakes. For instance, if a student targets the grade “A⁺” that involves the range from 90% to 100%. He/she will know that even the scores will be 90; grade “A⁺” will be assigned. Hence he/she does not require scoring 95 or 100. Grading system de-motivates the student’s real performance to some extent who would have been performed higher but still they stand equal to those making less effort. For instance, grade “A⁺” will be assigned to all those scoring from 90 to 100. Therefore, students who made no mistakes and those who made a few all will stand equally at one grade. As grading

system has divided the marks among different tasks such as assignments, presentations and final exams, the students become lethargic due to it. Students become lesser active in final exams.

Assessment for learning is all about informing learners of their progress to empower them to take a necessary action to improve their performance. Teacher as a facilitator, has to create learning opportunities where learners can progress at their own undertake consolidation activities where necessary.

1.2 Statement of the Problem

Assessment system needs to be changed according to the policies and plans adopted by the nations. Moreover, education policies and plans also need to recognize the universal trend as well as that help to enhance the quality of education in the contemporary society. In our context, the quality of education basically judged by the achievement score of the students' obtained in externally executed standardized paper pencil test.

From various researches, it has been repeatedly shown that student achievement in mathematics in Nepal is relatively low and unsatisfactory. There is close interrelationship between achievement and different facts since 1990 BS (SLC Result History in Nepal, 2016). The grading system is in worldwide practice for the labelling of students achievement. The study was mainly concerned with assessment system and its impact on student's life. The purpose of this study is to explore student's perception about grading system.

This problem aggravates more when marks in different subjects are summed up and a composite score is used. It is probable that marks obtained in one subject might influence more to the composite score than other subject. For example if marks in English language vary from 30 to 60 while marks in Mathematics vary from 5 to 95, the result for the candidate will be that Mathematics will receive three times the

weight of English (APEID, 1978). In effect, it will be an evaluation of the student's performance in Mathematics rather than in English language.

According to the national education report (Gorkhapatra, 27 March 2014), most of the examination in Nepalese education system's pass rate, average score in subjects and highest score etc vary from year to year and subject to subject. One of the cause for year-wise difference is due to test or testing mechanism. In one year, if exam question are easy, then pass percentage is high and in next year if there are difficult questions then it comes low pass percentage which directly affects on the overall result. Passed percentage of SLC/SEE is not comparable from year to another. The validity and reliability of assessment system was highly discussed. Almost all national baseline survey of school education in Nepal indicate the poor achievement in mathematics. Therefore, this study was mainly concerned with assessment system and its impact on the mathematics education. What is the impact of letter grading for the students? Likewise, what are the impacts of letter grading system for mathematics education?

1.3 Purpose of the Study

In Nepal, mathematics has been taught as one of the major subjects in school but the high failure rate and low achievement seen in mathematics in secondary level examination i.e. SLC have become a matter of national concern in Nepal. Majority of students who fail examination are failed in mathematics and this scenario invites the failure of more students in the exam. Pass rate of students in mathematics is very low in national level examination via SLC and those who declared to be passed did not able to obtain good marks in maths. It is probable that marks obtained in one subject might influence more to the composite score than other subject. For example if marks in English language vary from 30 to 60 while marks in Mathematics vary from 5 to 95, the result for the candidate will be that Mathematics will receive three times the

weight of English (APEID, 1978). In effect, it will be an evaluation of the students' performance in Mathematics rather than in English language.

The above statements and data clarifies that the old evaluation 'numbering system' is not scientific and some educationalists in Nepal criticize the SLC exam by citing its irrelevance in the present context and say that the test is neither standardized nor can it assess the capacity of Nepalese children more accurately.

The main purpose of the study is to explore students 'experience about letter grading system and to observe the phenomena closely after implementing the letter grading. In this study two issues were explored which are students' perceptions about letter grading system and its impact on mathematics learning.

1.4 Research Questions

To address the issues about assessment system, I have formulated some research questions. The study tries to answer whether the new letter grading assessment system helps the students in mathematics learning or not by observing outcomes of the following questions -

- What is the students' perception towards the letter grading assessment system?
- What is the effect of letter grading system in mathematics learning?

1.5 Objectives of the Study

"A research objective is a statement of intent used in quantitative research that specifies goals which the investigator plans to achieve in a study." (Cresswell, 2012). The objectives of the study are to understand the reaction in students due to grading system and to understand what impact the letter grading system has on mathematics study. Therefore, some of the related research journals

and books were reviewed in this chapter. In this research, two objectives are indicated:

- To explore the SLC/SEE students' perceptions about letter grades.
- To find out the impact of letter grading for the mathematics learning.

1.6 Significance of the Study

Education is the backbone for the development of each country. It determines the nations' future. Therefore today's education has to address tomorrow's needs. However, estimating tomorrow's need is a difficult task to do in this rapidly changing world. Success of any education system depends heavily on how its policies are directed and implemented.

In order to suggest measures for enhancing achievement of mathematics in SLC examination, the causes of its need is to be identified which helps to find out the factors of achievement of mathematics in SLC examination. Therefore, such type of study is necessary in order to make education better and fruitful. The vicious circle of blaming culture pervasive in our society can also be seen in education sector. No one can take the sole responsibility for unsatisfactory results in SLC. If the situation sustained in this manner no efforts can effectively help to improve mathematics achievement of SLC/SEE students. I therefore tried to find out the students perception about assessment system. I believed that my research outcomes would be helpful for teacher, students and curriculum development centre. I hope that this study would help the students and mathematics teacher to improve overall teaching learning process. Likewise this study may help in providing more information about letter grading system and its advantages and disadvantages to the secondary level students.

1.7 Delimitation of the Study

Due to the constraints of time and economy, it was not feasible to cover the entire region. Because of the selection of the limited region, the result of this study cannot be generalized. Delimitation are those characteristics that limit the scope and defined the boundary of the study (Simon, 2011). This study was designed for the secondary level student of a school in Chitwan district and study is delimited to diverge geographic region other than Chitwan. The sample of the despondences of the study were taken according to the researcher purpose. The sample of the study were selected by purposefully.

Following are the main delimitation of this study:

1. This study concerns only with the letter grading system.
2. This study was limited in a sample of SEE preparation students and SLC passed out students of Narayani Model Secondary School.
3. The sample size of students was only four.
4. The interview was conducted only three times.
5. This study was confined to only government school.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 Review of the Literature

Literature review is the important part to perform the research task in a better perspective. It provides to the researcher in a particular research to answer the question what the related studies have been carried out so far. The review of the related studies provides direction to the researcher to find the related variables involved in the study and to explore the gap in the contemporary discourse in which the respondent can contribute for the discipline.

Assessment is the key point of learning because it helps students learn. When students are able to actualize or realize how they are doing in a class, they are able to determine whether they understand course material. Assessment can also help motivate students. If students know they are doing poorly, they may begin to work harder.

Letter grading system is a tool of assessment. Thus on this study of mine which is titled “Letter grading assessment system: A narrative analysis of secondary level students”. I have reviewed the literature of assessment system as well as letter grading system. I collected some article, journal and books related to assessment and letter grading system. Before proceeding with a proposal or a study a researcher needs to weigh the factors and ask other for reaction to a topic under consideration (Creswell, 2011). This study mainly focused on assessment system as a tool of letter grading and its impact of students’ learning. Therefore, I focused on journal, books articles related to assessment and letter grading. This is narrative based study. The study intended to bring the advantages and disadvantages of letter grading assessment system.

Relation between Letter Grading and Assessment System

Assessment is the judgement or evaluation made on some topic of a subject. Letter grading system is the system of representing the evaluation made on a student's subject wise performance by different letter grades like A+, A, B+, B etc. This makes us clear that the letter grading system is one of the methods to observe the student's performance. The goal of this assessment system is to improve student's learning. Letter grading system can play a role in assessment, which involves many upgraded measures of student's learning. Grading is a tool to evaluate individual students learning and performance. Grading is not direct measure of learning. Letter grading is a scale to measure student's assessment grades is major sources of data.

Assessment of learning is used to plan future learning goals and pathways for students (Harlen, 2007). It is dependent on the validity and reliability of activities and assessment as learning encourage students to take responsibility for their own learning. Grading system identifies the rank of weakness and strength of students' performance. Letter grades motivate students so that the goal of upgrading result can be achieved.

Assessment for learning refer the student to learn better rather than to achieve better marks. Major implication of letter grading is behavioural changes in terms of cognition skill and way of appreciation to the purpose of grading is to rate students' performance in such a way that its quality can be determined. (Rana and Prakash, 2072). Assessment for learning means that students are encouraged to be more active in their learning and associated assessment. The purpose of assessment for learning is to create self-regulated learners throughout the life. It helps to motivate the students. Assessment is embedded in the education system.

2.2 Theories Related to Assessment System

The most important purpose of assessment is to improve teaching and learning. Assessment should make sense to students and their performance too should be reported and interpreted in terms of their understanding level. Experiences of assessment system should be part of a positive learning process; therefore it should not erode students' sense of worth. Current thinking on child learning holds that all learners are born curious and can acquire new knowledge, skills, and attitudes. When learning has not taken place, it is not the fault of the learner alone. Socio-cultural condition of the learner also may determine the level of learning. In the process, each of the learning approaches involves a varying motive and a related congruent strategy.

Assessment for Learning

Assessment for learning includes teaches using proof about the student's understanding and skills in order to inform their teaching. It is sometimes also referred to as 'formative assessment'. It occurs usually throughout the teaching and learning process to clarify student learning and understanding. It reflects a view of learning in which assessment helps the student to learn better rather than to achieve better marks. Assessment for learning includes formal and informal assessment activities as a part of learning to inform the planning of future learning. (Brown, 2012)

Assessment for learning is practice where students are encouraged to be more active in their learning and associated in the assessment. The ultimate purpose of assessment for learning to create self-regulated learners. It is all about informing learners of their progress to empower them to take a necessary action to improve their performance.

Assessment as Learning

Assessment as learning occurs when students are their own assessors. Students monitor their own learning, ask questions and use a range of strategies to decide what they know and can do, and how to use assessment for new learning. Assessment as learning encourages students to take responsibility for their own learning. It requires students to ask questions about their learning. Assessment as learning offers teachers and students to create their learning goals that helps them for engaging teaching learning activities independently. Assessments as learning acknowledge peer assessment, self-assessment and reflective process to access their own learning. Similarly, assessment as learning focuses on the developing metacognitive ability in students including self-monitoring of learning progress, self and peer assessment of achievement, self-motivation and self-regulation and set their learning activities accordingly (Earl & Katz,2006; Gardner, 2012).

Assessment of Learning

Assessment of learning sometimes referred to as 'summative assessment'; it usually occurs at defined key points during a unit of work or at the end of a unit, term or semester, and may be used to rank or grade of students performance. The effectiveness of assessment of learning is for grading or ranking depends on the validity and reliability of activities. Its effectiveness as an opportunity for learning depends on the nature and quality of the feedback. Assessment of learning is used to plan for future learning goals and pathways for students. It provides evidence of achievement to the wider community, including parents, educators, the students themselves and outside groups. Assessment of learning provides a transparent interpretation of assessment across all audiences (Harlen, 2007).

Similarly assessment of learning focus to explore how much student has learned at the end of certain period of time or at the end of formal examination. It is used not only to ascertain the present level of achievement, but also to provide an external frame of reference on that achievement and ranks the students on the basis of an externally pre- specified norm.

2.3 Empirical Literature

According to Lamichhane (2011), 90 years long SLC examination is highly discussed subject till now. In Nepal, there was the great respect of SLC when the literacy rate was very low. It used to be thought that it must be passed. It was also called Iron Gate. This was given so much importance and discussion that the failing students did not hesitate to commit suicide because of failure. It was never heard that in university, someone committed a suicide because of failure. But the suicide immediately after the publishing of SLC result was increasing.

If that system was continued, the trend of suicide could flow to the lower levels too. The students' physical, mental, psychological and emotional development is going in such way that it easily touches the failure results. These things become more sensitive when the family diverges and one lives independent. At schools, teacher and at home, parents present SLC in frightening way. We cannot say that the student scoring 32 marks is capable and the same student scoring 31 is incapable. The unhealthy competition and numbering system among schools have more disadvantages than advantages. If these matters are not looked after then in the coming days, this condition becomes more dangerous and frightening.

There were 1,659,388 students at class 1 in the year 2062 and in the year 2071, when this batched was appearing only the SLC examinees were 427,000 remained. This means 75% students disappeared in the periods. Therefore, those 25% should not

be stopped in their education journey by passing or failing them. Therefore, this step must be stepped on. There is no other option of sustaining the old system. (Sikshak Srot Pustak, 2072). Assessment of learning is focused on learning is used to plan future learning goal and pathway for students.

Singh (2015) presented paper on a letter grading system – conceptual orientation under the national seminar on the topic of “Issues in grading”. According to him Measurement such as achievement test, intelligent test or personality test there is some degree of error in the measurement and score, which cannot be fixed. According to him letter grading is meaningful than number. Grading is not just conversion of a raw score into division or grades like A, B, C ... but also attempt to convert a raw score into meaningful and consistence interpretation.

Rana and Prakash (2015) presented paper on the topic of “Implication of Grading System in Higher Education”. The main purpose of their paper is to present issues, challenges and problem of letter grading evaluation in higher education. According to them the main objectives of the learning is behavioural change in terms of cognition, skill and way of appreciation. Grading system reports about the performance of student’s score in different areas of achievement of student’s performance. The purpose of a grading system is to rate the students’ performance in such a way that its quality can be determined. Grading system should be comprehensive as well as analytical. It should indicate the abilities of students in different areas of achievement of student’s capability. The grading should be reliable. It should use uniform standard criteria for rating the performance of students. It should be valid and clearly indicate the performance of students in particular areas.

The issues of assessment is described by (Main, 2013) as grading ensures support to students, families, teachers, counsellors, advisors. It supports specialists

having the detailed information they need to make important decisions about a student's education. The grading system measures, reports and documents student's progress and proficiency against a set of clearly defined cross curricular and content area standards and learning objectives collaboratively developed by the administration, faculty and staff.

Similarly Reddan (2012) did a research entitled "Students' perception of the effect of grading a course in work integrated learning" with the purpose of promoting learning, measuring individual achievement of student and evaluating program on Griffith university. The researcher conducted research on 29 students who made up the entire cohort in field project at Griffith University. He used in-depth interview to collect data he specially designed the questions for in depth interview on the effect of grading. The major finding of his study were indicated that relevance Assessment system depend upon promoting learning, how much they motivate to learn and it have progress the learning environment rather than measuring the students' outcomes in numerical values. And grading increases the motivation and effort of students learning progress as well as grading focuses on marks rather than performance of students.

Dylan (2011) researched on 'Assessment for Learning: why, what, how'. In his study researcher was focused on "What is assessment for learning". On his study, the researcher overviewed "the research for methods of group instruction as effective as one to one tutoring. The objective of his research was reviewed of research on assessment and classroom learning. He had done research on a school of San Francisco including students of pre-primary to higher secondary. The finding of his study is assessment is the bridge between teacher and student, assessment raising the achievement of student, to raise achievement requires improving teacher quality and

assessment improving the teacher quality for improving teacher professional development.

Assessment is used to cultivate students' active learning skill by asking question. Purpose of the assessment is to explore the present teaching learning status and used to reform the activities according to the need of learner. "A formative assessment is a tool that teachers use to measure student grasp of specific topics and skills they are teaching. It's a 'midstream' tool to identify specific student misconceptions and mistakes while the material is being taught" (Kahl, 2005 p. 11) Students take grading system in light way. Assessment should be able to develop the self-managing and self-monitoring aspect of learning.

Alzaid (2017) did research on "The effect of peer assessment on the evaluation process of student" objective of her research was finding out the effect of peer assessment on the evaluation process of students. The study checked credibility of peer assessments as a suitable tool in the assessment process. She used statistically significant relationship between the assessment of peers to each other, as well as between peer assessment and teacher assessment. Finding of her study were peer assessment can be used as an alternative to conventional methods in the evaluation of the learning process, which helps in the measurement of students achievement from the peers' point of view. Her conclusion is that peer assessment can be used as an alternative to conventional methods in the evaluation of the learning process, which helps in the measurement of student's achievement from their peers' points of view.

2.4 Implication of the Review for the Study

The purpose of literature review is to place each work in the context of its contribution to understand the research problem being studied, describe the relationship of each work to the others under consideration, Identify new ways to

interpret prior research. In my research, literature review helped how the perception is similar or varying from the others. The purpose of literature review is also to find the conclusions as to which pieces are best considered in their argument, are most convincing of their opinions, and make the greatest contribution to the understanding the development of their area of research. It helps to discover the findings of research in the study being conducted in research. It also helps to create new concept from the different people's perceptions. It also helps in data collection and question making for the research.

2.5 Conceptual Framework

Conceptual framework consist of the main feature like aspects, factor and variable of the study. In this research I use the assessment theory: assessment for learning, assessment as learning and assessment of learning.

We all known about educational system in our country that is changing. The result are varying year to year and subject to subject. Particularly in mathematics in each examination students are afraid to mathematics due to anxiety and fear from failure in exam. Innovation of letter grading on assessment system may reduce the anxiety of mathematics as well as less pressure of examination in mathematics education

Assessment determines the quality of students. Traditional perception always causes people to go against any new idea for a change. Math anxiety is cause of every class and every level of students that impact have seen the result of mathematics. There are many causes to obtain less marks in mathematics. Some of the problems are: in assessment system, every other subject have practical except mathematics and it has negative effect in mathematics learning. Mathematics is used in every field but no one realises it like in Science, Engineering, Medical, Architecture, Astrology etc.

but people don't realise it and therefore, in spite of being a globally realized subject, it is not liked by normal students locally. Thus I have concluded in three thematic approach. They are: reduce anxiety of examination, negative effect in mathematics learning, locally rejected globally accepted with the related theories: assessment for learning, assessment as learning and assessment of learning.

The study was to test the theory of assessment for learning, assessment as learning and assessment of learning. Assessment for learning is all about informing learner of their progress to empower them to take a necessary action to improve their performance. This assessment has used to cultivate students active learning skill by asking open ended question also helped student to address these question. Similarly Assessment of learning attempts to categorize the achievement of the learner at the end of certain period of time or unit of course. Its focus is to explore how much student has learned. It used to select the rank of the students' performance at the end of learning unit. Likewise assessment as learning is the use of ongoing self-assessment by students in order to monitor their own learning and making adjustment so that they achieve deeper understanding.

According to the report of CERID (2015) on the topic of "A narrative report of letter grading" the contemporary tools of assessment paper pencil test was highly disgusting. Securing marks of students has biasness due to test mechanism and also there is some degree of error in the measurement of the test paper. Grading is not only the raw score but also attempt to convert it into meaningful description. The purpose of implementing letter grading is to make uniform standard criteria for rating the performance of students in particular area. According to Reddy (2012) letter grading system reduce the score pressure for the student after the examination. According to

her it has disadvantages too like as; it demotivate the student and student tend to perform less.

While many researchers have been conducted to identify the causes of implementing letter grading instead of contemporary evaluation tool, the objective of my research is to find out its impact to the SLC/SEE students in Chitwan district. The existence of implementing letter grading is evident from students, poor performance on mathematics that directly effect on the overall examination. Analysing the participant's opinion that letter grading reduces the examination pressure, weak student has been benefited then the talented one and merit and demerit of letter grading I have analysed formulate the following:

Feedback for Learning

Ultimately, feedback should help learners to improve in a specific activity. When feedback provides correction or improvement in a piece of work, it is valued by learner and acts as an incredible motivator. Assessment as a part of classroom activities is a fundamental process required to promote learning and ultimately achievement. Develop learners' self-assessment skills, so that they are recognize what aspects of their own work need to improve. Assessment is all about informing learners of their progress to empower them to take the necessary action to improve their performance. Assessment should be valid, reliable and effective and it should made student self-regulated learner.

Decreased Performance

Due to letter grading system, SEE preparing student tend to perform less. They know that they will achieve the targeted grade even by making a few mistakes. According to them for securing A+ need not correct the entire question. If they secure 90 above they will get the A+.

Easier Studies

The grading system has made studies easier in many ways. Those who only want to pass can simply make lesser efforts to achieve passing grade. And who want to score higher can divide the effort per task and achieve the overall targeted grade easily.

Demotivation

Letter grading system demotivates the students who perform higher because they stand equal to those making fewer efforts. For instance, grade A will be assigned to all those who made no mistake and those who made few mistake all will stand equal or the same grade. When all that required is a mere pass mark, then need not have urge to outperform others nor do want to excel with the overall grades.

CHAPTER 3

METHODS AND PROCEDURE

In this study, I used qualitative interpretive inquiry as a research approach. Interpretive notion of qualitative inquiry relies on the normative or evaluative fact of the data input, process and outcome that best justifies the total notion of practices in which that concept is used (Plunket, 2013). I used interpretive data to develop knowledge assertions from the interpretation on lived experiences of the participants focusing on assessment process applied in Nepal. According to Riesman (2008) narrative research is inquiry from the humanities in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives. This information is then often retold or restored by the researcher into a narrative. In this research, the researchers establish the meaning of a phenomenon from the views of participants

3.1 Selection of the Study Area

The study area of my research is community school. I chose Narayani Model Secondary School from community school of the Chitwan by purposive sampling. The main goal of purposive sampling is to focus in a non-probability sampling. Sample are chosen by the judgement of the researcher. It is easy to collect data by a sound judgement, saving time and money. I have selected this school because Narayani Model School is one of the model schools of Nepal. There are many students studying with high level of confidence. This school is on my easy access.

3.2 Research Design

Research Design is a plan for a research and provides direction for the research. A design is used to structure of the research. It gives the information about the research participants, methodology of data collection and the theoretical background of researcher for addressing the central research question. Research

design is a plan of the proposed research work. In this study, I used qualitative interpretive inquiry as a research approach. Interpretive notion of qualitative inquiry relies on the normative or evaluative fact of the data input, process and outcome that best justifies the total concept is used (Plunket, 2013). The researcher used interpretive data to develop knowledge assertions from the interpretation on lived experiences of the participants focussing on assessment process which applied in Nepal. I used the narrative research design.

The term narrative comes from Greek word 'narrows' means to know. Narrative inquiry is the process of gathering information for the purpose of explore personal experience through story telling. An exploratory research design explores about the different possibilities of the problems and its solutions. The primary objective of an exploratory research is to insights into problem (Krueger, 1994).

In this research the researcher have taken data based on interview and questionnaire which were focused systematically on study of SLC/SEE students and their present condition. The study was focused on the issues and factors of evaluation system and its impact learning and understanding mathematics of the SLC students.

This research data is based on participants in their own words. This research is focused to find patterns within those words and actions to present those patterns for others to inspect while at the same time staying as close to the construction of world as the participants originally experienced it. This is narrative inquiry design, so that primary data will be collected by informal discussion in related area.

3.3 Tools of Data Collection

The discussion with students as well as their teachers are considered sources of data. The informal discussion, formal interview and opened questionnaire are the major sources of data. Qualitative data had been collected in this study. For the collection of data I have used in-depth interview, reflect journals and open

questionnaire to students. In-depth interview is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program or situation.

3.4 Nature and Source of Data

Clandinin and Connely (2000) define narrative research as “a way of understanding experience involving collaboration between researcher and participator overtime in a place or series of places”. In this inquiry to collect data, several techniques can be used such as interviews, journals, oral recordings, written narratives and field notes. I adopt only interview to collect data. Because interview is the effective way to collect primary data.

The data analysis procedure of this study is of descriptive nature. The narrative method according to Bruner (2002), data may be real or imaginary without losing its force as history. The narrative found in the research reports in this issue can be classified as reports on personal experience. In this research, Secondary levels SEE appearing and studying grade ten were the participants. Interpretive is the philosophical point view of research which concern with making the structures of consciousness and the phenomena that appears in acts of consciousness, objects of systematic reflection and analysis. Daniels (2000) defined interpretive inquiry as a method of learning about another person by listening to their descriptions in their own terms as fully as possible, free of the preconception and interferences. The narrative approach weaves together a sequence of events, usually from just one or two individuals to form a cohesive story. I will conduct in-depth interviews, read documents, and look for themes. Rather it can be presented as a story (or narrative) with themes, and can reconcile conflicting stories and highlight tensions and challenges which can be opportunities for innovation.

Participation observation is a qualitative method rooted in traditional ethnographic research, whose objective is to help researchers learn the perspectives held by study. Tedlock (1991) says qualitative researchers presume that there will be multiple perspectives within any given community. The method is distinctive because in my research, the researcher approaches participants in their own environment rather than having the participants come to the researcher. I used basically student participant observation (students directly and indirectly teachers) to get the actual reflection towards assessment as letter grading.

Qualitative data has been collected in this study. Students only are the sources of data of this study. Teachers have also been informally involved in this research. In depth interview, opinion of student etc. were used for data collection. For the data collection, four students were taken in which two were studying in grade 10 and the rest two were passed-out of SLC examination.

Selection of Research Participants and Location

The participants in this study were four students along with indirect involvement of two Mathematics teachers from Narayani Model Higher Secondary School in Bharatpur. The main reason for selecting this school as a research site was it was easily available for the researchers to collect data. As I have been living in Bharatpur for the last 9 years, collecting data was easy and economical both in terms of time and in terms of money. The four students were Ram, Gita, Hari, Sita and the teachers were Mr. Basnet and Mr. Sapkota (pseudonyms).

Among all participant Ram and Gita were SLC passed-out of the academic year 2072 and Hari and Sita are SEE examinees pass-out of the year 2074. Both the teachers were Secondary level mathematics teachers having more than 20 years of experience of teaching in secondary level.

There are different types of sampling method. Sampling method must be chosen in accordance to appropriateness or research technique quantitative, qualitative and mixed. Not all sampling approaches were regarded to be appropriate. I have chosen a small sample as a representative for the large population in my research.

“...The selection of an appropriate method depends upon the aim of the study. Sometime less rigorous method may be acceptable such as incidental or quota samples, but these methods do not guarantee a representative sample. The most common approach is to use a random or probability samples...” (Marshall, 1996).

In this study I have followed purposive sampling which represents sample of my study. Four students chosen for the data collection because the tool of data collection is interview. It is hard to analyse the interpreted data from the large number of respondent.

Analysis and Presentation of Data

The data obtained from student's opinion with interview were listed in explorative form. I present in narrative way. Various issues such as, terminal examination, student enrolment of examination, previous examinations report students perceptions about assessment the trend of mathematics teaching learning process in the classroom, the behaviour of students in mathematics classroom and the relationship of students among themselves were captured by lively experiences.

Identification of the Participation

Being a narrative research, I used voice record and interview to the participants and used their own words. As I already mentioned, I took 4 participants in this research. I choose two students of grade ten as well as two ex- students as my participant. To get more information, I took in-depth interview with participants and

for more perception; I consulted to the teacher as per need. I gave pseudonyms to the participants as follows:

Ram for student participant (boy of grade ten 2074)

Gita for student participant (girl of grade ten 2074)

Hari for ex-student participant (a boy who passed SLC in 2072)

Sita for ex-student participant (a girl who passed SEE in 2073)

3.5 Quality Standard of the Study

For the quality standard of question, question should be single sentenced.

Question should include the purpose of the study. It should use qualitative word like: explore, understand, discover. It should state the research site. (Cresswell, 2012)

Qualitative research, sometimes also referred to as naturalistic inquiry, is a distinct field of research with its own research philosophy theory and methodology. If our desire is to perform a qualitative study, it will probably be a lot easier to develop our research question if we first become familiar with some of qualitative research's basic principles. The idea of qualitative inquiry as a reflective process underscores the strengths of a qualitative approach.

In this study, I used four quality standards in this research: natural setting, researcher as key instrument, participants' meaning and emergent design to judge the process and product of my inquiry from post modernism, criticism, and interpretivist properties.

Natural Setting

“Qualitative researchers tend to collect data in the field at the site where participants experience the issue or problem under study” (Cresswell, 2013). I did not conduct the conversation by asking them question individually in a contrived situation or place. I conducted the research in their own school, where they were comfortable giving their answers, thus, revealing the truth. I conducted face to face conversation

with the participants over a period of time. After formulating the conversation, I gathered the data by actually talking to them and observing their behavior within their own context.

Researcher as the Key Instrument

“Qualitative researchers collect data themselves through examining documents, observing behavior, or interviewing participants” (Cresswell, 2013). Dependence of the research in primary sources, collected by researcher itself is one of the standard known as researcher as the key instrument. In this qualitative research, I collected data myself through examining documents, observing behavior, interviewing participants and not primarily relying on other sources of data.

Participants’ Meaning

In my research, I extensively tried to present what views the participants had about grading system and their implementation. I asked questions without giving the pre-established clues for the sake of revealing their innate opinion.

Emergent Design

I adopted emergent design in my research. It means that the initial plan for research cannot be tightly prescribed, and some or all phases of the process may change or shift after the researcher enters the field and begins to collect data (Cresswell, 2013). In my research, I have changed some of the phases of the process in order to better learn about the problem and issues from participants and to address the research to obtain meaningful information. For example, although formally I included 4 student participants in the research, the two teachers were also included informally afterwards. Similarly, some of the extra questions were also asked to later participants to collect more precise information.

CHAPTER 4

ANALYSIS AND INTERPRETATION

To get correct information, I had to build rapport with my participants. The establishment of empathy and rapport is essential if respondents are to disclose information to interviewer and ideal thesis done over a period. Before taking interview, I did some of the things or spent some days to build trust with my participation so that I could get the correct answer from them.

Among different strategies of making interpretive inquiry employed in-depth interview for this study. As a qualitative researcher I attempted to understand the world from the participants' point of view to "unfold the meaning of their experience, to uncover their lived world" (Kvale & Brinkmann, 2009). Then researcher generated data for participants through one – one in depth interview. Researcher recover their personal stories about the assessment system.

At first I informed to the mathematics teacher of the selected school before collection of data. Then I visited school and met the participant. I took her verbal consent for participation from them. I recorded each interview in a voice recorder. Each interview with the participant lasted 30 minutes. After each interview, I transcribed the recorded data in English. The transcribed text was analysed for meaning and theme. Reissman (2008) suggests that transcription and analysis cannot be separated because of transcription is arranged in two way to support researcher. The researcher read and reread each transcript and coded data with meaningful units under different themes.

I choose the community school, which is nearer to me. I asked to the teacher about student. I choose out spoken student as information of teacher of the school. That is why I got more information with them. Furthermore, I met them repeatedly

talked and gossiped with the participants that helped to talk easily their opinion to me. That support to rapport to my study. As I am a learner of contemporary society, I talked to the participants about comparison of examination, homework assessment particle work and result of earlier examination. After talking about their personal matter educational system, evaluation system their score about pervious examination, they were close to me and good relationship was established in order to get valid data. Without active participation of students, my study would not have gone to a decision. The lack of interest of student in the subject matter is one of the barriers.

It is said that “every traditional thinking is against change always poses threat to any new idea.” During my learning journey I found more comments against letter grading that pushed me research on this subject in the process of developing research agenda and topic. In my project I developed some collection of queries. The queries formed as question of interview. My study was student centred. I developed some question believing that question address to find out the objectives of my research agenda. Some of the representative question for the conversation to student and me (Appendix I).

In this chapter, I have expressed students’ perception exactly according to the addressing of the question. This chapter begins with the students’ perception with a brief overview of theory related to the assessment for learning, assessment as learning, assessment of learning. On this journey my first interview participant was Ram (pseudonym) studying at grade 10 at Narayani Model School.

Not Exact Scoring

Is letter grading system reflecting student’s true intelligence? Ram gives his opinion. *“A 3 hours examination cannot represent a student’s true ability”*. Gita replied that letter grade create confusion among people. Gita’s perception is that the

letter grades does not reflect student's exact performance as there is no use of numbers. So students cannot guess how much well did they perform in the examination.

Some advantages are Weak student scoring grade lower than D also go for further study. Parents of weak students need not get worried as the students still has chances in other fields. A person can also get employed by learning skills. On the other hand, there are some disadvantages like: The marking can be real or fake. The students cannot be ranked as 1st, 2nd, 3rd etc. Weak students are benefitted but talent students are not benefitted. Copy checking may not be accurate. Examination score cannot be observed. Although students get passed in exam, human resource is quantitative but not qualitative. Teachers won't be strict as before. Exercise and homework are given less.

“An alphabet cannot explain the inner knowledge gained by a student. There is no easy way of judging a student's level of performance and knowledge in the examination. Letter grading is not an exact scoring system and it is not an accurate representation of the performance and the knowledge gain. An alphabet cannot explain the inner knowledge gained” (Reddy, 2012).

“Assessment of learning refers that grading usually occurs at defined key points during a unit of work as the end of unit and used to rank the grade of students” (Harlen, 2007). Assessment should be transparent interpretation. (Rana &Prakash 2075) focus that the grading system should be reliable. It should use uniform standard criteria for rating the performance of students. It should clearly indicate the performance of students in particular area.

Student interpret the grading system in wrong way. They expect grades to be the direct substitute of percentage secured by them, which is not very true. In fact, in

grading system, numbers are converted into grades by one criteria. Then after, the grades are converted into grade points which are confined in (0-4) scale. In order to calculate GPA, the grade points are averaged. If average grade needs to be calculated, the GPA is converted into grades, by the same method varying only in the case marks range now becomes GPA range. In short, the final GPA is calculated by averaging the range of marks secured by the students, where the upper fixed point replaces range of marks, and confining it in the scale of 0 to 4.

For example if a student secures 73 in mathematics, it is converted in to grade as B+ and grade point as 3.2. If we convert the number 3.2 confined in (0-4) scale into (0-100) scale, the number becomes 80, which is the upper fixed point of range (70-80) which stands for B+ grade. Thus, indirectly, GPA is actually the average of the upper fixed points of range of the marks range and not the average of actual marks obtained by students. Thus if we convert GPA into percentage, the result comes out to be a higher number than the actual percentage secured by students. Thus, it is untrue that GPA is (0-4) scale counterpart of (0-100) scale percentage. Again if an students secures 3.25 as GPA, he will be getting A as their grade which normal students interprets as he is scoring percentage between 80% and 90%, but the fact is there is very low probability that he has even scored 80%. His possible percentage range is (72.5% to 82.5%) and most likely to have been scored around 77.5%.

Before the grading system, the marks were directly expressed in numbers but now it is expressed in range, which is not definite. Thus the grading system doesn't represent the exact scores but it represents the range of scores the student has attained.

Reduce Anxiety of Examination

One of the participant Gita (pseudonym) said to me before grading system, more time used to be given for subjects like math and science. So it used to hamper other subjects. But now, if the target is to score A+, we need to progress at all

subjects. So, all subjects should be given equal importance. There is no fear of getting failed in exam. So this system reduces the anxiety of students.

It is generally accepted that assessment clarifies the rank of student. Low performers students feel anxiety about examination. Gita expresses her feeling “*there is no fear of getting failed in exam. Therefore, the grading system reduce anxiety of exam. It said that it reduce exam pressure for students.*” However, Hari seems that “Students do not need to worry about difficult subjects if they don’t need those subjective for further studies. Furthermore if getting low score in mathematics, they can also take a re-examination for increasing their current grades for better grades. But from Sita’s experience, the grading system makes the assessment easy as in order to score A+, 90+ marks is just enough, and we don’t need to push ourselves towards 100 marks and therefore consuming more time.

Mr. Basnet claims that “*grading system decreases overall pressure to the mathematics teacher*”. Because for getting 10 marks students should be correct 3 questions. If there is same realized the score of 90 and 100, then there is no need to cover difficult question of 8 to 9 marks, which consumes more time (Reddy, 2012). The letter grading Assessment system takes the pressure off from the students at certain levels. This system clearly discriminate from the average and below average type of students.

Anxiety in an examination is a common thing even though there are many disadvantages of assessment system as a letter grades it reduces the anxiety of exam. Every subject are of equal importance. However, it does not reduce exam pressure, as the competition is as same as before. Nevertheless, in particularly for mathematics, it reduces exam pressure. Students need not focus in mathematics if it does not fall under his/her further study subjects.

Anxiety appears on a student before examination when he/she is unsure and worried about the results of examination. However, with the application of letter grading system, the student need not worry about failing the examination, so somewhat the pressure of passing the examination is reduced. Nevertheless, the students who secure good marks have same level of anxiety as he has to secure good grades. Again, for the students, who are excellent on mathematics, they need not worry about scoring the full marks as the marks range from 90 to 100 have save value. Thus with the application of grading system, the anxiety of examination appears to be decreased.

Negative Effect on Mathematics Learning

According to Ram's perceptions, there is no any extreme differences for mathematics learning based on evaluation system. Gita feels some differences they are" *monthly test were conducted less frequently, homework are given less, classwork and homework are less checked*". Hari expresses his feeling that after using letter grading, the mathematics teacher did not teach as seriously as before. They were teaching as if it were an easy subject. Then not focusing in obtaining high score. The teacher started to feel that teaching everything thoroughly is not important as just getting A+ is much easier than securing near 100 full marks.

According to Chitra Reddy grading system doesn't provide an opportunity to make the child think outside the box or freely develop the thinking about any inkling of an idea or get involved with any of the intellectual speculation. However this method is widely regarded in many of the school across the world and kept as a strong and a viable medium to adjudge a child's grasping and reciprocating ability by grading them. The primeval type of appraisal was by the marks where the marks for all the questions were totalled to get grand total marks.

But Sita had different view. According to her, *“because of the hardness of mathematics, the other subjects also used to get affected.”* She said that after application of grading system, she did not to focus al lot of time on mathematics. She could continue her further studies despite getting low marks on mathematics. Her future education will not be blocked by just scoring low marks on mathematics. If there were no pressure to score passing marks in mathematics, she would be able give more time to her interested subjects, from which she can show her excellence.

From Ram’s perspective, *“students are going poorer on mathematics as they do not effort as much as before”*. Due to the implementation of letter grades, students are not being serious to get better marks in maths. Students think that getting good marks in maths is not important. Those brilliant students who used to secure about full marks in mathematics are now happy in just the marks around 90, which gets them A+ rank. For those students who are not so brilliant in mathematics, they just wanted to secure just minimum marks for their target grade, but they did not like to be left out by missing few marks to next grade. In the case of poor students who had poor performance in mathematics, they were happy in the grade they were. The difference is that they can still pursue higher educations and make career despite getting poor marks in mathematics. However, it will overall result in poor quality of mathematics education.

“Students perception of the effect of a grading a course in work integrated learning and assessment is an evaluating program” (Reddan, 2012). Assessment promoting learning progress. The purpose of grading system is to rate the students’ performance in such a way that its quality can be determined. “Assessment learning mean that assessment is used to plan future learning goals and pathway for students”. (Harlen, 2007). Assessment for learning reflect a view of learning in which

assessment helps the student to learn better rather than to achieve better marks. Letter grading system make difference in mathematics teaching and learning activities. In this way, weak students will be more benefitted than the talented ones.

Grading usually occurs at defined key points during a unit of work as at the end of unit. It may be used to rank of grade of students.” Assessment should be transparent interpretation and should be reliable. It should use uniform standard criteria for rating the performance of students. It should clearly indicate the performance of students in particular area” (Rana & Prakash 2075).

Assessment of learning is used to plan future learning foals and pathways for students (Harlen, 2007). It is dependent on the validity and reliability of activities. And assessment as learning encourage students to take responsibility for their own learning. Grading system identifies the weakness and strength of students. Assessment informs student’s achievement letter grade motivate student so that the foal can achieved.

Ram says that “*mathematics is important in every field of usage. But since, people take it as a difficult subject, it is rejected locally*”. Similarly, Gita and Hari think that the mathematics that we learn in our school is enough for daily life usage. They think that the higher mathematics are only for studying. Hari thinks that the higher mathematics are mainly used for research purposes that have nothing to do with our household uses. Similarly, Sita thinks that mathematics subject is not taught practically in our country. It is taught by the means of different formula, which is not directly understood. Those formula and symbols are even difficult to remember and absurd in using them. Thus, normal students do not understand the beauty of mathematics.

Mathematics is Locally Rejected but Globally Accepted

On my question what are the advantages of letter grades? Sita replied that *“the letter grading system has more benefit upon weak students than talented. Grading system also affects Mathematics education adversely but is dependent on the psychology of teachers”*.

But Ram’s perceptions is that *“mathematics is used for research works than the household uses. The basic mathematics that we learn in our school is enough for the most of the household uses. Higher level mathematics is important for higher studies and different scientific and other researches only”*.

Assessment as learning means that involving teachers and students to create learning goals for encouraging teaching and learning activities. Assessment as learning encourages self-assessment and reflection. (Gardner, 278). Mathematics Learning is not just for knowledge but even though to develop be practical implementation. Thus the uses of mathematics is in every field like engineer, architecture, doctor etc.

Ram says that mathematics is important in every field of usage. But since, people take it as a difficult subject, it is rejected locally. Similarly, Gita and Hari think that the mathematics that we learn in our school is enough for daily life usage. They think that the higher mathematics are only for studying. Hari thinks that the higher mathematics are mainly used for research purposes that have nothing to do with our household uses. Similarly, Sita thinks that mathematics subject is not taught practically in our country. It is taught by the means of different formula, which is no directly understood. Those formula and symbols are even difficult to remember and absurd in using them. Thus, normal students do not understand the beauty of mathematics.

Assessment of learning is used to plan future learning goals and pathways for students (Harlen, 2007). It is dependent on the validity and reliability of activities. And assessment as learning encourage students to take responsibility for their own learning. Grading system identifies the weakness and strength of students. Assessment informs student's achievement letter grade motivate student so that the goal can achieved.

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary and Findings

The purpose of this chapter is to present the summary of the study. The major findings and discussion of the study were summarized, conclusions are drawn and some recommendations are made. This chapter leads on the finding of the study. I have tried to show findings of the study in few paragraphs.

Students are the source of data of this study. The driving force behind my study was focused on helping all students succeed in meeting standards. Grading system is not only a reporting system for judging the final performance of an academic program; it also ensures the quality of implementation of that particular program. It requires a reliable and valid examination system with the standardization in test preparation, its administration and standardization in the scoring and interpretation of the test score. It ensures not only the quality of examination system but also the implementation of curriculum.

This study is focused on helping all students succeed in meeting standard. My involving mission forces to use a new vision of assessment that can hit the well spring of confidence, motivation and learning potential that resides within every student.

Several countries have introduced letter grading for developing students' performance. This assessment builds students skill and helps them for future skill. Educations have changed the culture of their assessment system for helping students feel safe and develop self-confidence.

The study was concerned with the narrative analysis of secondary level students in SEE/SLC examination. With the research question were related to the

grading system as an assessment. Before collection the data I had to build rapport with participants and makes easy to conversation. The establishment of rapport was essential if respondents are to disclose information to interviewers and this was done over a period.

The purposive sampling was used to determine the sample for the study. Thus, the sample of the study was limited to Chitwan district since respondents from model schools of Chitwan have taken due to different constraints. A class ten student from public school, a SEE appeared student from public school.

Grading system does not provide an opportunity to make the child think out of the box or freely develop the thinking about any inkling of an idea or get involved with any of the intellectual speculation. This method is widely regarded as a strong and a reliable medium to adjudge a child's grasping and reciprocating ability by grading them (Reddy, 2012) The primeval type of appraisal was by the marks where the marks for all the questions were totalled to get grand total marks. There are many types of grading systems available now. Right from providing an O grade to A grade, to providing a 'pass' or 'fail' alone, many standards based grading systems are incorporated in various schools across the globe according to their own needs and desires. Reviewing literature shows there are many people who declare there are many advantages of modern educations system and there are others who say the complete opposite. After the analysis of the study the major findings of the study are mentioned below

- Grading system has reduced exam phobia from the majority of the students.
- Every participant believes that letter grades are more standard than the numbers.
- According to a student, not all the content of mathematics is taught as some teachers think that the students will not be failed in this new system.

- Three out of 4 participants were not much clear about grading system.
- The entire participants accept that the traditional thinking against change possesses threat to new change.
- Three participants agreed letter grades is more standard than number and one participant did not know about standard measure.
- Three participants said the teacher gave less priority for formative examinations to mathematics and one student said there is no difference of mathematics teaching using on grading.
- Eradicated the subside report of SLC/SEE examine.
- The number of dropout students has decreased. (Lamichhane, 2072).
- Grading system seems to support that mathematics is globally accepted but locally rejected subject.

5.2 Conclusion

Before implementation of letter grading system, the suicide rate immediately after SLC results used to be very high. At that time, the SLC examination had great importance. The assessment system was based in pass-fail system and the students who passed would get great reputation whereas the students who failed would be greatly humiliated. They even did not hesitate to commit suicide on such a great humiliation. Although, the students can be failed in one of the subjects, they could do better in another subject but their chance was completely discouraged. Therefore, the SLC examination was even called 'Iron Gate'. We cannot tell that the suicide disease will not transmit to lower levels too. Therefore, realizing this fact, the letter grading system was implemented.

Balkumari-based Capital College and Research Centre Principle Hari Chandra

Lamichhane said that SLC is a foundation stone for students in Nepal. The national

level examination provides a sense of competition among all the students. Now, the SEE examination will be as same as the district level examination (Grade 8), decreasing its importance and students' efforts. With the less effort from the students. It can be said the quality of education might also decline

Generally, formal education system can be classified into three distinct levels. They are basic, secondary and higher level. The purpose of basic education is to equip the student's by the basic abilities, which are essential for his/her normal functions in the society. Secondary level is preparatory for higher education. The secondary level assessment should help in the study of higher-level education. Letter grading system categorizes the student in the continuum, which have the qualities of student. A+, A ... are more powerful in comparison to the I, II, III division and fail system in terms of discriminating power and in to the percentage system in terms of interpretation capacity. Since the change in education system of Nepal, 12th class board exam will be called SLC examination, and 10th class board exam is now renamed as SEE.

Grading system gives clear indication about the quality of student's performance and adds the level of different subjects, educational and training institutions can select candidate according to their specification based on these information. Grading system is also a source of intrinsic motivation for the learners. It can encourage the students for the achievement of higher grades.

On the other hand, there is a great challenge for ensuring validity of assessment system in secondary level due the lack of specification grid. Scoring of subjective tests is a great threat for the implementation of qualitative grading system. Overall, traditional thinking against change always possesses threat to any new idea.

Previously, mathematics teachers used to prioritize every question in exam for securing good marks. But after implementation of grading system, student securing

marks 90 and 100 fall under same grade i.e. A+. Thus, teacher now advise students to secure just those marks, which are just sufficient to obtain their optimum grade. In mathematics, out theorem question is generally considered the harder one. Thus, students and teachers tend to skip those questions as they can still get good grades, if all other questions are correct. As a result, most students do not attain the skill at their optimum level, which are required for critical thinking in mathematics.

Grading system was implemented with the thinking that it will improve overall education system of Nepal. However, since it was interpreted in wrong way, students started to think that they do not need to learn as much as before. Thus, it resulted in overall decrease performance of teachers and students in teaching learning activities in one side.

5.3 Recommendation for Further Research

Shifting towards letter grading system has become urgent to link our academic program to the global practice. In situation for the implementation of a sound grading system, the following recommendations are presented:

- Ensure not only the assessment system but also the implementation of the curriculum.
- Ensure the standardization administration of the test.
- Ensure that the grading system is used from class 8 and even before if possible.
- Letter grading should be able to calculate the skills and concept that a student needs to improve.
- Ensure the reliability and validity of exam.
- The teaching and learning should be motivational to students.
- Ensure letter grades to be accurate representation of the performance and knowledge gained by students.

- Ensure that it is an exact scoring system.
- Letter grades should improve quality of students not the quantity of students.
- The letter grades should motivate the students in his/her study.
- The public awareness about letter grading system should be created by conducting research from time to time.

REFERENCES

Academic grading in India (2018, March 3). Retrieved from:

https://en.wikipedia.org/wiki/Academic_grading_in_India Web on 3rd March 2018.

Alzaid, J. M. (2017). *The Effect of Peer Assessment on the Evaluation Process of Students: International Education Studies, 10*, Saudi Arabia: Canadian Center of Science and Education.

APEID. (1978). *Study group meeting on examination report*. Bangkok: UNESCO Regional office for Education in Asia and Oceania.

Baral, S. K. (2008). *A Study of the Problems Faced By Mathematics Teachers in Implementation of Compulsory Mathematics Curriculum in Grade IX*. Master's thesis; faculty of education T. U., Kirtipur.

Bhatta, S. D. (2004). *A Descriptive Analysis of the Disparities in School Performance in the SLC Exams. SLC Study Report 1*. The Education Sector Advisory Team, Ministry of Education and Sports, Kathmandu, Nepal.

BPEP. (1997, May 15). *The Basic and Primary Education Master Plan for 1997 – 2002*. Retrived from: https://www.moe.gov.np/assets/uploads/files/BPEP_Masterplan_1997-2002.pdf

Brown, S. (2005). *Assessment for learning. Learning and teaching in higher education*, (1), (pp. 81-89).

Brown, S. (2005). *Assessment for learning: Learning and Teaching in Higher Education* 44(3) differentiated instruction published city: UK.

Bruner, J. (2002). *Atos de significação [Acts of Significance]*(2nd ed). Trad. Sandra Costa. São Paulo: Artmed.

- Carl & Boyer. (1968). *A history of mathematics*. New York, USA: John Willey and Sons
- Chhetry, K. (2015). "Letter Grading System in SLC from this year." *The Himalayan Times*. Kathmandu: Kantipur Publication, Nov 23, p.10.
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry: Experience and Story in Qualitative Research*. San Francisco: Jossey-Bass.
- Creswell, J. W. (2007). *Qualitative inquiry and research design choosing among five approaches* (2nd ed.). California: Sage publication Inc.
- Creswell, J. W. (2009). *Research design: qualitative, quantitative and mixed method* (3rd ed.). Thousand Oaks, CA, US: Sage Publication Inc.
- Creswell, J. W. (2013). *Research design: qualitative, quantitative and mixed method* (4th ed.). Thousand Oaks, CA, US: Sage Publication Inc.
- Dylan, W. (2009) *Assessment for learning: why, what and how*, Institute of Education, University of London.
- Earl, L., & Katz, S. (2006). *Rethinking classroom assessment with purpose in mind: Assessment for learning, Assessment as learning, Assessment of learning*. Canada: Manitoba Education.
- Harlen, W. (2007). 'Holding up a mirror to classroom practice', *Primary Science Review*, 100, 29–31.
- Kahl, S. (2005, September 21). *Where in the world are formative tests? Right under your nose!* Education Week, 25(4), 11.
- Krueger, R. (2000). *A practical guide for applied research*. Thousand Oaks, CA: Sage Publications
- Kvale, S., & Brinkmann, S. (2009). *Inter Views: Learning the craft of qualitative research interviewing*. Los Angeles, CA: Sage Publications.

- Lamichhane, M. (2072). *Grading ra letter grading, parichaya ra prayog* [Introduction and Use of Grading and Letter Grading] 87, Lalitpur: Shikshak Masik.
- Linn R. L., & Gronlund, N. E. (2003). *Measurement and assessment in teaching* (8th ed.). Singapore: Indian Branch Pvt. Ltd.
- Luitel, B. C., & Taylor, P. C. (2006). Envisioning transition towards transformative mathematics education: A Nepali educator's autoethnographic perspective. In J. Earnest & D. Treagust (Eds.), *Education reform in societies in transition: International perspectives* (pp. 91-109). Rotterdam: Sense Publishers.
- Luitel, B. C., & Taylor, P. C. (2009). Defrosting and re-frosting the ideology of pure mathematics: An infusion of Eastern-Western perspectives on conceptualizing a socially just mathematics education. In P. Earnest, B. Greer, & B. Sriraman (Eds.), *Critical issues in mathematics education* (pp. 125 -152). Charlotte, NC: Information Age publishing.
- Main, J. B., & Ost, B. (2014). *The Impact of Letter Grades on Student Effort, Course Selection, and Major Choice: A Regression-Discontinuity Analysis*, The Journal of Economic Education, 45:1, 1-10, DOI: 10.1080/00220485.2014.859953
- MOE. (2028). *The National Education System Plan for 1971-76*. Extracted from: www.moe.gov.np.
- Osborn, L. P., & Osborn Family Papers. (1986). *Augustana Special Collections, Rock Island, Illinois*. Published city: United States.
- Panthi, R. K., Luitel, B. C., & Belbasi, S. (2018). *Teachers' perception of social justice in mathematics classrooms*.

- Plunkett, D. (2013). Dworkin's interpretivism and the pragmatics of legal disputes. *Legal Theory*, 19, 242–281.
- Rana, J. B., & Prakash S. (2075). “Implication of Grading system in higher education” *Letter grading system: Implication and its Impacts in Higher Education*. (Page 14-15) Kathmandu: CERID, Tribhuvan University (TU).
- Rastriya Samachar Samiti. (2015, Dec 12). Problems could appear in SLC letter grading system. *The Himalayan Times*. Retrieved from <https://thehimalayantimes.com/kathmandu/problems-could-appear-in-slc-letter-grading-system/> Web on July 15, 2018.
- Reddan, G. (2013). To grade or not to grade: Student perceptions of the effects of grading a course in work-integrated learning. *Asia-Pacific Journal of Cooperative Education* 14(4) extracted from: <https://files.eric.ed.gov/fulltext/EJ1113789.pdf> web. 3 Jan 2019.
- Reddy, C. (2016, July 15). *Grading System in Education: Advantages and Disadvantages of Grading System in Education*. Retrieved from: <https://content.wisestep.com/advantages-disadvantages-grading-system-education/>
- Reissman, C. K. (2008). *Narrative methods for human sciences*. Thousand Oaks, CA: Sage Publication Inc.
- Simon, M. (2011). Analysis of qualitative data. *Dissertation and Scholarly Research Recipes for Success (2011 Ed.)* Seattle, WA, Dissertation success, LLC.
- Singh, G. B. (2014). SLC grading system, *Gorkhapatra National Daily* 27 march, p. 5
- Singh, G. P. (2073). *Grading system- conceptual orientation, Letter Grading: Summary, Letter grading System: Implication of Grading System in Higher Education*. (P 7) Kathmandu: CERID, TU

SLC Result. (2072) Understanding Grading System with Sample Grade Sheets (2016, June 15). Retrieved from: *edunepal.info/blog/SLC-result-2072-grading-system.html*

Thorndike & Christ. (2011). Reynolds, Livingston & Wilson, 2011; Wise, Taylor, Felicia, Kristina, Thacker, Schultz, Wilson and Dean, 2007. Creswell, 2012.

Thorndike, R. M., & Thron-dike-Christ, T. (2011). *Measurement and Evaluation in Psychology and Education (8th ed.)*. New Delhi: PHI.

Was Augustana the first school to use letter grades? (23rd June 2018) retrieved from: <http://augustana.net/x21668.xml>

Wells, J. (2017, June 10). *SLC Result History in Nepal* Retrieved from gbsnote.com/slc-result-history-nepal/.

APPENDIX I

CONVERSATION

Conversation-1

Our interview conversation was as follows:

Me: Can you please tell me how much do you know about letter grading system?

Ram: Letter grading system is the system of representing score secured by students in letter grades from A to E. Our second terminal exam result was also published in grading system. It was uneasy for me to look my result as I had the habit of looking my result in percentage. But that experience provided me a great chance to learn about grading system and its process.

Me: Do you think traditional thinking against change always possesses threat to any new idea?

Ram: Yes, I think. It is actually true that the traditional thinking has some threat to new change. It is difficult to adapt change when traditional thinking is already being prevailed. There is difficulty in implementation of new change so it can be taken negatively. So, to evaluate its good or bad aspect is not possible unless it is applied for at least 5 years or more.

Me: How to reduce negativity about grading system?

Ram: First, everybody must be made clear about grading system. Then, it should be implemented properly. People should be made aware about the advantages of it.

Me: Do you think Letter grading is more standard instead of numbering?

Ram: Yes, I think it is more standard than numbering system. It is made on the concept that the students scoring similar score has similar intelligence and knowledge. But it is not always true. For example we know that 89 and 90 marks are similar number but lie on different grades and 90 and 100 marks have huge gap but are placed on same grade. But for grading system, some interval of numbers should be taken as a single grade. It should be noted that a 3 hours exam cannot represent a student's true intelligence and knowledge. But if 3 hours written exam is allowed to represent the student's result in score sheet, grading system is definitely better than number grading system.

Me: Is letter grading system reflecting student's true intelligence?

Ram: As I mentioned earlier, a 3 hours written exam cannot represent a student's true ability. But if letter grading system is compared with number grading system letter grading system is better. Letter grading system represent each subject grade separately which will be used be as base for further study. GPA is also available which the average of each subject's grade point is but it is rarely used for further studies.

Me: Does it really reduce anxiety and pressure of examination?

Ram: Yes, it reduces for average student's anxiety and pressure of examination. But it can be taken in any way. So, some students may think they need to score high grade in every subject to score good grade and some people can take it negatively that they will not be failed by scoring low marks and there is no need to study. Similarly, it also reduces pressure of students. Previously, students needed to score more marks in some subjects especially math in order to obtain greater

percentage but in letter grading system this is eliminated. The marks scored between 90 and 100 have same value so the remaining time can be utilized in other subjects.

Me: What differences did you find in mathematics learning after introduction of letter grading system in Nepal?

Ram: I didn't find any such differences except that teacher are making aware that the exam is going to be conducted in grading system.

Me: How did you know all this?

Ram: From teachers, friends, magazines, books, newspapers and internet.

Me: But I talked informally to your friendly some of your friend said letter grading is not good for final examination result. They said if it was implemented from beginning class it would be better. How do you clarify it?

Ram: Yes, I agree with you that it should be implemented from beginning but it has already been late. If we start from beginning now, we have to wait for 10 years and it would be very late. It is just one step of development in the education system of Nepal and I think that it shouldn't be taken negatively otherwise it will be ended without getting started.

Me : Mathematics is globally accepted but locally rejected subject. What do you think?

Ram : I think this is true. I feel that mathematics has great importance in every field of usage but people find it difficult. Hence, people do not like it. Thus, it is rejected locally.

Conversation-2

Let me include a part of conversation with second participant Gita

(Pseudonym) studying at grade 10:

Me: What is your perception about grading system?

Gita: I don't know much about grading system. I just know that it is a system of evaluating of result of examination which is being applied in SEE examination.

Me: What are the advantages and disadvantages of grading system?

Gita: Some advantages are Weak student scoring grade lower than D also go for further study. Parents of weak students need not get worried as the students still has chances in other fields. A person can also get employed by learning skills. On the other hand, there are some disadvantages like: The marking can be real or fake. The students cannot be ranked as 1st 2nd 3rd etc. Weak students are benefitted but talent students are not benefitted. Copy checking may not be accurate. Examination score cannot be observed. Although students get passed in exam, human resource is quantitative but not qualitative. Teachers don't be strict as before. Exercise and homework may be performed at lesser rate.

Me: Do you think traditional thinking against change always possesses threat to any new idea?

Gita: Yes. Old fashioned idea may not be always good. New changes should be made from time to time.

Me: Does letter grade reduce students' anxiety of examination?

Gita: Before grading system, more time used to be given for subjects like math and science. So it used to hamper other subjects. But now, if the target is to score A+, we need to progress at all subjects. So, all subjects should be given equal importance. There is no fear of getting failed in exam. So this system reduces anxiety of students.

Me: What differences did you find in Mathematics learning after introduction of letter grading system in Nepal?

Gita: I found some differences like, monthly test are conducted less frequently, homework are given less, class work and homework are less checked etc. Unit test are not conducted as before. Teachers are not giving much effort as before.

Me : Mathematics is globally accepted but locally rejected subject. What do you think about this?

Gita : I think that the mathematics that we read up to grade ten is sufficient for us. The maths that we learn up to this grades can be used in every daily life and household uses. We don't need to learn more mathematics for our uses. The higher level mathematics are only for studying.

Conversation-3

My next participant was Hari (Pseudonym) SLC pass out of 2072 BS. Grading system was first time applied on 2072 SLC and then after SLC was postponed to class 12 and, class 10 board exams was replaced with SEE. My interview with Hari was as follows:

Me: Can you please tell me how much do you know about letter grading system?

Hari: I know little about grading system. It has some advantages for weak students and some disadvantages for talented students. The students scoring at least B grade can read science but they have not been able to perform well in higher secondary education.

Me: Does letter grading system represent your score better? How can you say so?

Hari: I don't think so. The number secured in copy checking and the GPA score do not match with each other. If GPA score is converted into percentage and compared with aggregate percentage, the GPA's percentage is greater. So the teachers think that they don't need to give much effort for getting much percentage. So teaching and learning activities becomes slower and low quality. It also creates confusion among people.

Me: Do you think Letter grading is more standard instead of numbering?

Hari: I don't know about the base of standard of this type of grading system. But I think that it is standard so that it is being applied all over the world.

Me: Does letter grade reduce students' anxiety of examination?

Hari: In this type of grading system, we can study interested happily. We don't need to worry about difficult subjects if we don't need those subjects in further studies. We can study other subjects if we are weak in Math and Science. We can also upgrade our grade with re-examination. It creates skilful and capable human resource.

Me: Does letter grading system reduce students' examination pressure?

Hari: Yes, it does. Everyone wants to get high grade. In order to obtain high grades, we need to focus on all subjects.

Me: What changes did you found after implementation of grading system?

Hari: There are several changes after this system has been implemented.

Teachers are not working hard as before. Teachers are teaching topics from simple to complex. Teachers are also found to be skipping difficult topics too.

Me: What differences did you find in Mathematics learning after introduction of letter grading system in Nepal?

Hari: I found several differences in mathematics learning after introduction of letter grading system. While teaching simple chapters were taught at first which hampered the teaching time of other complex chapters.

Long time was spent in simple chapters and as a result, no time was left for complex subjects. Mathematics was not taken seriously and taught like other easy subjects. It was also not focused in obtaining high score.

Me : Mathematics is globally accepted but locally rejected subject. What do you think about this?

Hari : I think much of the mathematics is used for research works than the household uses. The basic mathematics that we learn in our school is enough for most of the household uses. Higher level mathematics important for higher studies and different scientific and other researches only.

Conversation-4

My next participant was Sita (Pseudonym) of grade 11. She is an SEE pass out of 2073 BS. The interview with her is as follows:

Me: Can you please tell me how much do you know about letter grading system?

Sita: I don't know much about grading system. I think it is just one of the systems of publishing result which is being applied in SEE examination.

Me: Do you think traditional thinking against change always possesses threat to any new idea?

Sita: Yes, but not always. It is difficult to adapt a change at first but it will be normal with time.

Me: Do you think Letter grading is more standard instead of numbering?

Sita: Yes, because if it is not standard, why would it be adopted in our country.

Me: Are letter grades reflecting the students' intelligence?

Sita: I don't think so. It is because the grading system doesn't contain numbers. So, we cannot guess how much well we performed in the exam.

Me: Does letter grade reduce students' anxiety of examination?

Sita: Yes, it reduces the anxiety of exams. For A+ 90+ marks is enough. We don't need to push towards 100 as before. So we can utilize the remaining time in other subjects and perform well.

Me: Does letter grading system reduce students' examination pressure?

Sita: No, it doesn't. The exam pressure is same as before. Although percentage is increased, the competition is same as before.

Me: Does letter grading system represent your score better? How can you say so?

Sita: No, it does not. The marks 90 and 100 are included in same grades.

These marks make huge differences in percentages but it does not make any difference in grades. It creates a lot of confusion in marks and grades. Therefore, it does not represent the scores better.

Me: What differences did you find in Mathematics learning after introduction of letter grading system in Nepal?

Sita: I feel mathematics as difficult subject. Because of mathematics, others subjects also used to get affected. In my previous before SEE examination, my result was negatively affected due to mathematics. Because of letter grading system, I did not need to focus on mathematics much. My future was not spoiled by this subject. I had my future secured because I had time to read other interested subjects instead of improving my mathematics. However, I hardly could get 'A' in GPA score because of mathematics.

Me : Mathematics is globally accepted but locally rejected subject? How do you interpret this?

Sita : Mathematics is taught using formulas. It is not taught practically in the context of Nepal. Although mathematics is used everywhere, it feels like it is not used anywhere. For example, the simple arithmetic like calculating bills, measurement and geometry like different shapes and size, tessellations and tiles are used frequently in daily life. Mathematics is important for those who take subjects in which mathematics is necessary like engineering, science but for those who don't secure even good marks, mathematics is not much important.

Further, mathematics language and symbols are also difficult to learn.

Thus, for further studies I would not choose mathematics.

The above interview conversation clarifies that, grading system reduces anxiety of exam. Every subject can be given equal importance. However, it does not reduce exam pressure, as the competition is same as before. In Mathematics, it has mixed results. Students need not focus in mathematics if it does not falls under his/her further study subjects. On the opinion of respondent, Letter grading system is a good system. It should be clarified to every people to avoid confusion. It is one step of development in education system and should be taken positively. The above interview clarifies that, the letter grading system makes differences in mathematics teaching and learning activities. In this system weak students get benefitted but talented students are not benefitted

APPENDIX II

QUESTIONS ASKED

1. Can you please tell me how much do you know about letter grading system?
2. Do you think traditional thinking against change always possesses threat to any new idea?
3. How to reduce negativity about grading system?
4. Do you think Letter grading is more standard instead of numbering?
5. Is letter grading system reflecting student's true intelligence?
6. Does it really reduce anxiety and pressure of examination?
7. What differences did you find in mathematics learning after introduction of letter grading system in Nepal?
8. What is your perception about grading system?
9. What are the advantages and disadvantages of grading system?
10. Does letter grading system represent your score better? How can you say so?
11. What changes did you found after implementation of grading system?