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Editorial

Marsyangdi Multiple Campus, the first and leading higher educational institution of Lamjung district, has become a hub for higher education for the students from rural, marginalized, and backward communities. Since its inception in 1990 (2047 B.S.), the campus has a long way with lots of ups and downs in its journey of physical and academic enhancement. Now, the campus is in the final process of achieving QAA (Quality Assurance and Accreditation) to ensure its quality of education.

Considering the importance of research in higher education for quality education, the Campus Management Committee (CMC) has formed a five-member Research Management Cell (RMC) to promote research activities and publications. Since then, RMC has been conducting research-related activities such as workshops on academic writing, call for journal articles and mini-research, encourage the faculty members to attend various research writing webinars during the COVID-19 pandemic and develop the infrastructure for research.

It is our immense pleasure to publish the first volume of Marsyangdi Journal- research and academic publication of the RMC of the campus. This is the first research publication of RMC. In nature, it is a multidisciplinary journal and publishes annualy. It includes the scholarly articles from the professionals and academicians from the various fields of the society. This volume has coverage of research methodology, language and literature, education, agriculture, and social science. We are able to publish this volume in this form due to the support and contribution of scholars across the country.

We are grateful to the QAA peer review team from UGC, Nepal for their inspiration for journal publication. We would also extend our warm gratitude to Mr. Hari Prasad Baral, Chair of CMC, Mr. Hari Babu Thapa, Campus chief, and all the entire team of CMC for their inspiring suggestions. We are extremely indebted to the academicians and researchers who contributed their valuable articles in a short period during the pandemic of COVID. Since it is our first attempt, there may be errors in editing and the editorial team is extremely sorry and promises to improve the weaknesses of this volume in the next publication. Furthermore, we always welcome critical comments and constructive feedback from readers, scholars and our well wishers.

2020, September **Editors**

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Qualitative Versus Quantitative Research

Basanta Kandel

Abstract

This paper intends to compare and contrast qualitative and quantitative research in brief. Based on library sources, the paper is prepared for the Bachelor and Master level research students plus interested one. The article initiated with the concept of research and its major purposes, and then associates the general information about qualitative, quantitative and mixed method research. Finally, it illustrates the relative and discrepancy between qualitative and quantitative research with a few concluding note.

Keywords: Research, quantitative research, qualitative research, mixed research

Concept of research

Research is a process by which a person observes a phenomenon again and again and collects the data and draws some conclusions. Grinnell (1993) defines Research is a careful, systematic, pertinent study and investigation in some field of knowledge, undertaken to establish facts or principles. Research is a systematic and controlled enquiry through which data are collected, analyzed and interpreted to eliminate difficulties and improve conditions (Cohen et al, 2007). Generally, research refers to a systematic investigation to find answers to a problem. According to Kerlinger (1986), 'scientific research is a systematic, controlled empirical and critical investigation of propositions about the presumed relationships about various phenomena'. In nutshell, research is primarily committed to establishing systematic, reliable and valid knowledge about the social world. The research has many purposes, the major are listed here:

- Generating new knowledge/finding truth
- Improving understanding
- Formulating new theories /revision of existing theories
- Refining existing research method
- Clarification of fact
- Application of testing
- To help in decision making process for effective planning, program and implementation
- Scientific study

On the other hand, the specific purposes of research are:

- For the sake of knowledge
- For practical contribution

In conducting research, we need to focus on specific design that gives us idea about procedures and logistical arrangements required and provide a whole framework to undertake a study. A research design is a procedural plan that is adopted by the researcher to answer questions validly, objectively, accurately and economically (Kumar, 2005). Research designs are types of inquiry within qualitative, quantitative, and mixed methods approaches that provide specific direction for procedures in a research design. Others have called them strategies of inquiry (Denzin & Lincoln, 2011). On the basis of inquiry mode, primarily research can be grouped into two types:

Qualitative research

Qualitative research collects, analyzes, and interprets data by observing what people do and say. Qualitative research is naturalistic, interpretative approach concerned with understanding the meanings which people attach to phenomena (actions, decisions, beliefs, values etc.) within their social worlds (Denzin & Lincoln, 2005). Berg (2007) states it refers to meanings, concepts, definitions and characteristics, metaphors, symbols and descriptions of things.

Qualitative research is subjective and uses different methods of collecting information, including individual, in-depth interviews and focus groups discussion. The nature of this type of research is exploratory and open-ended. Qualitative research can provide insight which is not possible to elucidate with purely quantitative data. It is a means for exploring and understanding the meaning individuals or groups ascribe to social or human problems, and attitudes human behavior and social world. Qualitative research helps us to understand the world in which we live and why things are the way they are. The goal of qualitative research is the development of concepts which help us to understand social phenomena in natural settings, giving due emphasis to the meanings, experiences and views of all the participants. Some examples of qualitative research are: Narrative research, Phenomenology, Grounded theory, Ethnographies, Case study.

Qualitative research answer questions on: Why people behave the way they do? How opinions and attitudes are formed? How people are affected by the events that go on around them? How and why cultures have developed?

Quantitative research

Quantitative research is 'explaining phenomenon by collection numerical data that are analyzed using mathematically based methods (in particular statistics)' (Aliaga and Gunderson, as cited in Muijs, 2004). Quantitative research is controlled, obstructive, objective and product oriented which aims at quantifying the variation of certain situation, issue, even or phenomenon. The objective of quantitative research is to develop and employ mathematical models, theories and /or hypothesis pertaining to phenomena. Leedy (1993) utters:

Quantitative research method deals with numbers and anything that is measurable in a systematic way of investigation of phenomenon and their relationships. It is used to answer questions on relationships within measurable variables with an intention to explain, predict and control phenomena.

The quantitative research aims to determine the relationship between one thing (an independent variable) and another (a dependent or outcome variable) in a population. It is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures and /or hypothesis pertaining to phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships. In it, researcher analyzes the data with the help of statistics. Some examples of quantitative research are: Experimental designs, Non-experimental designs.

Mixed methods research

If a single research makes use of both qualitative and quantitative research methods, the study is said to be mixed methods research. Creswell (2014) suggests that mixed methods research is an approach in which the researcher collects analyses and interprets both quantitative and qualitative data, integrates the two approaches in various ways and frames the study within a specific design. The mixed-method researches are of; Convergent (parallel design), Explanatory sequential (Quan- Qual), Exploratory sequential (Qual- Quan), Embedded intervention design.

Qualitative vs. quantitative

Qualitative research describes how people feel or what they think about a particular subject, situation, phenomenon, or event but quantitative research aims at quantifying those things in terms of number and statistics. The distinction between qualitative and quantitative research is neither watertight nor they are not mutually exclusive; they differ in the treatment of the data but not in theory (Pathak, 2011). Basically, they differ in the purpose of the study, measuring variables and analyzing the information.

The fundamental distinction between qualitative and quantitative research will make the sense more clear.

Qualitative Research	**Quantitative Research**
Naturalistic and uncontrolled observation.	Controlled and obstructive observation.
Subjective in nature, findings can be influenced by the researcher's attitude and interest.	Objective in nature, no chance of influence by the researcher.

Emphasis is on causes, meanings, interpretations, and implications.	Emphasis is on precision in describing events, quantitative scores, measurement and statistical and mathematical analysis.
Conducted in small scale, means a small number of population.	Conducted in large scale i.e.; large number of population.
Focuses on words, behavior and natural setting.	Focuses on number, meaning and controlled setting.
Process and meaning oriented.	Product and result oriented.
Flexible and holistic in nature.	Rigid and specific in nature.
Discovery oriented, and the approach is inductive.	Verification oriented, and the approach is deductive.
Analysis proceeds by extracting themes or generalizations from evidence and organizing data to present a coherent and consistent picture.	Analysis proceeds by using statistics, tables, charts and analysis, show the variables' relations to hypotheses.
Examples: phenomenological, ethnographical, heuristic, case studies, historical studies, philosophical studies so on.	Examples: experimental, quasi-experimental, surveys, co-relational studies so on.

Conclusion

To conclude, qualitative research and quantitative research share the same patterns, structures, steps, procedures, principles, methods, techniques, and are used synonymously. These research types differ in terms of treatment of data but are not mutually exclusive. The way a researcher decides to collect, analyze, and interpret the data determines either a research is qualitative or quantitative.

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Writing a Literature Review

Binod Neupane

Abstract

A literature review is a process of reviewing scholarly sources related to the research topic or problem. The present article deals with some strategies of writing a literature review f which can be significant for the graduate and post-graduate students. The article explains briefly what literature is and the purposes of writing a literature review in any research report including university theses or dissertations. Based on my experiences and the information from the secondary resources, I have explored the five steps of writing a literature review like search for relevant literature, evaluate and select sources, identify themes, debates, and gaps, outline the structure of the literature review, and write a literature review can support the novice researchers to write good a literature review in qualitative research. Finally, it explains the ways to develop different arguments based on a particular theme, connect the research findings in different contexts, their chronological organisation, the use of connectives and reporting verbs, the language generally used in a literature review, the way to avoid plagiarism, and more specifically, how the researchers need to create a gap in a literature review.

Keywords: Literature review, theme, research gap, qualitative research, research step

Introduction

Reading available sources and reviewing relevant literature is a complicated job in the research process. The process of reviewing the existing documents such as books, journal articles, research reports, and web pages continues from the beginning to finalising a research paper or thesis (Creswell & Creswell, 2012). In every research, a literature review may occupy an important space because it provides information to the researchers about what has been studied and what is left to carry out research. A literature review is a process of reviewing (reading and recording) the scholarly sources such as books, research articles, and previous research reports on a specific (Oetting, 2011).

Writing a literature review involves finding relevant materials like journal articles and books critically, analysing them, and explaining what you find. Generally, one can follow five key steps while reviewing the related literature: search for relevant literature, evaluate sources, identify themes, debates, and gaps, outline the structure, and writing a literature review (McCombes, 2019). Good literature analyses, syntheses, and critically evaluate to give a clear picture of the state of knowledge on the subject, not just summarise sources. It explores books, academic articles, and any other sources pertinent to a particular issue, area of research, or theory, and by so doing, gives a description, summary, and critical evaluation of these works to the research problem being investigated (Fink, 2014). Literature reviews provide a synopsis of sources that the researcher has explored while researching a particular topic and to demonstrate to your readers how your research fits within a larger field of study. A literature review is important even before the researcher is only thinking about a research question that he/she may want to find answers through research. In the initial stages of research, it clarifies the researcher's ideas, establishes the theoretical bases of his/her study, and develop his/her research methodology and in the later stage, literature review helps to examine your findings in the context of the existing body of knowledge (Kumar, 2014) Similarly, Nunan (2010) states that literature review provides background information on the research question and to explore what others have said or discovered about the question.

While reviewing any literature or a journal article, the researcher needs to bear in mind about the researcher, the date of publication, the topic or area of the research, the context of the study, the employed methodology, and the result or findings of the research because these key ideas help the researcher explore relevant information from documents, note key information when reading, interpret the information systematically and save valuable time (Rana, 2018). Similarly, the written literature review is expected to be critical (Brayman, 2012). This does not necessarily mean that the researcher is expected to be highly critical of the authors he/she read, but it does mean that you are supposed to assess the significance of their work and how each item fits into the narrative about the literature that you construct when writing a literature review. While writing a literature review, (Brayman, 2012) states that we need to be familiar with the following points:

- what is already researched related to the topic;
- what theoretical lens has been applied to the topic;
- what research methods have been used to the topic;
- what controversies about the topic and how it is studied;
- what clashes of evidence (if any) exist; and
- who have contributed to the topic area.

Reasons for writing a literature review

A literature review is one of the essential components of research. It helps to determine whether the topic is researchable or not, and provides insight into ways in which the researcher can limit the scope to a needed area of inquiry (Creswell and Creswell, 2018). Similarly, the literature review shares with the reader the results of other studies that are closely related to the one being undertaken. It relates a study to the larger, ongoing dialogue in the literature, filling in gaps, and extending prior studies (Cooper, 2010; Marshall & Rossman, 2016). It provides an outline for establishing the importance of the study as well as a standpoint for comparing the results with other findings (Creswell and Creswell, 2012). For Kumar (2014), a literature review brings clarity and focus to your research problem, improves your research methodology, and broadens your knowledge base. Likewise, it identifies the main themes from the literature reviewed that are relevant to your study. Moreover, the researcher carries out a literature review to show how much he/she is familiar with the topic and the context, to develop a theoretical outline and methodology for the research, to reveal any gaps that exist in the literature, to identify the prior research area to prevent duplication of effort, and to state his/her position to other researchers and theorists (Fink, 2005; Cooper, 2010).

Doing a literature review helps to collect information what others have said on the research problem to sharp the idea on the topic. The goals of a literature review include demonstrating familiarity with a body of knowledge to establish credibility, showing the path of prior research, and link the current research to it, integrating and summarising the known information in an area, and stimulating new ideas (Neuman, 2014).

While carrying out the literature review, the researcher should go through the sources which can support him/her to investigate the answer to his/her research questions. A good way to start a literature review is to prepare an annotated bibliography that contains a list of relevant studies relating to the research question or issue (Nunan, 1992). A literature review is different from an annotated bibliography in the sense that the researcher extracts and synthesises the main points, issues, finding, and research methods which emerge from a critical review of the readings. Marriam (1988) suggests that, in carrying out a literature review, it is a good idea to differentiate between data-based research and non-data based writings. As the name suggests, data-based literature is based on empirical information collected by the researcher whereas non-data-based writings reflect the writer's experiences or opinions and can range from the highly theoretical to popular testimonials' (Merriam 1988: 61).

My experience of writing a literature review

Theoretically, I was familiar with a literature review, its types, and the process of writing a literature review. However, I struggled a lot while writing a literature review for my M. Phil. research proposal in the Faculty of Social Science and Education at Nepal Open University. I had written two master's thesis with a literature review and scored good marks for them, but now I realise that my writing might not of such a standard to deserve such marks. Like me, many students might face problems while writing a literature review in their graduate and post-graduate dissertations. Working continuously for about four months with my research supervisor and my colleagues, I came to know that writing literature systematically can be possible if we follow some steps.

To make the context of the proposed research clear, it is important to provide adequate background information to previous research in a literature review. Suggested by Paltridge and Starfield (2007), I followed the following questions to describe previous research:

- Who carried out the research?
- Who were the subjects of the research?
- Why was it carried out?
- Where was it carried out?
- How was it carried out?
- When was the research published?
- What was the result of the research?

Following the advice of my research supervisor, I developed arguments from various works of literature considering the five basic elements like the author, year of publication, methodology, context, and findings of the prior studies, and relevance to current research. Then, I organised the information systematically and chronologically from the relevant literature for my qualitative study with the help of the following table.

Table 1: Basic elements for developing an argument from the relevant literature

Author	Year	Methodology	Context	Findings

Different reporting verbs can be used to report on previous research. These verbs can be classified in a number of ways. For example as suggested by Paltridge and Starfield (2007), the verbs like 'report' make a *statement*; the verbs like 'explain' express a writer's personal *judgment* in a very general way; the verbs such as 'argue' express a writer's *opinion*; the verbs like 'propose' present a writer's *suggestion*; and the verbs such as 'doubt' express some kind of *disagreement*. Following this idea, I used the different reporting verbs to report on previous research. Similarly, to connect the relevant information from various sources, I learned to use some connectives like, according to, however, thus, therefore, nevertheless, similarly, in a similar way, moreover, then, in addition, in the same vein, likewise, as, since, in line with. Likewise, I learned the skill of paraphrasing and quoting to avoid plagiarism.

My first draft was like a high school essay that lacked several components of academic writing. After getting the feedback from my supervisor and after studying literature related to my study area, I could improve my writing. The regular push up and encouragement of my supervisor and my hard work supported me to refine my writing. In the beginning, I was not sure about the themes for the literature review. My supervisor had advised me to write in 7/8 themes. But after reading the literature of diverse contexts, I could develop 11 different themes related to my two research questions. At first, I gathered all the related information, later on, the information was so massive that I had to select the authentic information based on the publication and sources. I read more than 100 research articles available in different search engines and dozens of dissertations and books related to my study area. So, the rigorous reading made me able not only to find authentic information but also supported me to refine my language and develop my writing in a readable form.

Finally, I struggled most in finding research gaps which is the most important component of a literature review. For example, my research topic was 'Primary teachers' experiences of using English as a Medium of Instruction', and I had to find out the gap to proceed with my study. I explored the studies in various contexts with research questions and listed the major findings. Then only, I could claim that the study was a less researched area in the context of rural community schools of Nepal.

Steps to writing a literature review

Based on my own experiences of writing a literature review, I came to know that writing a literature review is not a simple task. However, if we follow some steps of writing a literature review systematically, we can write a good literature review for our research. The following steps as suggested by Oetting (2011) may support the beginners to write the literature review.

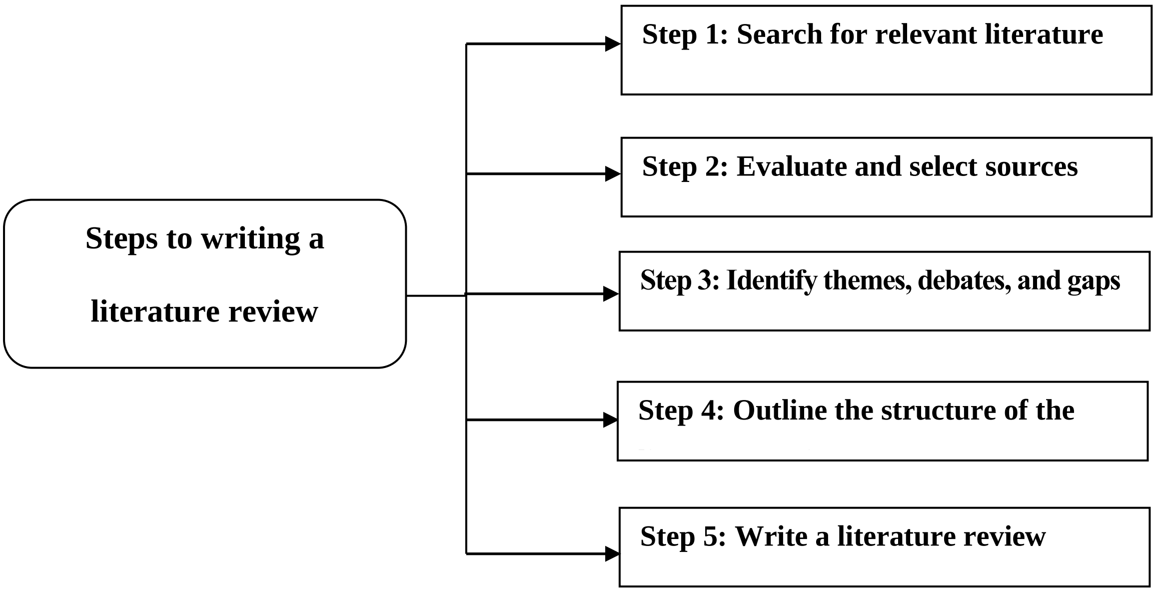

Figure 1: Five steps to writing a literature review

Step 1: Search for relevant literature

As suggested by Oetting (2011), I searched for literature related to my research problem and questions after identifying my research problem. I collected literature; however, all of them were not be relevant to my research topic and research questions, so I made a list of the sources which were relevant to my problem. For example, my research topic was 'Primary teachers' experiences of using EMI', so my focus of the study was on EMI related studies in different contexts. I made a list of keywords and use them to search the relevant literature in different sources such as Google Scholar, JSTOR, Semantic Scholar, Science.gov, Core, Base, and my university's library catalogue. I could not read the whole text of each research paper or source as they might take more time, so I read the abstract to find out whether a particular article is relevant to my research questions. When I found a useful book or article, I would check the bibliography to find other relevant sources.

Step 2: Evaluate and select sources

I was not able to read all the sources although they were relevant to my questions. So, I would have to evaluate which sources were most relevant to my questions. Following the idea of Creswell and Creswell (2012), I gave priority to the most relevant sources out of the collected literature. In the literature, I tried to find out the problems or questions the writer has addressed, the key concepts and the way they are defined, the major theories, models and methods followed in the study, the results and conclusions of the study, the relation of the publication with other literature in the field, the support of the study to my research topic and the strengths and weaknesses of the research. I consulted only the authentic and credible sources for valid data. Likewise, I found out the frequency of the citation on Google Scholar - a high citation count means the article has been influential in the field, and should certainly be included in the literature review (Neuman, 2014). I kept on making the notes and cite my sources to avoid plagiarism.

Step 3: Identify themes, debates, and gaps

To begin organising my literature review's argument and structure, I had to understand the connections and relationships between the sources I have read. With the idea of Fink (2005), I identified themes based on my research questions. In the course of reviewing literature in various contexts, I not only looked for the supporting ideas, but I also gathered some conflicting ideas which created contradictions against the findings of some research. After finding what has already been researched and what has not been studied yet, and what the less explored area is, I established the gaps in my study. This step supported me to work out the structure of my literature review and (if applicable) which showed how my research would contribute to existing knowledge.

Step 4: Outline the structure of the literature review

There are several approaches to organising the body of a literature review. Based on various themes related to my research questions, I gathered the arguments of different people in different contexts as suggested by Kumar (2009). I needed to put the arguments chronologically according to the themes. No matter whether it is qualitative, quantitative, or mixed research, the researcher needs to include five things while writing the body of the literature review: the name of the person whose arguments you are using, the date, the methodology he or she has followed, the contexts and the findings. Instead of copying their findings, write it analytically.

There may be several studies under a theme, where the researcher puts the arguments chronologically over time. For example, in my research, the major themes were teachers' perception and experiences of using EMI, EMI practices and challenges, language policy in Nepal, the medium of instruction policy in Nepal, support for implementing EMI, students' perception of using EMI, and critical perspectives on EMI. Under the theme 'teachers' perception and experiences', there were several arguments made by the researchers in various contexts. I organised their arguments chronologically as in the following example;

> *In quantitative research in Oman, Albar (2014) found that students, teachers and parents refused to adopt EMI to teach Maths and Science, although they accepted the teaching of English as a foreign language. Similarly, Gough (2016) in Germany reported that students' learning achievement in EMI classroom was not satisfactory due to their low English background. Furthermore, in Spain, Smith (2018) reported that the institutions forced the teachers to adopt EMI rather than considering their choice. However, Richards et al. (2019) argued that although schools imposed English only to learn content in the classroom, students were comfortable to switch English to Vietnamese.*

Step 5: Write a literature review

Generally, we start a literature review with an introduction that establishes the focus and purpose of the literature review. Depending on the length of the literature review, we need to divide the themes into subsections. We can use subheadings for each theme, period, or methodological approach. While writing, I followed the tips like, summarize and synthesize, analyze and interpret, critically evaluate and write in well-structured paragraphs (Creswell & Creswell, 2018). In conclusion, I summarised the key findings I had taken from the literature and emphasised their significance. More importantly, I identified the gap between the earlier studies and my study in this section.

Moreover, Paltridge and Starfield (2007), suggest the following five steps for writing a literature review with strategies.

Locate relevant literature: In this step, the researchers identify key authors and journals related to the research problems and research questions. These days the use of search engines such as Google Scholar provides adequate sources including research articles, books and chapters. The keywords use in the articles and the references used in the resources are also the sources to locate relevant literature.

Critically read the literature Identify themes in the literature: In this step, the researchers read the relevant literature and identify the themes. They identify the strengths and weaknesses of individual articles.

Prepare to write: Now, the researchers make a preliminary outline of the literature review with the expected length, and organise the literature that they will cover.

Write the review: This is the actual step of writing a literature review. The researchers begin their writing with introduction. They write sub-sections, use transition markers and metatext and synthesise and critically evaluate the literature. To avoid plagiarism, they summarise and paraphrase the text with proper citation.

Indicate the gap: Finally, the researchers identify the research gap which the previous researchers have not explored more.

Conclusion

A review of related literature is a significant aspect of any research work as it provides the researcher with the background information on the research questions and informs what has already been told or practised. So, it is a useful way of demonstrating the credibility and contribution of any research. It is a continuous process that begins before a research problem finalised and continues until the report is finished. Reviewing the existing sources makes the researcher able to link his/her research questions, finding, and discussion to the existing literature. A literature review is not simply a summary of the literature that has been read; the researcher needs to review the literature analytically and critically. Due to the rapid growth of information and communication technology, the sources of literature from diverse areas have been more available and expanded. Since literature review is a systematic, explicit, and producible part for identifying, evaluating and interpreting the works produced by scholars and researchers, the researchers need to follow some acceptable steps for the effective review of available literature. Moreover, reviewing a literature enables the researcher to find out the research gap.

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The Emergence of Sociology: How and Why

Dambar Ale

Introduction

There is need and important to understand human society to understand the social phenomena. If we cannot understand the social world, we are more likely to be unfamiliar and speechless about the social process. The knowledge of social process is essential if we want to influence them. Sociology can help us to examine how the social world influences the way we think, feel, and act. It can also help with decision making, both our own and that of larger organizations. Sociologists can gather systematic information from which to make a decision, provide insights into what is going on in a situation, and present alternatives. Sociologists study all things human, from the interactions between two people to the complex relationships between nations or multinational corporations. While sociology assumes that human actions are patterned, individuals still have room for choices. Becoming aware of the social processes that influence the way humans think, feel, and behave plus having the will to act can help individuals to shape the social forces they face. This article clarifies the emergence of sociology with brief introduction of the prominent sociologists in global context, and the development of sociology in Nepali context.

Emergence of sociology

Since ancient times, people have been fascinated by the relationship between individuals and the societies to which they belong to. Many topics studied in modern sociology were also studied by ancient philosophers in their desire to describe an ideal society, including theories of social conflict, economics, social cohesion and power (Hannoum, 2003). In the 13th century, Ma Tuan-Lin, a Chinese historian, first recognized social dynamics as an underlying component of historical development in his seminal encyclopedia, General Study of Literary Remains. The next century saw the emergence of the historian some consider to be the world's first sociologist: Ibn Khaldun (1332-1406) of Tunisia. He wrote about many topics of interest today, setting a foundation for both modern sociology and economics, including a theory of social conflict, a comparison of nomadic and sedentary life, a description of political economy, and a study connecting a tribe's social cohesion to its capacity for power (Hannoum, 2003).

In the 18th century, the Age of Enlightenment philosophers developed general principles that could be used to explain social life. Thinkers such as John Locke, Voltaire, Immanuel Kant, and Thomas Hobbes responded to what they saw as social ills by writing on topics that they hoped would lead to social reform. Mary Wollstonecraft (1759-1797) wrote about women's conditions in society. Her works were long ignored by the male academic structure, but Wollstonecraft has been widely considered the first feminist thinker since 1970s. The early 19th century saw great changes with the industrial revolution, increased mobility, and new kinds of employment. It was also a time of great social and political upheaval with the rise of empires that exposed many people- for the first time- to societies and cultures other than their own. Millions of people moved into cities and many people turned away from their traditional religious beliefs.

Prominent sociologist of the world

The term sociology was first coined in 1780 by the French essayist Emmanuel Joseph Sieyes (1748-1836) in an unpublished manuscript (Faure et al. 1999). In 1838, the term was reinvented by Augusto Comte (1798-1857). Comte originally studied to be an engineer but later became a pupil of a social philosopher. He believed in the potential of social scientists to work toward the betterment of society. He held that once scholars identified the laws that governed society, sociologists could address problems such as poor education and poverty (Abercrombie et al. 2000). Comte named the scientific study of social patterns- positivism. He described his philosophy in a series of books called '*The course in Positive Philosophy'* (1830-1842) and 'A General view of Positivism' (1848). He believed that using scientific methods to reveal the laws by which societies and individuals interact would usher in a new "Positivist" age of history. While the field and its terminology have grown, sociologists still believe in the positive impact of their work.

Harriet Martineau was a writer who addressed a wide range of social science issues. She was an early observer of social practices, including economics, social class, religion, suicide, government, and women's rights. Her writing career began in 1931 with a series of stories titled Illustrations of Political Economy, in which she tried to educate ordinary people about the principles of economics (Johnson 2003). Karl Marx (1818-1883) was a German philosopher and economist. In 1848 he and Friedrich Engels (1820-1895) co-authored the Communist Manifesto. This book is one of the most influential political manuscripts in history. It also presents Marx's theory of society, which differed from what Comte proposed. He believed that societies grew and changed as a result of the struggles of different social classes over the means of production. Marx predicted that inequalities of capitalism would become so extreme that workers would eventually revolt. This would lead to the collapse of capitalism, which would be replaced by communism. Communism is an economic system under which there is no private or corporate ownership: everything is owned communally and distributed as needed. Marx believed that communism was a more equitable system than capitalism.

The English philosopher Herbert Spencer (1820-1903) published '*The Study of Sociology*', the first book with the term "Sociology" in the title in 1873. Spencer rejected much of Comte's philosophy as well as Marx's theory of class struggle and his support of communism. Instead, he favored a form of government that allowed market forces to control capitalism. His work influenced many early sociologists including Emile Durkheim (1858-1917). Georg Simmel (1858-1918) was a German art critic who wrote widely on social and political issues as well. Simmel took an anti-positivism stance and addressed topics such as social conflict, the function of money, individual identity in city life, and the European fear of outsiders (Stapley, 2010). Much of his work focused on the micro-level theories and it analyzed the dynamics of two-person and three-person groups. His work also emphasized individual culture as the creative capacities of individuals. Simmel's contributions to sociology are not often included in academic histories of the discipline, perhaps overshadowed by his contemporaries Durkheim, Mead, and Weber (Ritzer and Goodman, 2004).

Emile Durkheim (1858-1917) helped to establish sociology as a formal academic discipline by establishing the first European department of sociology at the University of Bordeaux in 1895 and by publishing his Rules of the Sociological Method in 1895. In another important work, Division of Labor in Society (1893), Durkheim laid out his theory on how societies transformed from a primitive state into capitalist, industrial society. According to Durkheim, people rise to their proper levels in a society based on merit. In 1897, Durkheim attempted to demonstrate the effectiveness of his rules of social research when he published a work titled Suicide. George Herbert Mead (1863-1931) was a philosopher and sociologist whose work focused on how the mind and the self were developed as a result of social processes (Cronk, n. d.). He argued that how an individual comes to view himself or herself is based to a very large extent on interactions with others. Mead called specific individuals that impacted a person's life significant others. And he also conceptualized generalized others as the organized and generalized attitude of a social group. Mead's work is closely associated with the symbolic interactionist approach and emphasizes the micro-level of analysis.

Max Weber (1864-1920), a prominent sociologist, established a sociology department in Germany at the Ludwig Maximilians University of Munich in 1919. Weber wrote on many topics related to sociology including political changes in Russia and social forces that affect factory workers. He is known best for his book *'The Protestant Ethic and the Spirit of Capitalism'* (1904). The theory that Weber sets forth in this book is still controversial. Some believe that Weber argued on the beliefs of many Protestants, especially Calvinists, led to the creation of capitalism. Others interpret it as simply claiming on the ideologies of capitalism and Protestantism are complementary. In his book '*The Nature of Social Action'* (1922), Weber described sociology as striving to interpret the meaning of social action and thereby give a causal explanation of how action proceeds and the effects it produces.

Sociologists believe that our social surroundings influence thoughts and actions. For example, the rise of the social sciences developed in response to social changes. In the 16th and 17th centuries, Europeans were exploring the world, and voyagers returned from Asia, the Americas, Africa, and the South Seas with amazing stories of other societies and civilizations. Widely different social practices challenged the view that European life reflected the natural order of God. In the 18th and 19th centuries, Western Europe was rocked by technical, economic, and social changes that forever changed the social order. Science and technology were developing rapidly. James Watt invented the steam engine in 1769 and in 1865 Joseph Lister discovered that an antiseptic barrier could be placed between a wound and germs in the atmosphere to inhibit infection. These and other scientific developments spurred social changes and offered hope that scientific methods might help explain the social as well as the natural world. This trend was part of a more general growth in rationalism.

The industrial revolution began in Britain in the late 18th century. By the late 19th century, the old order was collapsing "under the twin blows of industrialism and revolutionary democracy" (Nisbet,1966:21). The mechanical industry was growing and thousands of people were migrating to cities to work in the new factories. People once rooted in the land and social communities where they farmed found themselves crowded into cities. The traditional authority of the church, the village, and the family was being undermined by impersonal factory and city life. Capitalism also grew in Western Europe in the 19th Century. This meant that relatively few people owned the means of production such as factories while many others had to sell their labor to those owners. At the same time, relatively impersonal financial markets began to expand. The modern epoch was also marked by the development of administrative state power, which involved increasing concentrations of information and armed power (Giddens, 1987:27).

Finally, there was enormous population growth worldwide in this period, due to longer life expectancy and major decreases in child death rates. These massive social changes lent new urgency to the development of the social sciences, as early sociological thinkers struggled with the vast implications of economic, social, and political revolutions. All the major figures in the early years of sociology thought about the great transformation from simple, preliterate societies to massive, complex, industrial societies. Sociology was taught that name for the first time at the University of Kansas in 1890 by Frank Blackmar, under the course title Elements of Sociology, where it remains the oldest continuing sociology course in the United States. The first academic department of sociology was established in 1892 at the University of Chicago by Albion W. Small, who in 1895 founded the American Journal of Sociology.

The first European department of Sociology was founded in 1895 at the University of Bordeaux by Emile Durkheim, founder of L'Annee Sociologique (1896). The first sociology department to be established in the United Kingdom was at the London School of Economics and Political Science (home of the British Journal of Sociology) in 1904. In 1919 a sociology department was established in Germany at the Ludwig Maximillians University of Munich by Max Weber and in 1920 by Florian Znaniecki. International cooperation in sociology began in 1893 when Rene' Worms founded the institute international de sociologie, which was later eclipsed by the much larger International Sociological Association (ISA), founded in 1949. In 1905, the American Sociological Association, the world's largest association of professional sociologists, was founded and in 1909 the Deutsche Gesellschaft fur Soziologie (German Society for Sociology) was founded by Ferdinand Tonnies and Max Weber among others.

Sociology was developed as a way to study and try to understand the changes to society brought on the Industrial Revolution in the 18th and 19th centuries. Some of the earliest sociologists thought that societies and individuals' roles in society could be studied using the same scientific methodologies that were used in the natural sciences, while others believed that it was impossible to predict human behavior scientifically, and still others debated the value of such predictions. Those perspectives continue to be represented within sociology today.

Development of sociology in Nepal

Sociology and Anthropology don't have a long history in Nepal. During the British colonization in India, some British scholars entered Nepal and described the vast and diverse Nepali culture and society. Daniel Wright, Col. Kirk Patrick, Brian Hodson, FB Hamilton, Oldfield, and others are the noteworthy scholars who wrote about diversified Nepali culture and society for the first time and introduced Nepal in Europe in the early 19th century. They were charmed by the diversified Nepali society and culture and wrote their findings. They depicted some important features of Nepalese society and culture such as observed Anglo War, watched Shah Dynasty capturing the Kathmandu valley, excavated the mosaic of Nepali people, culture, and society which is diversified racially, religiously, culturally, ethnically, etc.

Accounts provided by historians and others such as Prayag Raj Sharma, Kamal Prakash Malla, Harka Gurung, and other Itihas Samsodhan Mandal, etc. had created a productive platform for sociological reconstruction. More recently, Baburam Bhattarai's (2003) Marxist account of Nepal's political economy has provided a rich source for further reconstruction of socio-spatial relationships in Nepal. The old "colonial" account by William Kirkpatrick (1811), Francis Hamilton (1819) and Brian Hodgson (1880) also constituted good source materials for historical analysis. Mahesh Chandra Regmi's documentation based on historical accounts, particularly those related to the agrarian features of the 19th century of Terai, the conditions of life of the peasants and tenants there and their relationship with the state and its intermediaries as well as the social implications of the agrarian regime (Regmi 1978, 1984) has proved an extremely fertile site for a variety of social science disciplines.

The formal development of sociology and anthropology began in Nepal after the fall of the Rana Regime. The institutional development of sociology and anthropology began after 1950 AD on the process of development of sociology and anthropology. Village development training center was established in 1953. Along with the significant political change in the 1950s, many people were provided with training and mobilized in the rural development program forwarded by the government. In such training, sociological and anthropological knowledge was provided to the people. During this phase, various institutions were established to develop sociology and anthropology in Nepal. Some of them are: Institute of Nepal and Asian Studies was established under Tribhuvan University (TU), Department of sociology and anthropology was established under TU, Panchayat training centre was founded by the government of Nepal later changed into village development training centre. Centre for economic development and administration was established in TU, Sociology, and anthropology Association in Nepal was founded under TU. TU in Nepal was established in 1960 but it took 20 yrs for the foundation of the department of academic development for the formal teaching to MA level student was carried out. At first, Ernest Gellner's 1970 report on the desirability and feasibility of a Department of Sociology in Tribhuvan University, which emphasized that "social research should be closely tied both to social development and to the exploration of the national culture", and Alexzander Macdonald's enrolment as the first professor of sociology (for both events see Macdonald 1973) as well as Dor Bahadur Bista's appointment as the first professor of anthropology were responses to these agenda. While this venture had its share of problems (Dahal 1984:39-40), it did serve to argument the legitimacy of the discipline in the eyes of the state, several international development agencies, and Tribhuvan University.

Therefore, in 1979, some of the Nepali scholars were sent to India for the training for curriculum development at the MA level. In 1980, the department of sociology and anthropology was founded in Nepal under the chairmanship of Professor Dr. Chaitanya Mishra under TU. In 1985, the BA level program was extended to other four campuses: Trichandra College in Kathmandu, Patan Multiple Campus in Lalitpur, Prithvinarayan Campus in Pokhara, and Mahendra Morang Campus in Biratnagar. In these given colleges, the MA level program commenced by 1990 onwards. Teaching sociology and anthropology were extended in Higher Secondary Level and Proficiency Certificate Level level from 1996/97 onwards. Now, Social Studies are taught at school level as a compulsory subject.

Study of sociology and anthropology in Nepal

As long as the Department of Sociology and Anthropology established in 1980 under Tribhuvan University, the quest for Sociology has been increasing day by day. Research works based on the scope of sociology have been carried from the very beginning. Hence, sociology in Nepal is taught for the following purposes:

- to study the diversified society and culture in Nepal
- to conduct the ethnographic study and research of various ethnic groups residing in Nepal
- to involve in the formulation of plan and policies on development sectors
- to study and analyze the social, political and economic issues
- to play the role of helping hand for boosting activities of different GOs, NGOs, and INGOs
- to understand the theoretical and practical differences between ancient society, feudalism, capitalism, and socialism
- to understand and analyze market situations
- to develop the concept of social inclusion and harmony among peoples
- to understand ourselves, community and nation as well as the world then and now
- to promote the issues of minorities, disadvantaged groups, rural women, Dalits, etc.
- to help socio-culture reconstruction
- to land on the job market easily.

Sociology and anthropology in Nepal: Suggestions for improvement

Founder Chairman of Sociology & Anthropology Department, Prof .Dr. Chaitanya Mishra, in 1st Dec.2007, made fourteen suggestions in an inauguration program: "Past, Present and Future of Sociology and Anthropology" organized by the Department of Sociology and Anthropology of Prithvi Narayan Campus, Pokhara as follow:

- learn from the best university

- strengthen core areas
- avoid duplication across levels
- give equal weight to perspectives
- follow and improve upon the pattern of SA 506
- encourage creating and recognizing information and knowledge
- emphasizing local and regional knowledge
- insisting on a smaller class size
- localized student evaluation
- encourage campus identity and competition
- reward excellence in teaching and research
- make texts easily available
- revamp subject committee
- render Central Department of S/A worthy of the designation

Conclusion

Sociology helps us to look more objectively at our society and other societies. It directs attention to how the parts of society fit together and change, as well as make us aware of the consequences of that social change. A study of sociology provides the conceptual tools and methods for understanding the social milieu as it is expressed in group attitudes, values, behaviors, political processes of workers, families, organizations, consumers, and governments.

By focusing on the external forces that affect attitudes, values, and behaviors, sociology helps us better understand ourselves and the motivations of others around us. While we are all creatures of the various groups, organizations, and governments in our environments, we are also their creators. Sociology provides the tools and skills we need to take a more active role in creating, participating in, managing, and advancing such groups. The US Department of Labor forecasts that people entering the job market today will change careers several times for their work life. Studying sociology does more than just prepare students for a narrow specialty; rather, it helps individuals to be ready to meet the challenges and opportunities of our increasingly diverse and complex society.

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Sources of Data

Hari Babu Thapa

Introduction

The collection of relevant data for any social science research is important because the reliable and authentic data can support to increase the validity of the research findings. The scholars belong to various social sciences have developed their techniques of data collection, depending upon the nature of their discipline. The phenomenon of society is dynamic; it may therefore difficult to collect data from a large area. The appropriate sampling procedures may bring relevant data. This article highlights some sampling procedures that are commonly used in social science research for data collection.

Defining data

Data is a distinct piece of information and facts. It refers to describe and computing. In data, ideas, conditions, and situations are usually formulated. Since the mid-1900s, people have used the word data to mean computer information that is transmitted or stored (Kothari, 2004). Data can be divided into two broad types: qualitative or descriptive and quantitative or numerical data.

Scott and Marshall (2009) define data as "Information collected from observation of measurement from which an attempt is made to develop generalizations or conclusion is called data". Likewise, Kothari (2004) defines data as "The quantities, characters of symbols on which operations are performed by a computer, which may be stored and transmitted in the magnetic, optical or mechanical recording media is data".

Many social science researchers and research scholars may face a challenge to gather reliable and authentic data which can give valid result in their research. Depending on their nature of disciplines and study area, social science researchers can use appropriate techniques of data collection. The study area of social science is too broad to collect data that the researcher may require a large variety of data.

The majority of social science research includes data from the various social fields such as people, ethnicity, caste, economic level, religion, culture, and their occupations. It is not possible to cover the data of the broad area as it can take more time and efforts for an individual or a group, so a social science researcher has to collect data using some convincing sampling procedures. For this, he/whe innds to have better information about the sources of data.

Sources of data

There are two main sources of social data:

a. Documentary sources (Secondary sources): The secondary sources of data are the books, journals, reports, mimeographs', unpublished articles, reports, books, and thesis. Secondary data can be collected from the resources like statistical books, year's books, demographic data, journals, textbooks, research report. United Nations is the chief producer of secondary data.

b. Field investigation (Primary sources): Among the primary sources of social data are the census, the survey, and projection and estimation. To collect primary data, many countries across the world have adopted census-taking method regularly, and have provided a vast treasure of society for analysis to the social scientist. The regular census of their population provides comprehensive and high quality data.

Tools of data collection

Data can be collected using various methods or tools depending on the research design. The following tools are mainly used in social science research.

A. Census

The most important source of basic data is the census. It offers a spectrum of population at a particular point of time covering a wide range of areas including socio-economic as well as the demographic condition. In the census, the entire population is studied which can be time consuming and expensive method. The general practice of census-taking is in the interval of five- or ten-years' period. The research can use the census method if the size of the population is small; the availability of full data, inequality in the collection, and it needs 100 percent purity in data.

There is a long history of taking census. It began from ancient times in Egypt, Babylon, China, Palestine, and Rome (Chandan, 1994). It was practised for labor, fiscal and military obligations. At the beginning of the census, it was limited, only heads of households, males, age of military, taxpayer, and adult citizens.

Kingsley (1966) states "The modern census is defined on the total process of collecting, compiling and publishing social, demographic and economic data on a specific time of a country." Sweden census of 1749 is regarded as the first modern census. Since 1790 the United States started census, and England and France followed it in 1801 (Chandan, 1994). The countries with a relatively low level of technological attainment faced such problems as ignorance, suspicion, hostility, deceit which made the task of census enumerator quite difficult.
Census are classified as: i. Defacto, and ii. Dejure

i. Defacto: This type of census involves counting only those who are present physically during the census time.

ii. Dejure: This type of census involves all the people of a country who are permanent residents of a specific area; it does not concern whether they are present or not.

Zelinsky observed a positive correlation between the stage of social and economic development a country has achieved and the quality of the census. Census has some limitations such as changes in the boundary reference point in time and modification of political map.

B. Survey

A complete national record of information would always recognize a census and a survey included only the selected households, village, urban, center collecting information on different social fields regarded as household income, expenditure, employment, and unemployment social characteristics. A survey is conducted for supplementing the census data or for investigating the determinations of particular social attributes. It is conducted in addition to the regular censuses quite often provided information. At present, a survey has become a common method of data collection in both developed and developing countries.

C. Registration

The Registration process might be in practice earlier than the census and the practice of registration was common in ancient China (Chandan, 1994) which might be used to control population growth. In modern times, many countries have adopted this system to keep the record of births, deaths, marriage, divorces, migration. Registration can be used at a single point of time, repeatedly and cumulatively.

The quality and quantum of data collected by the registration can be different from country to country. The records of deaths, birth, marriage, divorces have covered one-third of the world population. In Nepal, the local levels like the municipalities and rural municipalities use registration system.

D. Miscellanies sources

From the above mentioned sources of data collection procedures, researchers may use different types of the report which includes migration, linguistic, social discrimination, economic status, and family structure, ethnicity, cast. This estimation is produced in a variety of ways. The estimation may be derived from the countries' population. United Nations in recent years is increasingly assuming the responsibility of collecting from its member countries and reproducing, regrouping the same incomparable form.

The estimation based on mathematics calculation and projection are main assumed sources of data, these two sources government and different NGO/INGO are lunching project and program which is a fast and easy method of data collection.

E. Sampling

Sampling is a representation of the entire population/universe (Cohen, Manion & Morrison, 2007). Similarly, Kerlinger (1986) defines "Sampling is taking of any portion of a population or universe as a representation of that population or universe". For Good and Hatt (1981), "A sample is the same implies as a smaller representation of a large whole."

Definition of related population, specific sample size, methods of selecting items, determining sample size, implementing a sample plan, and data collection are the main producers of a sampling. Sampling is used to minimize cost and time. Sampling describes the processing of selecting a sample from the target population. The sample survey is effective because of its greater scope, accuracy, reliability, high quality of work, less time, and chief. Sampling is useful on a huge collection, lack of sources, 100 percent purity, equality in collection, destructive nature are an impossible collection.

Sampling is a scientific and systematic representative unit of the universe. The result is near to accuracy of purposes, flexibility in micro and depth level, suitable for a broad geographical area. Statement of objective, the definition of population, determination of sample units is basic sampling design and steps. It is not possible to have direct observation of each individual whom they are researching. To adjust the entire population the sample corresponds to the large population-based on the characteristics of interest. The researcher concludes from the sample of the entire population. The size of the sample should not be very large or too small.

Types of sampling

Two types of sampling are practised in social science research. They are probability sampling and non-probability sampling methods.

a. Probability sampling methods

i. Simple random sampling

Random sampling is known as probability sampling or chance sampling. In this sampling, all items of the universe have an equal chance of selection. The lottery is the best example of simple random sampling. "Random sampling is that methods of drowning a portion or sample of a universe that each number of the population or universe has an equal chance of being selected" (Kerlinger, 1986) LOTTERY, CARD,GRID, COIN TOSS are types of simple random sampling. The merits of random sampling include as non-bias, possible to test, collective representation, simplicity, and its demerits are expensive, time-consuming, less possibility.

ii. Stratified sampling

Sampling from the different start of the study area is stratified random sampling. The processes of the research population will categories different groups of age, sex, class, caste. It is divided as proportionate, disproportionate, and weighted stratified random sampling. The merits of stratified sampling include chose the representative unit, represent the universe, practices of a high level of statistical tools, use the scientific process, and mostly it is used in comparative study. Some of its demerits are uneasy, need professional manpower, expensive, and sometimes it is difficult to generalization of data.

iii. Multi-stage sampling

Social science represents various fields and stages of society so it is difficult to select samples, but it needs information. So, the researchers use different tools of data collection. Among them, a multi-stage sample makes researchers easy to choose proper data. It has different stages, so it is called a multi-sage sample. In the process of data collection, the population is divided into different classes and the researcher goes in-depth of study by the categories of the population. Some merits of a multi-stage sampling include as it can represent a big area, it is flexible, and it can compute with limited source, the method is also easy. It has the demerits like complexity, expensive, lesser chance of selection.

iv. Systematic sampling

Systematic sampling is a process of data collection from a regular gap/interval from a series of the properly numbered sample frame. In this process, a number is set in ascending or descending order. Its main positive characteristics include simple, easy to use, and less expensive, it can collect from a large population. It has a few chances of selection and can't use in systematic form.

v. Cluster sampling

When the population is large and widely dispersed, gathering data is administratively difficult. So, to fulfil the need for relevant data sometimes researchers use cluster sampling. In this method, first, the researchers select a study area and divide it into the different clusters. Among these clusters, they select data randomly. Two types of data collection tools can be used in this method simultaneously. This type of sampling is practicing in Nepal on piloting; like practices of government policies like different courses of school level, medical use. It has some merits like the cover a large geographical area, easy methods, cost minimize, flexibility. Some demerits include higher sampling error and less sampling chance.

Non-probability sampling methods

Non-probability sampling is sampling techniques when the odds of any member being selected for a sample cannot be calculated. In which the researcher selects samples based on the subjective judgments of the researcher rather than random selection. In this sample type, the researchers select the sampling items deliberately. In this method, the researchers are free for collection information, so it has both the use and misuse of thought. A major advantage with non-probability sampling to compare to probability sampling is cost and time effective. It is also easy to use and can be used when it is impossible to conduct probability. The disadvantage of this sampling is that it is impossible to know how will you are representing its population; it can't calculate confidence intervals and margins of error. It has no equal chance of the population to participate in the study.

Types of non-random sampling

i. Judgmental sampling: In this sampling, the researcher selects units to be sampled based on their knowledge and professional judgments, so it is also known as purposive and authoritative sampling. It is the only viable sampling techniques in obtaining information from a very specific group of people. If the researcher knows a reliable professional or authority that he thinks is capable of assembling a representative sample.

ii. Accidental sampling: Here, the researcher chooses a sample of his or her convenience. Especially, the researcher collects data who meet accidentally on the way of researher. It is a type of representative method where only the number is counted. It is an easy and cheaper tool for data collection; however, there may be low accuracy. The media people follow this tool mostly.

iii. Quota sampling: In this method, the researcher collects information from the selected number in terms of quota. Especially, the population is divided categorically like age, sex, caste, income, etc. and the required number is selected from each category. It is like stratified sampling.

iv. Snowball: It reflects an analogy to a snowball increasing is size as it rolls downhill. Snowball sampling uses a small pool of initial information to nominate through, their social information. In sociology and statistics, snowball sampling techniques where existing study subjects for their acquaintances. The sample group is said to grow like rolling snowball. As the example build-up, enough data are gathered

v. Specific sampling: Data collection for a special purpose is a specific sampling.

Conclusion

The selection of proper sampling tools provides authentic and reliable data which is essential for the validity of the research finding. In quantitative research, mostly random sampling methods are used which ensures the chance of each unit to be selected. If your study is qualitative, you need to follow a non-random sampling method. However, both methods may have merits and demerits. So, as a social science researcher, you need to pay attention to the selection of the data collection tools to get correct information.

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Fundamental Procedures of Writing Scientific Papers for Quantitative Research

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Abstract

Scientific research articles on quantifiable data are written following systematic procedures. Experienced authors and a substantial number of publications seem to follow the approaches, but there is a need to sensitize early carrier academicians and researchers about the fundamental procedures of writing scientific papers to enhance the quality of their publications. Moreover, articles reflecting the basics of scientific paper writings are also very limited. In this context, this paper aims to characterize elements of the scientific research papers which have used quantitative approaches in their designs. A literature review establishes a fundamental procedure for conducting and disseminating research findings. Based on the information from the secondary sources, early carrier article writers are suggested to focus on four major components, viz. IMRAD, to systematize and structurally communicate the findings. Introduction, the first component, comprises the background, research gaps, and purposes of the study. Methodology, the second component, identifies research design and the statistical strategies to be used in the research. Results, the third component, depict the analysis of data and the results as given by the appropriately used statistical software and packages. Discussion, the fourth component, strengthens the article by comparing the results with the prior studies. Moreover, abstract, conclusion and references are also other essentials in the research article. The information of this paper can be helpful in crafting the research articles for academia and researchers.

Keywords: IMRAD, quantitative data, research article, research design

Introduction

A research article is an outcome of the scientifically carried research project. Since raw data are collected and analysed to conclude from the results of the analysis, this is the original work of the author(s). A scientific experiment is not complete until the results are published (Day, 1998). Research philosophy deals with the source, nature, and development of knowledge. In simple terms, a research philosophy is a belief about the ways in which data about a phenomenon should be collected, analysed, and used (Dudovskiy, 2016). Each phase of the research process depends on presumptions about the sources and nature of learning. The examination reasoning will mirror the specialist's vital suspicions and these suppositions fill in as a base for the exploration procedure. For the most part, inquire about reasoning has numerous branches identified with an extensive variety of orders (Saunders et al., 2012). An examination reasoning alludes to the arrangement of convictions concerning the idea of the truth being explored (Bryman, 2012). Research is the fundamental meaning of the idea of learning that the presumptions made by an examination logic give the support to how the exploration will be attempted (Flick, 2011). Research rationalities can contrast on the objectives of research and on the most ideal way that may be utilised to accomplish the objectives (Goddard & Melville, 2004), but rather the decision of research rationality is characterized by the sort of learning being explored in the examination venture (May, 2011). Research has been classified into different theoretical models depending on the labels used to describe the research partners (Cook, 2012; Russo, 2012), and hence research is an organised, systematic, critical, scientific inquiry or investigation into a specific problem that has been undertaken to find solutions thereto (Sekaran & Bougie, 2018).

In a wider perspective, scientific procedures answer questions and acquire knowledge concerning the observable universe. Many research methodologies are used in an attempt to satisfy these interests by applying different research designs. Hence, every researcher has to figure out the goals of scientific research-description, prediction, and explanation. Research methodology is the theory of correct scientific decisions (Kaufmann, 1944). Scientific research should be concerned with methodological dimensions – planned, structured, and executed to comply with the scientific criteria. The process of scientific research is largely a type of decision-making process. The researcher is required to make a series of decisions based on the research findings. Therefore, methodology refers to the logic of the decision-making process in scientific research. Johann and Marais (1996) claimed that the decision-making process is complex. The field of research methodology is inevitable in its broadness and complexity. The various methods and techniques that are employed, the rationale that underlies the use of such methods, the limitations of each technique, the role of assumptions and presuppositions in selecting methods and techniques, the influence of methodological preferences on the types of data analysis employed and the subsequent interpretation of findings are covered by the research methodology in decision making.

In the context of Nepal, limited literature is available on research methodology. The books contribute a limited portion of writing the research articles. The guidelines issued by the University Grants Commission (UGC), published limited journals, and open-source articles available are the sources of literature to Nepalese authors. However, a substantial number of articles lack unified scientific procedures, but there is a need of enhancing the quality of papers. Also, scientific journal articles have become the parameters for the evaluation of the authors and the institutions (UGC, 2019). Nowadays, academicians and researchers with their scientific research articles are given high priority in academia and industry, but the area of writing a scientific research article is under-explored especially for the early carrier academicians and researchers. Hence, this paper purposes to characterize elements of the scientific research articles authored on a quantitative approach to ease interested students, researchers, and other stakeholders. The paper also aims at depicting standard format for crafting the journal articles for enhancing their quality.

Approach used for this study

Literature review of freely available and open access materials was carried out to establish a fundamental procedure for conducting and disseminating research findings (Grant & Booth, 2009). Published books, the University Grants Commission (UGC) guidelines, and other journal articles were reviewed. Similarly, information on the papers outlining how to formulate scientific research papers using quantitative approach was assessed.

Fundamental steps of writing

The fundamental steps to be followed while writing a research article for quantitative research are writing Introduction, Methodology, and Results and Discussion (IMRAD) (Figure 1), which are described in the following sections.

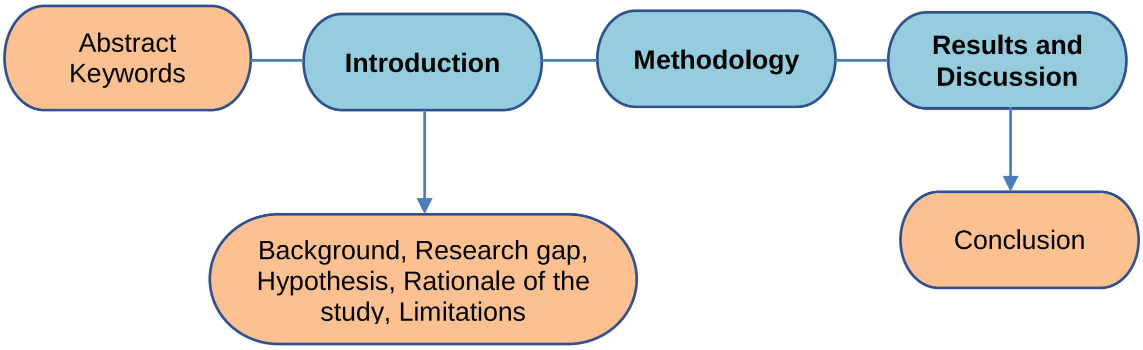

Figure 1. IMRAD framework for writing scientific papers

Step 1 – Ensuring initials and literature review: Steps in writing scientific papers start only when the authors are prepared with initials such as knowing the research questions and get prepared with data collected using standard procedures to fulfill the thirst of research questions. The initials have their own process of attaining. After having a solid outline, the authors can only move to further steps required for communicating it to the wider community. Besides the preliminary reviews previously done to strengthen the initial processes, extensive use of databases, libraries, and the internet should be made to search the existing literature on related topics and scenarios (Table 1). The collection of recent literature with major and pioneer studies in the related field helps in making the research good. A research generally reviews approximately 30 to 50 literatures (Pant, 2016) from different sources. For the beginners, it looks convenient to search the journal articles through Google Scholar and other web addresses for Scimago or Scopus indexed journals. For convenience, all the related articles can be stored in a library of referencing software or be kept creating a folder.

Table 1. Sample checklist to ease the literature review process and select the relevant literature

Author (Year)	Topic	Objective/s	Variables used (DVs & IDVs)	Methodologies	Findings of the prior studies	Relevance to current research

(DV: Dependent variable, IDV: Independent variable)

Step 2 – Introduction writing: The introduction portion should include an adequate background but avoid a detailed bulk of literature citations. The introduction portion should include the background of the study (with a literature review), research gap, hypothesis, rationale of the study, and limitations. Contextualizing variables in the introduction as per the context of scope is required. Paraphrasing the concepts, ideas and writings of existing literature help to save the researcher from plagiarism

Step 3 – Specifying methodology used: The research design is the description of how the research process has been completed and, hence research design is a master plan specifying the methods and procedures used for collecting and analyzing the needed information (Zikmund et al., 2016). It is a framework which includes the considerations that led to the appropriate methodology being adopted, the way in which the respondents were selected, and how the data were analyzed (Flick, 2011). Bryman (2012) suggested that descriptive research design relates to reflecting the experiences of respondents or characteristics of the data and explanatory research design is focused on how to effectively explain the characteristics of a population (Saunders et al., 2012). Explanatory research design is effective in a quantitative framework, where the influence of one variable on another can be established (Kothari, 2004).

The researcher should indicate the time horizon framework - cross-sectional or longitudinal (Bryman, 2012), which indicates the duration of the projected completion of the project (Saunders et al., 2012). The cross-sectional data is dubbed the snapshot time collection, where the data is collected at a certain point (Flick, 2011), and this is used when the investigation is concerned with the study of a particular phenomenon at a specific time. A longitudinal time horizon for data collection refers to the collection of data repeatedly over an extended period and is used where an important factor for the research is examining change over time (Goddard & Melville, 2004). The time horizon selected may not be dependent on a specific research approach or methodology (Saunders et al., 2012). Whereas regardless of the approach used in the project, the type of data collected can be of two types: primary and secondary. Data collection and analysis is dependent on the methodological approach used (Bryman, 2012).

In quantitative research, the sample size, representative segment of a larger population (Bryman, 2012) and how it is selected should be used to establish the reliability of the results of the study. The sample size represents the number of respondents selected from the overall population that is used in the research (Newman, 1998). In quantitative research, the size of the sample is essential in determining the reliability of the results of a study. While doing field collection, sample sizes of less than 30 will tend to produce results where individual respondents may skew the results. In such cases, the larger the sample size the more reliable will be the results (Flick, 2011). As suggested by Roscoe (1975) sample size larger than 30 and less than 500 are appropriate for most research. Sampling techniques are how appropriate sample size is selected for the wider study (Bryman, 2012), hence suitable technique as per the nature of the data (Newman, 1998) should be selected.

Donald and Schindler (2014) believed that with the flow of data a researcher's attention turns to data analysis. Data processing through the correct statistical method is crucial and represents considerable efforts otherwise wrong choices at this stage are likely to produce invalid results and unwanted conclusions (Diamantopoulos, 2000). The statistical packages and software such as Excel, SPSS, R-package, SAS, STATA, EViews, Gretl, etc. are available to ease the jobs in data science. Johann and Marais (1996) emphasised the analytical tools of the researcher; the instruments employing which he or she can make sense of the phenomenon that is being investigated. Statistical conclusion validity refers to the ability to conclude statistical evidence (Austin, Boyle & Lualhati, 1998; Cook & Campbell, 1976; Sackett & Larson, 1990). The application of the appropriate statistical test or analytical procedure is important for evaluating statistical conclusion validity since the underlying assumptions may limit their applicability, and these approaches should be mentioned in this section.

Step 4 – Writing results and discussion: The results should be written in clear language reflecting statistical significance also. The proper statistical procedures have to be maintained for the accuracy of interpretation. The results produced by statistical analysis should be used to describe the basic features and to test the hypotheses respectively; where the analytical techniques provide researchers with simple, yet powerful, statistical tools which help to further their understanding of research issues (Peters, 2002). The relationship between the variables and the effect of independent variables of the dependent variables should be compared for consistency and inconsistency with the previous studies in the discussion part. An in-depth discussion leads the research to the quality of a high standard. The use of statistical and research language limits the readability of the general readers; and hence the conclusive sentences in simple language adds value in the scientific research article. The clear indication of the implication of the study to the policymakers, academicians, practitioners, or others as well as scope for the future researchers helps to strengthen the quality of the paper.

Conclusion

This paper suggests early carrier authors writing scientific research articles to move forward with standard content and format. A very concise and informative abstract, followed by the introduction (I) containing background, research gap, hypothesis, rationale of the study and limitations; methodology (M) describing the research design; results (R) written in the research language and (A) the discussion (D) showing the consistency and inconsistency of the results with prior studies; along with the conclusion written in a reader-friendly language in lucid adds the value in the article. Besides, the focus should be made on including a list of references of the works cited ensuring that the citations are correct and complete. In addition, the researchers are recommended to follow the format, typeface, style of citation, and referencing as advised by the journal. The information of this paper can be helpful in crafting the research articles for interested students, researchers, and other stakeholders.

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Sampling, its Importance, and Role in Research Methodology

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Abstract

Research becomes unable to include all the participants in the research and an alternative to it is a sampling. Sampling is the process of including a few from a large making the few as the representative of the large. In social science research, the role of sampling is very important in the sense that a researcher becomes unable to include all the units in the research process and sampling serves that purpose. This paper is an attempt to shed some light on sampling, sampling terminologies, the process of sampling, types of sampling, and considerations to be made while sampling. Its attention is not only on a particular research paradigm; rather it has equally focused on both qualitative research as well as quantitative one too. At the last formula has been presented so that while estimating sampling, the researcher can consider so that sampling or the estimation can be representative of the whole population.

Keywords: Sampling, sampling terminologies, sampling procedure, the formula for sampling

Introduction

The term "sampling" in research methodology is often used as a basic part of the research. It is a general feature of social inquiry to design and select samples for research no matter whether the research is qualitative or quantitative. Even if the study involves very small populations or single case studies, still there is a need for decisions about the people, setting, and place (Burgess, 2002). Similarly in field research or ethnographic research, sampling is required as the researcher cannot observe or record everything that occurs (Burgess, 2002). The task can be reduced by the use of sampling in research which includes views, opinions, and attitudes the larger group in one way and includes a similar trend of the larger group in another way. Because of this reason, there is a need for sampling in research methodology. The quality of a piece of research stands or falls not only by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy that has been used (Morrison, 1993).

Sampling has been defined variously by various scholars and some of them are as follows:

Crano, Brewer, and Lac (2014) state that sampling is the procedure a researcher uses to gather people, places, or things to study. Research conclusions and generalizations are only as good as the sample they are based on. Samples are always subsets of small parts of the total number that could be studied. Similarly, Yin (2018) defines "Sampling…is the process of selecting a few (a sample) from a bigger group (the sampling population) to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group". According to Kumar (2012) sampling is a process of representing a bigger group of something by its small portion and the small portion becomes the representative of the bigger group.

Likewise, Brownson, Baker, Deshpande, and Gillespie (2017) argue that sampling refers to planned ways of selecting subjects. Since most social research is based on studies of people, sampling generally refers to the simple question, which people are going to be studied? Thus, to draw a sample of individuals is to determine who will be studied.

Thus, from the above definitions, the point of reconciliation can be made that "sampling is a small specimen or a separated part of the whole population, representing its general qualities, as far as possible" and it is used whenever the researcher is unable to incorporate every population in the study. Moreover, its purpose is to include representation of the whole into a part as the part should represent the character of the whole.

Sampling terminologies

To understand the words that are typically used in sampling let's take an example that will make to understand the jargons used in sampling clear. Suppose that you want to know the average age of the students who study M. Ed in Prithvi Narayan Campus Pokhara. In this regard, it is very difficult to include all the students who study on the campus because of the constrain of time and resources available to you as well. In such a situation, you need to select a sample that contains the average age of the students whose age you want to investigate. The followings are some typical terms that researchers use while discussing sample and sampling:

Population

A population is the total group of people about whom you are researching and about which you want to conclude (Crano et al., 2014). Likewise, Yin (2018) describes it as "the class, families living in the city or electorates from which you select a few students, families, electors to question to find answers to your research questions are called the population or study population and are usually denoted by the letter (N).

It is common for variables in the population being denoted by Greek letters and for those in the sample to be shown by Latin letters. For example, a standard deviation of the population is often shown with s (sigma), whilst of a sample is's'. Sometimes as an alternative, capital letters are used for the population (Cohen, Manion, & Morrison, 2007).

Sample

The group of people, events, situations, places, etc. from whom you collect the required information to estimate or measure what you want to measure in your study is known as a sample.

Sample size

The smaller number of people, events, situations, places, etc. from the total or larger group from whom you obtain the required information is called a sample size. Following Kumar (2019), the sample size is usually detonated by the letter (n).

Sampling design/Sampling strategy

The particular strategy or technique of selecting the sample that you do is known as the sampling design or sampling strategy. In other words, the way you – as a researcher – select the sample in your study is known as sampling design or strategy. For the above example, it might the first 50 students that you meet or keeping their names in a box and selecting just 50 out of the total students, etc.

Sampling unit/Sampling element

The person, event, situation, place, etc. that become the basis for selecting your sample can be termed as a sampling unit or sampling element in the study population. From the above example, the individual student who studies in Prithvi Narayan campus in M. Ed. second year can be a sampling unit or sampling element.

Sampling frame

It is the list of all people, events, situations, places, etc. in the study population from whom you are planning to select the representative number of people, events, situations, places, etc. in your study. According to Kumar (2019) If all elements in a sampling population cannot be individually identified, you cannot have a sampling frame for that study population". On the other hand, if all the elements are available in the study population preparing a sampling frame is a must. So, the frame may consist of either a list of the units or a map of areas, in case of a sample of areas is being taken.The frame should be accurate, free from omissions

and duplications, exhaustive, adequate, up to date and the units should be identified without ambiguity. For the above example, the name list of all the students who study M. Ed. second year in Prithivi Narayan Campus is the sampling frame for your study.

Sample statistics

Kumar (2019) advocates that "Your findings based on the information obtained from your respondents (sample) are called sample statistics close". For the above example, the average age of the students who study M. Ed. second year in Prithivi Narayan Campus which will be calculated from the information obtained from those students who responded to your question on age. Creswell and Creswell (2017) further assert that sample statistics become the basis of estimating the prevalence of the characteristics (average age) in the study population.

Population parameter/population mean

The estimate that you arrive at from sample statistics is known as population parameter or population means because from sample statistics you can estimate the answers to your research questions in the study population. In other words, the characteristics of the sampling population that you want to investigate by sampling them is known as the population parameter or the population means (Kumar, 2012). For the above example, the average age of the students who study M. Ed. second year in Prithvi Narayan Campus is the population parameter or the population mean.

Saturation point

It is mostly used in qualitative research than quantitative research as sampling in qualitative research is done or informants are met to find out new information. So, regarding this, if you reach a stage where you do not find any new information from your respondents is known as saturation point.

Sampling error

A sample is expected to mirror the population from which it comes; however, there is no guarantee that any sample will be precisely representative of the population. The chance may dictate that a disproportionate number of untypical observations will be made.

Sampling error can make a sample unrepresentative of its population. Sampling error comprises the differences between the sample and the population that are due solely to the particular participants that have been selected. The main cause of sampling error is "Chance" that is - the error that occurs just because of bad luck. This may result in untypical choices.

Unusual units in a population do exist and there is always a possibility that an abnormally large number of them will be chosen. The main protection against this kind of error is to use a large enough sample (Denzin, 2018).

Why to sample?

Sampling is done in a wide variety of research settings. Listed below are a few of the benefits of sampling (which are paraphrased from Wilkins, ibid) in which most of the scholars are agreed upon:

Reduced cost: It is less costly to obtain data for a selected subset of a population, rather than the entire population. Furthermore, data collected through a carefully selected sample are highly accurate measures of the larger population.

Speed: Observations are easier to collect and summarize with a sample than with a complete count. This consideration may be vital if the speed of the analysis is important, such as through exit polls in elections.

Greater scope: Sometimes highly trained personnel or specialized equipment limited in availability must be used to obtain the data. A complete census (enumeration) is not practical or possible. Thus, surveys that rely on sampling have greater flexibility regarding the type of information that can be obtained (Cohen et al., 2007).

Principles behind sampling

Kumar (2019) advocates the following principles behind choosing a sample. They are summarized below:

In a majority of cases of sampling, there will be a difference between the sample statistics and the true population mean, which is attributable to the selection in the sample.

The greater the sample size, the more accurate will be the estimate of the true population mean, and the greater the difference in the variable under study in a population for the given sample size, the greater will be the difference between the sample statistics and the true population mean.

Principles of sampling theory

One way or another chief aim of sampling theory is to make it more effective so that the answer to a particular question is given in a valid, efficient, and economical way. There are three theories behind sampling (Cohen et al., 2007).

Principle of validity

This principle states that the sampling design provides valid estimates about population parameters. Validity in this regard refers to the sample should be so selected that the estimates could be interpreted objectively and in terms of probability. Thus, this principle ensures that there is some definite and pre-assigned probability for each individual in the sampling design.

Principle of statistical regularity

This principle, according to Cohen, Manion, and Morrison (2010), has its origin in the theory of probability. This principle can be defined in the following way:

"A moderately large number of items chosen at random from a large group are almost sure on the average to possess the characteristics of the large group".

So following this principle, it stresses the desirability and importance of selecting sample designs where inclusion of sampling units in the sample is based on probability theory.

Principle of optimization

This principle takes into account the desirability of obtaining a sampling design, which gives optimum results. In other words, optimization is meant to develop methods of sample selection with the estimation which provides (i) a given level of efficiency with the minimum possible resources, and (ii) a given value of cost with the maximum possible efficiency. Therefore, the principle of optimization minimizes the risk or loss of sampling design, that is to say, that this principle stresses up obtaining the most advantageous results with minimization of the total loss in terms of cost and mean of sampling error.

Method of sampling or sampling type

The method of selecting a sample is of fundamental importance in sampling theory and usually depends upon the nature of the investigation. The sampling procedures which are commonly used may be broadly classified under the followings:

- Probability sampling (Random) designs
- Non-probability Sampling (Non-random) designs
- Mixed Sampling designs

Probability (random) sampling

The term probability sampling is used when the selection of the sample is purely based on chance. The human mind has no control over the selection or non- selection of the units for the sample. Every unit of the population has known nonzero probability of being selected for the sample. The probability of selection may be equal or unequal but it should be non-zero and should be known.

Likewise, Kumar (2019) asserts that for a sampling design to be called as random or probability sample, each element in the population must have an equal and independent chance of selection in the sample. Equal implies that the probability of selection of each element in the population is the same; that is, the choice of an element in the sample is not influenced by other considerations such as personal preference. The concept independence means that the choice of one element is not dependent upon the choice of another element in the sampling; that is, the selection or rejection of one element does not affect the inclusion or exclusion of another". Furthermore, Cohen et al. (2007) define it as "…because it draws randomly from the wider population, will be useful if the researcher wishes to be able to make generalisations because it seeks representativeness of the wider population. It also permits two-tailed tests to be administered in the statistical analysis of quantitative data. Probability sampling is popular in randomized controlled trials".

So following the explanation of Cohen et al. (2007) probability or random sampling is the scientific method of selecting sampling according to some laws of chance in which each unit in the population (universe) has some definite pre-assigned probability of being selected in the sample. Moreover, the following deductions about the probability or random sampling can be made from the above discussion:

- Each unit in the sample has an equal chance of being selected.
- Sampling units have different probabilities of being selected
- The probability of selection of a unit is proportional to the sample size.
- Reduces bias in selecting a sample

The followings are the types of probability or random sample:

Simple random sampling (SRS)

It is one of the commonest methods of sampling in research in which the ample is drawn unit by unit, with equal probability of selection for each unit at each draw. (Cohen et al., 2007) mention that each member of the population under study has an equal chance of being selected and the probability of a member of the population being selected is unaffected by the selection of other members of the population, i.e. each selection is entirely independent of next.

Therefore, simple random sampling (SRS) is a method of selecting 'n' units out of the total population of size 'N' units by giving the equal probability to all units. It is a sampling procedure in which all possible combination of 'n' units that may be formed from the population has the same probability of selection. It is sometimes referred to as unrestricted random sampling. If a unit is selected and noted and returned to the population before the next drawing, this procedure is called simple random sampling with replacement. If every selected unit is not returned it is called simple random sampling without replacement. The following procedure can be adopted to conduct SRS:

Lottery method

In this method, a ticket or slip of paper is used with a unique code that will be administered to each unit in the sample population. So, in it each unit of the population has its identification mark from 1 to N. It is a simple procedure in which the selection of each element is done. All the slips are placed in a container or vessel, which is stirred up or mixed so that the prediction of an element cannot be made before each draw of a unit. After that, the researcher takes out units of sampling until s/he reaches the required number of units from the population.

Use of random number table

It is an arrangement of digits 0 to 9, either in a linear or rectangular pattern, in which each position is filled with one of these digits. A table of random numbers is so constructed that all numbers 0, 1, 2, 3, 4, …….9, appear independent of each other. Some of the commonly used random number tables are:

Tippet's random number tables
Fisher and Yates tables
Kendall and Smith tables
A million random digits

The best way to choose a random sample is to choose unites through a row or column one-by-one with the help of a table of random numbers. By considering two digits, the researcher can obtain numbers from 00 to 99, all having the same frequency. Similarly, three or more digit number may be obtained by combining three or more rows or columns of these tables.

Yin (2018) mentions that "the simplest way of selecting a sample of the required size by selecting a random number from 1 to N (population size) and then taking the unit bearing that number". This method is more simple and faster than the lottery method. But involves several rejections since all numbers greater than N appearing in the table is not considered for section.

Stratified (random) sampling

For the homogeneous population SRS is convenient to apply but, in the case, if the population is heterogeneous applying SRS is beyond the imagination of a researcher. In such a case, the researcher has to search an alternative to SRS because SRS does not serve as a good design to represent the ample units from each characteristic. If there is heterogeneity among the population, they should be divided in such a way or group that the divided ones have similar characteristics. In research methodology, such division of sampling unit into a homogenous group is known as strata. After dividing them into strata, the SRS technique can be used to draw the unit from strata. Ultimately, the results from the samples from all the strata are combined to estimate the population parameter.

Cohen et al. (2007) assert that "the main objective of stratification is to give a better cross-section of the population to gain a higher degree of relative precision. To achieve it, followings considerations should be made by a researcher: close quote

- Formation of strata
- Number of strata to be made
- Allocation of sample size with each stratum
- Analysis of data from a stratified design.

While synthesizing the ideas advocated by (Denzin et al., 2018), (Kumar, 2019) and Baker (1999) the following general principles about stratified sampling can be made:

- The formulated strata should not be overlapping to each other and each stratum should represent the study population.
- The stratification of population should be done in such a way that strata are homogeneous within themselves, to the characteristic under study and heterogeneous within themselves.

- In practical situations when it is difficult to stratify to the characteristic under study, administrative convenience may be considered as the basis for stratification.

Ball (1990) further divides stratified (random) sampling into two types. They are:

Proportionate stratified sampling

If the researcher draws an equal number of units from each stratum while selecting the sample in his/her study, it is known as proportionate stratified sampling. In each, all the strata get the same number of units to be selected as a sample.

Disproportionate stratified sampling

On the other hand, if the researcher selects an unequal number of units from different stratum while selecting a sample in his/her study, it is known as disproportionate stratified sampling. In it, one stratum can get more number of units to be selected while another might have less number of units. Therefore, if an equal number of units is not selected from all strata, it is a disproportionate sampling.

Cluster sampling

In a random sampling, population is divided into a finite number of distinct and indefinable units, such division of units in sampling is called sampling units. On the other hand, the smallest unit into which the population can be divided is called the element of population. A group of such elements in the sample is known as a cluster. So, SRS and stratified random sampling are based on the researcher's ability to identify every element in the sample but cluster sampling has something different technique. When sampling units are distributed geographically or having common characteristics than others, this sampling is done.

Clusters are generally made up of neighboring elements and, therefore, the elements in the cluster tend to have similar characteristics. The number of elements in the cluster is not restricted. After dividing the population into specified clusters, the required number of clusters can be selected either by equal or unequal probabilities of selection, and all the units in selected clusters are enumerated. In it, if the entire area containing the population under study is divided into smaller segments and each element in the population belongs to one and only one segment, the procedure is sometimes called area sampling so this sampling is also called area sampling. Cluster sampling can be conducted into different stages which are:

Single-stage cluster sample

List all the clusters in the population, and from the list, select the clusters – usually with simple random sampling (SRS) strategy. All units (elements) in the sampled clusters are selected for the survey.

Multi-stage cluster sample

List all the clusters in the population. First, select the clusters, usually by simple random sampling (SRS). The units (elements) in the selected clusters of the first-stage are then sampled in the second-stage, usually by simple random sampling (or often by systematic sampling).

Non-probability (non-random) sampling

This is another type of sampling in which the choice of one unit entirely bases on another unit. So, in it the choice of an element of a sample depends entirely on the discretion or judgment of the researcher. So, it does not follow the theory of probability while sampling but this does not mean that it is not representative of the study population. There might be several situations in which probability sampling cannot be used even if the researcher wants to employ it. For example, if the population is either unknown or cannot be individually identified, non-probability can be used (Kumar, 2019). In such a situation, it is non-probability sampling which serves the purpose. On the other hand, there is no equal and independent chance of being selected in the sample as well. The followings types of non-probability sampling designs can be found:

Quota sampling

In it the researcher fixes the number of the sample to be sampled i.e. quota before visiting the field and if there are groups, s/he fixes the quota from each group as well. The group being specified as to age, sex, income, marital status, etc. and made strata like that of stratified sampling. The primary motive behind quota sampling is the researcher's ease of access to the sample population (Creswell & Creswell, 2017). Once the researcher finishes fixed quota, s/he stops sampling as s/he gets the required number of units in his sample.

Following Creswell and Creswell (2017), quota sampling usually proceeds in three stages". They are:

- The population is classified in terms of properties known or assumed to be pertinent to the characteristics being studied,
- The proportion of the population falling into each group is determined base known, assumed or estimated composition of the population, and
- The researcher is assigned a quota of respondents

Accidental sampling

This sampling design is popular in market survey and marketing as we happen to find programs like Vox-pops in different television channels and FM stations here in our country as well. In this, the researcher simply reaches out to the designated places and takes the cases that fall to hand counting the process until the sample reaches a designated size.

For example, the researcher may take the first hundred persons s/he meets in any one of the pedestrian paths of a road who are willing to provide the kind of information that the researcher is seeking. This type of sampling is economical and convenient which can also afford a basis for stimulating insights and hypothesis where too much accuracy is not needed (Sharma: 1999, p 105).

Purposive or judgmental sampling

If the researcher selects samples according to his/her judgment as who provides the best information that she/he is seeking is known as purposive or judgmental sampling. To put it into other words, the researcher uses his/her self-judgment in the choice of sample and includes those units of the universe in the sample which are conveniences to him/her. In this sampling design, the researcher only selects those units which are average and excludes extreme.

Snowball sampling

Snowball sampling is the process of selecting a sample using networks. To start with, a few individuals in a group or organization are selected and the required information is collected from them. They are then asked to identify other people in the group or organization, and the people selected by them become a part of the sample. Information is collected from them, and then these people are asked to identify other members of the group and, in turn, those identified become the basis of further data collection. The process is continued until the required number or a saturation point has been reached, in terms of the information being sought (Kumar: 2006, p 179).

Estimating sample size

In most of the researches, it is very difficult to include all the population under study in the research. The alternative way is sampling which helps to include the representative population as a sample in the research. Depending upon the type of research, the sample can be varied in one

way and in another the nature of the study, and the time and variable of the study also determine the size of the sample.

Four criteria are used to estimate the appropriate sample size for a study. Sometimes called a power analysis, the primary goal is to collect enough cases to ensure you don't make a Type II error (Beta). Beta is the probability of not rejecting a null hypothesis when it should have been rejected. Power is 1- beta and is defined as the probability of correctly finding statistical significance. A common value for power is .80 or an 80% chance that a random sample will find a statistically significant difference when there truly is a difference in the population. The discussion that follows is focused specifically on 2-tailed tests between two independent random samples. What follows are two examples of power analysis. There are many other approaches and equations for estimating sample size.

Criteria

Significance (alpha): This is the threshold for finding statistical significance. Normally this is set at .05, a 5% chance of rejecting a null hypothesis when there is no significant difference or relationship between the underlying populations. As alpha gets smaller, sample size requirements increase.

Statistical power (1-beta): The probability of finding a statistically significant difference or relationship when there truly is one in the underlying populations. This is also known as statistical power. A power of .80 is common. As power increases so do the sample size requirements.

Expected difference (effect size): This is the expected difference or relationship between two independent samples, known as the effect size. The obvious question is how do we know what difference we will find if we have not yet conducted the sampling? If possible, it may be useful to use the effect size found in prior studies. In many, if not most cases, the effect size is determined by literature review, logical assertion, and conjecture.

Variability in the population: This is the expected variability in the samples. As with effect size, this must either be based on prior knowledge or logical assertion. In the examples that follow, standard deviations will be used for the variability measure. The formulas presented here assume the variability in the two samples is the same (homogeneous).

Sample size estimation for tests between two independent sample proportions

Formula

$$N = 2 \times \left[\frac{\left(z_{cv}\sqrt{2\bar{p}(1-\bar{p})} + z_{power}\sqrt{p_1(1-p_1) + p_2(1-p_2)} \right)^2}{(p_1 - p_2)^2} \right]$$

Where,

N= the sample size estimate

Zcv=Z critical value for alpha (.05 alpha has a Zcv of 1.96)

Zpower=Z value for 1-beta (.80 power has a Z of 0.842)

P1=expected proportion for sample 1

P2=expected proportion for sample 2

$$\bar{p} = \frac{(p_1 + p_2)}{2}$$

Sample size estimation for tests between two independent sample means

Formula

$$N=\frac{4s^2(z_{cv}+z_{power})^2}{D^2}$$

Where,

N= the sample size estimate

Zcv=Z critical value for alpha (.05 alpha has a Zcv of 1.96)

Zpower=Z value for 1-beta (.80 power has a Z of 0.842)

s=standard deviation

D=the expected difference between the two means

Proportion Example

Alpha=.05

Power=.80

P1=.70

P2=.80

$$\overline{p} = .75$$

$$N=2\times\left[\frac{\left(z_{cv}\sqrt{2\overline{p}(1-\overline{p})}+z_{power}\sqrt{p_1(1-p_1)+p_2(1-p_2)}\right)^2}{(p_1-p_2)^2}\right]$$

$$N=2\times\left[\frac{\left(1.96\sqrt{2(.75)(1-.75)}+.842\sqrt{.70(1-.70)+.80(1-.80)}\right)^2}{(.70-.80)^2}\right]$$

$$N=2\times\left[\frac{(1.20+.512)^2}{(-.10)^2}\right]$$

$$N=586$$

Mean Example

Alpha=.05

Power=.80

D=10

S=20

$$N=\frac{4s^2(z_{cv}+z_{power})^2}{D^2}$$

$$N=\frac{4(20)^2(1.96+.842)^2}{10^2}$$

$$N=\frac{4(400)(7.85)}{100}$$

$$N=126$$

Conclusion

As discussed earlier, sampling is a tedious job in research methodology which directly or indirectly projects the reliability and validity of the research. So sampling should be conducted very judiciously to ensure accuracy in the selection of sample and accuracy in the research design as well. Sampling plays crucial role in quantitative research and if it is applied genuinely, bias can be minimized at first. On the other hand, it minimizes the risk of labeling external and internal validity and reliability of the research at hand as well. Even in qualitative research the role of sampling is very important except some historical researches.

On the other hand, whatever the research design is, the proper size of sample ensures how genuine the research study is. Moreover, depending upon the nature of the study, time allocation for the research and the economical aspect of the research at hand determine the size of sample. The fact can be illustrated by the evidence that the thesis we who is we? Write the students because you are a teacher now carry out at master's level has limited time and financial resources. On the other hand, the large scale funded researches have more time and huge financial resources to conduct. So the line of demarcation regarding the size of sample can be drawn that the nature, type and available resources for the research determine the size of sample that should be incorporated in the research methodology.

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New Model of Teacher Professional Development: COVID-19 a Robust Harbinger

Raju Shrestha

Synopsis

With the advent of modern technologies and methodologies around the globe, teacher professional learning has been largely reshaped. They have created a rich and robust impetus for politicians, policymakers, planners, and practitioners to think and rethink about the nature and process of teacher learning. COVID-19 abruptly appeared as a strong stimulus to ignite the modern spirit of technologies and methodologies, though it has some disruptive forces to trigger panic situations to human society including the teacher community. It has taught us different ways of developing adaptive competency and professional resiliency in teachers in the face of the pandemic situation, including online learning, virtual learning, self-determined and self-directed learning, self-regulated and shared regulated learning, and help seeking for active learning.

Scene setting

The term 'teacher professional development' is not a new concept. It is much discussed, much written, and less explored area. Simply, a professional refers to someone who is trained and qualified and displays a high standard of competent conduct in his or her practice. In the field of language pedagogy and learning, attempts have been made to make teachers truly professionals by involving them in a wide variety of activities and programs. Teacher professional development may require many things including training, qualification and commitment, communication and collaboration forums and networks, entry requirements, and so on.

Different scholars have viewed teacher professional development from different perspectives. Some say teacher professional development is the next step when once the teacher's period of formal training is over (Richards & Farrell, 2005). In the same way, some others state that professional development is sometimes used to describe moving teachers forward in gaining new knowledge and skills (Craft, 1996). It can also be said that teacher professional development or growth means enabling teachers to generate their own ideas from classroom practice (Victoria H. in Burns, 1999). By considering these ideas about teacher professional development, it will be fruitful to mention Glatthorn's ideas about teacher professional development. Glatthorn (1995 as cited in Reimers-Villegas, 2003) states that:

> Professional development, in a broad sense, refers to the development of a person in his or her professional role. More specifically, it is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically. Professional development includes formal experiences such as attending workshops and professional meetings, mentoring, etc. and informal experiences such as reading professional publications, watching television documentaries related to an academic discipline, etc. (p. 11).

Overall, from the above definitions, certain characteristics of teacher professional development can be drawn that support and promote our understanding. Martine, L.E. et al. (2014) list some of the major characteristics of successful teacher professional development programs. They include:

- Professional development is instructive. It supports teachers as they gain content knowledge and acquire instructional strategies.
- Professional development is reflective. Teachers need to reflect deeply over time, focused on theory-based practice.
- Professional development is active. Teachers are thinkers and intellectuals. They should be engaged in the learning process.
- Professional development is collaborative. Collaboration challenges teachers to expand their thinking.
- Professional development is substantive (i.e., content-based). It should be extensive and intensive focusing on specific topics.

From the above discussions, it can be said that teacher professional development which we are talking cannot be done by a single means. It involves multi-level changes which therefore demand multi-level experiences and activities. It demands from the teacher to be classroom learner and action researcher about classroom problems, cultural diplomats within the cross-cultural settings of classrooms, and so on (Sharma & Shrestha, 2012). It demands every teacher to be reflective, creative, and critical practitioners. Therefore, teacher professional development is a personal journey or personal mission rather than something that can be done and prepared by others (Shrestha, 2077). Teachers are the self-agency. They put all the responsibilities on their own shoulders for their own learning and development how much they want to grow or develop.

Survey of the practice of teacher professional development

The genesis of teacher professional development can be traced back to 2004 B.S. in Nepal. This is the time of formal teacher education in Nepal. Since then the concept of teacher professional development got priority. This sector has crossed many ups and downs to arrive in the modern form of teacher professional development. When we review the historical developments of the field, we see four types of legacies or trends being practised (Shrestha, 2077). They are:

- The first wave (beginning in the 1960s) - Focus is on teaching skills and pedagogy. The goal is teacher internal effectiveness.
- The second wave- (around 1990s) - Focus is on student learning and content knowledge. The goal is interface effectiveness.
- The third wave- (after the 2000s) - Focus is on the collaborative culture of organization. The goal is future effectiveness.

To put critical eyes on the different waves of teacher professional development, Nepalese teacher professional development practice adopted all the three waves. We started from content and pedagogy focused practice to the collaborative culture. In recent years, we are practicing a collaborative culture or to be more specific, reflective practice. We crossed the two previous eras of teacher professional development, but they blur into the background of present practice. They still reverberate in the present time. It is because of the reason that most of the teachers still lack both content and pedagogic knowledge. They do not have rich and robust content and pedagogic knowledge. Therefore, borrowing some flavors from earlier practice is not only necessary but also it is mandatory.

Recently, with the advent of modern technologies and methodologies, we are witnessing a great evolution in the process of learning. The spirit of new learning which is supported and promoted by modern technologies and methodologies has further been ignited by the abrupt appearance of COVID-19. Although COVID-19 has created a panic situation in human society including the teacher community, it has provided an opportunity to create a new model of learning in education. In a visible sense, every human organization has been lockdown and shut down for a few months. It is impossible to physically meet and conduct face-to-face mode of interaction and transaction between human beings. The same is the case with educational institutions. In the academic sector too, academic exchanges attending physically are completely disturbed. Classroom and training agencies are completely obstructed due to the global spread of COVID-19. At the time of adversity, looking for an appropriate learning atmosphere in both educational institutions and training agencies is like sketching future trajectories to make a new journey in the ancient route. Planners and practitioners have to sketch future trajectories to give new dynamism in the conventional academic exchanges. In Nepal too, the Centre for Education and Human Resource Development (CEHRD), an apex body for designing and developing policies about teacher professional development has done a meticulous effort to respond to lockdown and shut down situations and to lubricate the process of teacher learning at the face of adversity. As a result, "Teacher Professional Development through Distance Mode: SOP-2077" has been developed. This document introduced a new wave in the field of teacher professional development. This new wave can be taken as the fourth wave in the realm of teacher learning. This is given below.

- The fourth wave- (after the 2020s) – Focus is on professionally resilient teachers, developing adaptive capacity, online and virtual presentation through synchronous and asynchronous modes of delivery.

In Nepal, based on the fourth wave we have recently adapted a flipped model of professional development. This model of teacher professional development is discussed in detail in the following heading.

A shift in the model of teacher professional development

Flipped learning, in simple terms, refers to homework at school and school work at home. This concept was originally developed for classroom learning. Later, the idea is transmitted to the teacher learning too. Flipped learning has four pillars. They are:

- Flexible environment
- Learning culture
- Intentional content

- Professional support

Applying the principle of the flipped classroom, Justin Moorman (as cited in OECD, 2018) introduced the idea of "flipped" professional development (FPD) for teachers. This model allows teachers to personalize learning based on their professional development goals and places them at the center of their own development. According to Moorman, flipped PD activities are divided into three phases:

- Engagement
- Collaboration
- Application

By and large, the flipped model is based on an online mode of delivery. In online training delivery, there are two main modes of learning. They are synchronous and asynchronous modes.

Synchronous mode- Trainees and facilitators meet at the same time from different places through different online channels such as Zoom Meet, Microsoft Teams, Skype, etc. They join in an online meeting and collaborate and share their experiences, expectations, experiments, and get exposure to the contents being planned to discuss. It is an online face-to-face mode. In loose terms, we can say this is real-time learning.

Asynchronous mode- New content is available for the trainees through digital apps, mostly through PowerPoint presentations, videos of pre-recorded lectures, and digital texts. Materials can be questions, queries, doubts, e-books, journal articles, research papers, slides, newspaper, audio clips, video clips, web links, etc. supported by some kind of worksheet given by the facilitator. Trainees have to go through the materials and make notes or prepare worksheets. This is, in loose terms, the offline mode where trainees have to sit at their own place and do the searching, selecting, reading, reflecting, exploring, and exploiting the main messages and meanings being based on the mandates given by the facilitator. Trainees have to prepare a daily diary as a separate event. Based on the diary maintained in the asynchronous mode, trainees share their ideas when they meet in synchronous mode.

In the flipped model of professional development, trainee teachers will have extensive study and intensive discussion on the subject matter. Therefore, during this flipping process, we see engagement, collaboration, and application of learned knowledge and skills. This is the fourth or latest model of professional development that is currently being practiced in Nepal. This model came into practice by the effect of COVID-19. The simple framework of the flipped model of professional development can be presented in the following figure.

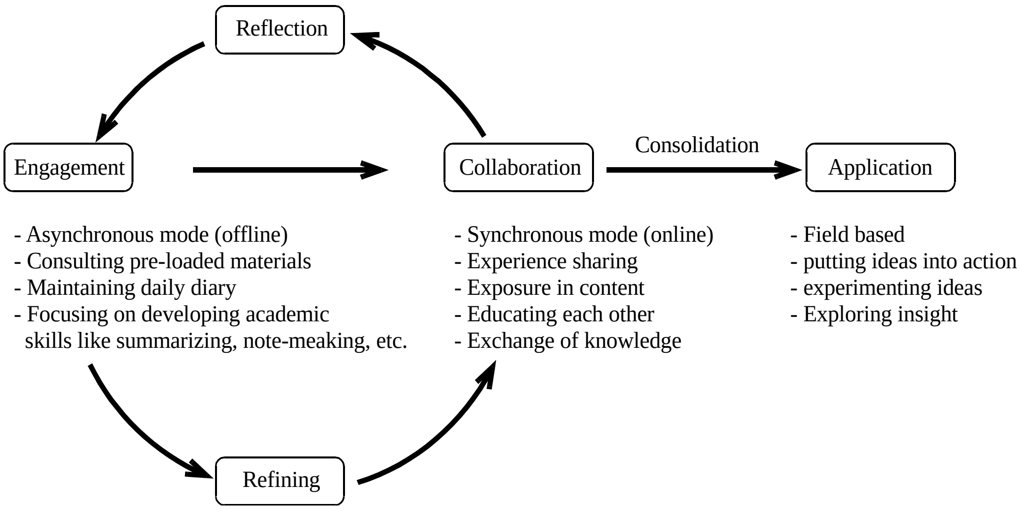

Figure: Flipped model of professional development (Source: Shrestha, 2077)

Overall, the flipped model is based on the principles of personalizing, individualizing, localizing, modernizing, and customizing learning for adaptive competence and teacher professional resilience. This sounds good in theory but practice determines its usefulness and relevancy in fostering teacher professional development in real sense.

Shifting in a new model is not a panacea

As we know that action speaks louder than words, venture in words must be properly followed by the venture in actions. Adam Urbanski, vice president of the American Federation of Teachers points out that "Change is mandatory; improvement is optional. Change for the sake of change is no value." Every significant change should trigger powerful emotions including loss of known, fear of the unknown, anxiety about failure, anger at those who resist or push too hard, uncertainty over the consequences of what is being changed (Cloke & Goldsmith, 2007). So, those teachers who do not want to prepare themselves won't get benefits from this model of development. Similarly, those who are familiar and feel comfortable with traditional lecture-driven facilitation do not show their willingness to take responsibility for their learning and to monitor their own progress. There is a concern that trainee teachers who do not prepare before attending the sessions will not be able to actively participate in learning activities during the session. It seems that the flipped model is not fully suited for those who are less inclined to self-directed learning at home in general and to learning new content through digital tools in particular (Blau & Inbal, 2017).

Trainees should be more active, better prepared, curious, enthusiastic and entrepreneurial, and never-ending satisfaction seekers in their personal and professional development. Otherwise, there is no difference than the previous models. Only shifting or introducing change is not a panacea. It is the attitude, behavior, and efforts of the practitioners that determine the significance of a newly changed context. Facilitator and trainee teachers must be clear that the flipped model of professional developmen+9+t is a new shift taken place with 5Cs as the core competencies that should be developed and achieved using technologies. According to Hwang, et al. (2015) technologies need to develop the "core competencies" in education. They are:

- Communication
- Collaboration
- Critical thinking
- Complex problem solving
- Creativity/Creation

These five competencies are abbreviated form of Boom's Taxonomy of Educational Objectives.

Conclusion

A technology-based and self-led model of learning is better than a conventional expert-led model. The self-led model will be supported and promoted by digital technologies. The need for digital technologies in professional learning has further been promoted by the pandemic situation created by COVID-19. Until and unless we don't focus on self-regulation and adaption of the available resources for the sake of personal and professional development, we don't grow and develop. Therefore, the direction of teacher professional development in Nepal should be towards professional resilience. The decisions for professional development should be self-determined and self-directed. And the delivery should be done by using digital technologies.

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Caste: A severe social problem in Nepal

Ram G.C.

Abstract

This article presents the general concept of the caste system, its theoretical discussion, and the level of discriminatory practices found in both the domestic domain and the community level activities. A widely applied and frequently contested model for the system of birth ascribed rank is that of 'Caste', deriving from the example of Hindu philosophy. But there is no particular and clear description of the origin of caste. The religion describes it as created by god whereas the literature shows that it is based on occupation. History also shows the custom of ostracism when people deviate from the given social norms. The social system based on a culture of domination and slavery has scornfully outcasted the individuals creating social hierarchies. This system of untouchability is the major drawback of Hinduism, which is the humiliation of mankind. Discriminating people based on caste positions is completely inappropriate in a modern democratic state and everyone should be prepared to speak publicly in support of social justice. But it is equally dangerous and undemocratic if the people are harassed and exploited based on class hierarchy and inequality. Therefore, the word caste is complex and widely used term because it is peculiar, well-known and in fact, it is valid for many other systems. This should be a matter of debate to the academicians, planners, and policymakers for the social transformations of Nepali society for making it more inclusive, trustworthy, and less hierarchical. The main theme of this article is to discuss the above-mentioned issues along with the historical practices in Nepal.

Keywords: Caste, hierercy, discrimination, New Civil Code, Hinduism

Preliminary

Caste, as people at the very bottom of Nepal's social hierarchy, continue to be a source of discomfort to educated bureaucrats, who in their formal roles regard the caste system as outdated and inconsistent to develop Nepal into a modern state, but who informally are still very much products of their caste conscious upbringings. Even now, the government and many development organizations use euphemisms such as occupational caste, oppressed caste, deprived caste, and disadvantaged groups, instead of speaking them as Dalits. The hesitation to use the term Dalit deflects attention from the everyday reality of caste-based discrimination that must be tackled head-on. In this article, I have discussed some sociological contributions to understanding the caste system because all the students of sociology agree that caste is a complex social phenomenon. There are many tools available for analyzing caste; economic, social, political, or combination of any of these.

Theoretically, caste may be defined 'as a small and named group of persons characterised by endogamy, hereditary membership, and a specific style of life which sometimes includes the pursuit by a tradition of a particular occupation and usually associated with a more or less distinct ritual status in a hierarchical system (Beteille 1965:46)'. Berreman (1967:70) has defined the caste system ' as a system of birth ascribed stratification of socio-cultural pluralism and hierarchical interaction'. In the words of Sinha (1967:94) 'caste is a hierarchy of endogamous groups organised in a characteristic hereditary division of labour. The other use of the word 'caste' is to define the system of social organization found in traditional regional societies of India and among adjacent Hindu and related populations in the territories of Bangladesh, Nepal, and Sri Lanka and surviving to a large extent to the present day.

Historical and legal context

Today's social discrimination derives its legitimacy from the ancient scriptures of the Hindu religion. These scriptures provide for this on the assumption that there is no uniform source of the origin of the human population. The Vedas, which are the most ancient among these scriptures, mention that the bodily parts of the god of creation are the initial source from which people were created in society. It is believed that the god produced people from four separate parts of the body and attributed them with different types of character assigning them different roles and responsibilities. The four different social groups were identified as Brahmans, Chhetries, Vaishyas, and Sudras respectively and which are known as 'The four Varnas' in Hindu social structure. These legendary ideas about differences in the origin as well as the related roles and responsibilities of people are the basis for providing support to Varna, a model of social organization as well as caste-based division and discrimination in society.

In the late 14th century, caste-based social discrimination was a direct consequence of the prevailing traditions. The formation of Muslim hegemony in Mogul India and the expansion of Christian faith in this territory, after it came to be a part of the British Empire, motivated the then Hindu rulers of Nepal to provide state-level protection for this religion. From that day, the Nepali state has made frequent attempts to define the caste structure of this population. It has even provided legal support to social relations based on the principles of the caste system. Furthermore, it has identified discriminatory contents in those relations and declared them illegal through the introduction of favourable legal provisions.

During this process, Jayasthiti Malla divided the Newars of Kathmandu valley into 64 castes. Later, Ram Shah of Gorkha implemented some strict regulations, prescribing different qualities of garments for different castes, prohibiting low caste people from living in Pakka houses, and requiring them to settle in areas close to riverbanks or rural areas. During the Malla period and consequently, the Sen Rulers of Palpa provided their support to the caste-based organization of society. However, until the mid-19th century, caste rules induced by the state were effective only in specific localities. The Nepali state attempted to universalize these regulations for all categories of people living in all parts of the nation through the introduction of the Muluki Ain in 1854.

The Code redefined the Varna model to comply with Nepal's social environment. Firstly, it classified the caste groups into pure and impure classes and then divided them again by ranking them into five broader categories. The Tagadharies were placed in the first rank. Brahmans, Chhetris, Sanyasis, and some high caste Newars were also incorporated into this caste group.

People belonging to different types of ethnic and tribal groups were ranked into the second and third categories. Despite both these caste groups being termed as Matwalis, their ranks in the caste order were determined by the punishment imposed upon their members if they committed the same crimes.

The fourth and the fifth categories were considered as containing the impure population. Members were regarded as touchable and untouchable, respectively, by the pure castes. The Civil Code also approved some references in the privileges provided by law to people belonging to these different caste categories. This Code governed the pattern of social relations until its provisions were amended and replaced by the New Civil Code in 1963.

A political movement launched in 1950 replaced the prevailing system of oligarchic rule with a multi-party system of government. Accordingly, constitutional procedures were introduced into the system of rule of the country. These constitutions, including the constitution of the Kingdom of Nepal 1990, guarantee the right to equality. They state that the state shall not discriminate against citizens based on religion, caste, ethnicity, sex, colour, and belief. To abide by these provisions, the New Civil Code erased privileges based on caste. It declared the practice of untouchability illegal.

Caste-based discrimination in practice

Discrimination marked by differences in touchable and untouchable status is one of the major forms of caste-based discrimination practiced in Nepal. This section attempts to summarize these practices as they occur in the domestic domain and the domain of community life.

The practice of caste discrimination still occurs despite the law declaring it illegal since the promulgation of the New Civil Code 1963. In this form of discrimination, people of touchable castes perceive that they or their objects become polluted if touched by members of Dalit castes. Bhattachan et al. (2003) investigated the existing practice of caste-based untouchability and identified 205 areas in which Dalits are discriminated against by non-Dalits. They concluded that discrimination is still inherent in the denial of entry, services, access to common resources, social relationships, participation, etc.

Discrimination in the domestic domain

This section attempts to summarize these practices in which discrimination occurs in everyday activities. In the most of Hill and Terai region, non-Dalits including ethnic people from all caste do not allow Dalits to enter their homes, especially those with a kitchen. In the case of Terai, The Doms are the most ostracized among all caste groups. Still, they are not allowed to enter any type of house in any situation. Food is provided separately on a lotus leaf or Saal leaf. However, they are allowed to provide services in construction, repair, and thatching of roofs of houses, except the kitchen. Another important form of discrimination made by non-Dalits is their denial to establish any form of kinship relation with the Dalits. An example of such is recently found in the case of Soti, Rukum, which took place on 23 May 2020, where six youths lost their lives in the name of getting married to a non-Dalit lady. According to the Nepal Police, 21 years old, Navaraj B.K. with 18 others had gone to Soti village in Chaurjahari to marry a 17 years old upper-caste lady. This case has proved that a marital relationship between members of Dalit and non-Dalit castes is not entertained in any area.

Discrimination among Dalits and non-Dalits also appears in the form of language they use to address each other. Dalits address their non-Dalit neighbours more politely and respectfully than by non-Dalits to Dalits. This level of respect is shown when they reach the houses of each other. Dalits provide the best cushions they have if non-Dalits go and rest in their houses. on the contrary, the non-Dalits provide the Dalits a mat at best or they have to sit on the bare floor in a corner of their courtyard. Overall, whenever the divisions are marked by touchable status, it affects all types of relationships that exist between the people of these categories in their domestic domain.

Discrimination in community life

Discrimination in the domain of community life can be divided into two different areas. One such area is related to the religious life of the community. Another area is marked by the opportunities available for people of touchable and untouchable castes in the use of community-based resources.

Discrimination in religious life of the community

Hindus in Nepal perform a variety of religious rituals and celebrate many festivals at different periods throughout the year. Both in hill and Terai regions, the Hindu upper-caste including some of the ethnic groups perform worships called 'Satyanarayan ko Puja' and 'Rudri' for purification. The rituals related to these and other types of worship are overseen by a Brahmin priest. However, these priests do not provide these services to Dalit households. The Dalits have priests from their own caste groups to perform the rituals related to birth, marriage, death, and other types of ceremonies. Dalits in both hill and Terai as well as in urban and village areas are not allowed to enter the temples of gods and goddesses established by the upper caste people. In contrast, the upper and middle caste Hindus require the services from their Dalit caste neighbours in many of their social and religious ceremonies. For example, the Damais in the hills are invited to beat drums and play music during festivals as well as in marriage and other types of ceremonies. Even when they have been invited, the Dalits are positioned in a separate location to avoid physical contact with people of the higher caste.

Discrimination in community-based resources

Sources of drinking water are an important resource that is usually shared by members of a community. Among Hindus, there is a belief that water is a purifier of things that are polluted and it is susceptible to being polluted. Consequently, upper and middle caste people consider the Dalits to be among the pollutants of the water.

Various studies illustrate that non-Dalits do not allow their Dalit neighbours to collect water from sources that are used by them for their domestic use. Similarly, it is shown that non-Dalit households in the hill region of all provinces are unwilling to use water touched or offered by Dalit neighbours.

In short, caste as a form of social discrimination can be observed in both the rural and urban areas. It is highly manifested in domestic and religious domains compared to that of the business sector. Such discriminatory practice even occurs among the various castes within the Dalits themselves.

Conclusion

As Discussion in the above writing, untouchability is a social practice found to be the most severe form of discrimination in Nepal. This is usually found in the form of some groups of people avoiding to touch members of a group with a lower status. The Dalits, as victims of such social behaviour, are prohibited from interspersing with all other categories of the population. Consequently, they can't be part of social activities in their locality.

This type of exclusionary behaviour has remained in practice despite no longer being advocated by the provisions of law. In 1963, the New Civil Code declared that they practice of untouchability illegal and hence made it a punishable act. However, the provisions have not been effectively implemented thus this form of discriminatory problem exists in society to date. The effective implementation of legal provisions is, of course, one important strategy required for the solution to this problem. However, legal means alone is not sufficient to upgrade the Dalits from such a marginal social position that has been endorsed through centuries of exclusion. The Dalits as a group of ostracized people are the least educated among all sections of society. Still, they lack adequate access to the productive resources required for making a living. Such social and economic marginality has hindered them from developing adequate courage and confidence to fight for their rightful claims to social justice in society. The lack of representatives for their groups in all levels of decision making positions is an example of such a situation in Nepal.

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Egocentric Barriers in Academic Institutions of Nepal

Sashi Raj Ghimire

Abstract

Hot discussions regarding the quality of education in Nepal pervades all over the country as formal education falls back to contribute to significant changes and prosperity of the country for over many decades. Several researches indicate different reasons behind this condition. However, the problem remains unresolved. Therefore, this paper attempts to study the problem in a new mode, and discovers egocentric attitudes of the workforce of academic institutions mainly responsible for this problem. Egocentrism is such a psychological barrier which causes the manifestations of many adverse effects in the process of pedagogical practices in both schools and colleges. The efforts to remedy such egocentric barriers in time may bring standards in Nepalese education.

Entry

Generally, three core entities occupy people's minds. Few of the people attempt to review the past, some look happy to weave dreams of the future and many more plague themselves with the present. Despite the momentous joy, almost all people living in the present ponder how to combat with the current challenges and problems. In comparison to the past, modern people are doomed to face many more anxieties. They really worry to decipher the reasons and ways of resolving them so tactfully. This common pattern of life applies to all sphere people, and in Nepal it looks more pervasive in the sector of education.

The talk of education (both school and college) is not confined only to the circle of educationalists, professors, teachers, guardians and students these days. The talk is extended to the common public too. Even layman and split shopkeepers express their aggressions and raise questions about educational outputs in Nepal. This hot discussion widely in public hints the seriousness of the issue. People doubt over the quality of education. Is it practical? Has it produced skillful manpower for the socio-economic transformation of the society? Are the school and university graduates able to be self -employed? Have they developed creativity and innovation? These complaints and aggressive reactions are the objective realities of the land. At the same time, several researches have strongly backed up these genuine arguments. Let's have a glance at these two figures:

Figure : A (source: en.unesco.org, 2020 Global Education Monitoring Report)

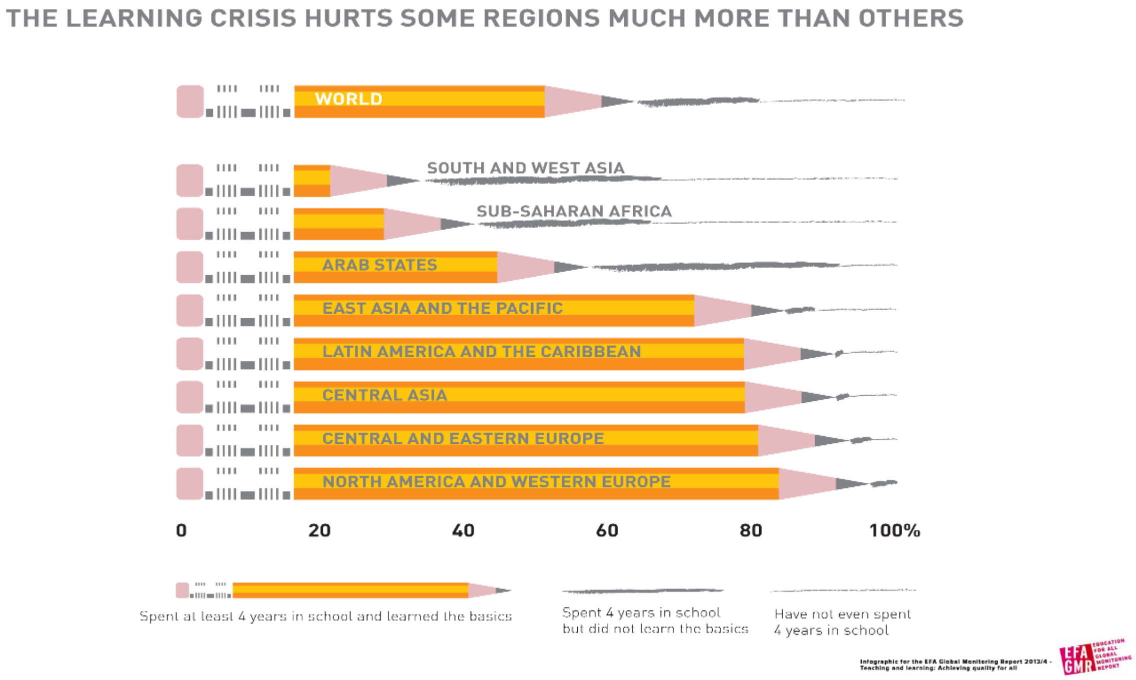

Figure B:

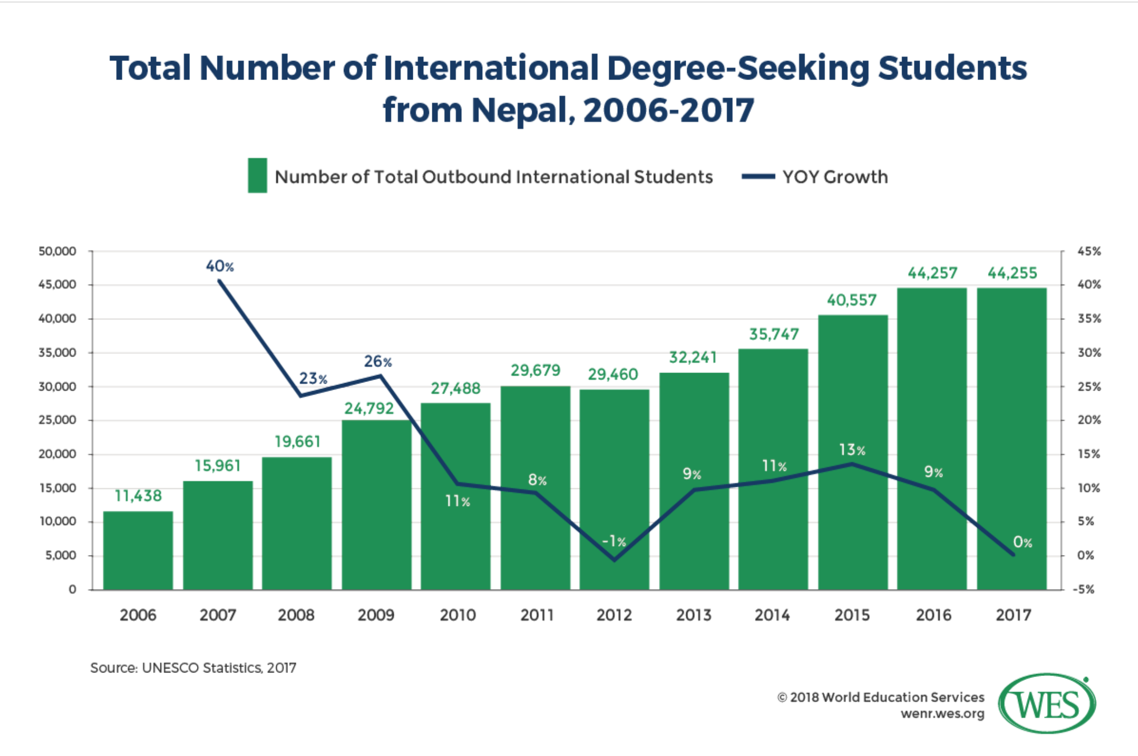

Figure A above reports the problem of the learning crisis in the world. It suggests how South Western Asia is severely hurt by the problem of lack of effective learning after Sub-Saharan Africa in the world. In other words, Nepal is closer to the condition of poor and underdeveloped countries of Africa. It is further justified by Figure B displaying the number of outbound mobility of Nepali students seeking higher education abroad. Very unfortunately, school education suffers from learning crisis like from current Corona pandemic, and domestic universities are not trusted by the youths at the same time. Thus, both the figures indicate the ground realities of meager condition of either school and university education in modern Nepal.

Similarly, according to the Flash Report of 2019, published by the Department of Education Nepal, though there is a significant increase in intake rates both in grade 10 and grade 12, students' survival rate has just slightly increased to 58.5%, and 22.2% in grade 10 and 12 respectively. Secondary level school completion rate increases just to 27.2% (MICS-2019. National Planning Commission). Similarly, Various reports show low overall graduation rate in tertiary education as another major problem in higher studies. Though the pass rate varies institution and stream wise, it is critically low in average as suggested by Tribhuvan University results, where the vast majority of students enroll every year. Now the question arises where these missing students are and what they are doing. What are the reasons for these occurring despite huge state investments?

Encounter

The reasons behind this concern of learning crisis, poor pass rates in higher studies and outbound mobility of higher studies students might include the widespread unemployment of the school and college pass-outs in the country, and the prospects of better education and employment opportunities abroad. It is claimed that more than Four million people still work abroad especially in gulf countries and almost Two million people work and study in European, American and other countries of the world. America, Australia, Canada, Britain, Japan, India and China are reported as the major destinations for the latter two million people (UIS,2017). These facts justify some problems in the academic sector of Nepal.

None of the agents and agencies is ready to take responsibility of the degradation for educational standards. Traditionally, they busy in charging one another. School level senior workforce raises questions about the performance of junior colleagues that they send students without achieving basic learning outcomes. Likewise, university workers blame school teachers for not equipping students with level wise competencies. Some people curse the policy makers and some others the politics and politicians. However, the problems revolve in a circle for over many decades.

General arguments go on to reveal the reasons of poor-quality education in Nepal. The so-called experts and educationalists argue that it is due to the lack of adequate funding for education in comparison to other sectors. Consequently, academic institutions lack suitable infrastructures like perfect classrooms, libraries and labs, and trained teachers who are capable for effective teaching. Neither education becomes inclusive, student-friendly, practical and output oriented.

In an attempt to seek research- based answer, A Journal of Management, Pravaha Journal-2018, also points out a few reasons behind the degradation of educational standards in Nepal. The journal intensifies traditional reasons and mentions, "The problems plaguing the educational system of Nepal are multidimensional like population explosion, lack of resources, non- participation of the private sector, scarcity of qualified man power, inconsistency in policies of various regimes, political instability, inefficient educational management system, wastage of resources, and poor implementation of policies and programs, etc. (pg.98)"

In contrast, this is a time to review this thinking paradigm, and it is the urgency to research in a new mode due to various factual reasons. Especially, after the intervention of School Sector Reform Project from 2009 to 2015(2066-2-72 BS) followed by the ongoing the School Sector Development Project in school education, drastic changes have occurred in literacy rate, enrollment rates and gender parity. Besides, most of school buildings were made of RCC. They have been further furnished well and equipped with a library and lab facilities. After the massive earthquake of 2072, more than 4000 school buildings have been reconstructed. Both SSRP and SSDP trained the teachers, and the index of trained teaching force reached 97.29% primary level and 88.70% in secondary level (UNESCO Institute for Statistics). In the same manner, in the case of university education, Higher Education Reform Project (HERP) 2015 geared up immense development for both physical infrastructures and human resources. According to University Grant Commission, 73 campuses including 60 community campuses with a high flow of students and 13 TU constituent campuses got tremendous support from the project and transformed themselves into infrastructures and other resources. Therefore, those traditional barriers to quality education have massively been broken. Moreover, the projects are still running for the reformation of school and university education. and most of the above barriers of infrastructures have been overcome. The educational scenario has been tremendously changed. Academic institutions are duly equipped with physical infrastructures and trained human resources.

On the other, the problem of quality education remains the same. The survival rate of enrolled students in school education is still considerably low. The pass percentage of school graduates ranges from 30-40% on average (Education in Figure 2017). Very few of the graduates develop entrepreneurship. Similarly, college graduates also remain unemployed and out of any business. Thus, the domestic academic institutions suffer a lot from the failure of producing capable human resources for the socio-economic transformation of the country. In addition, these institutions are losing credibility from the public and the productive youths are escaping the homeland.

In this context, the existing manpower of the education sector namely principals and teachers should be questioned for their failure roles to instrumentalize the available resources for better output. They are the first persons in the frontline to execute the designed curriculum and prepare manpower accordingly. Therefore, this study focuses on the factors behind this inefficiency of the educational workforce (principals and teachers). There may be several factors working behind. However, mainly it is not because of the lack of resources as discussed above, but because of the egocentrism fostering in this existing manpower.

Egocentrism

No one can deny the fact that the fate of an institution/ organization relies on its workforce. It is because their devotion and priority can easily accelerate the better output of the institution, at the same time, their sluggishness plays a great role to degrade the organization by no minute. This disparity between devotion and sluggishness depends on the driving impulses of the workers towards their works. Therefore, it is the matter of psychology, but not physiology and physicality, which influences more the performance of the workers in a stage of institutional development. Almost unanimously, scholars of psychology keep the notion that outward manifestations i.e. activities, character and behavior of the people are widely guided by inner thoughts and aptitudes. Educational leaders and teachers in schools and colleges of Nepal undergo a similar predicament. Owing to this notion, the problem of substandard education in Nepal emerges from the egocentric attitude and behavior of the academic workforce, mainly principals and teachers because they are overtly seen egocentric.

The word Egocentric is a psychological term. It is derived from egocentrism. Egocentrism means someone's inability to understand another person's view or opinion. This inability persists when the view is different from his/her own view. It represents a cognitive bias, which assumes that other people also share the same perspective as they do. At the same time, egocentric persons become unable to imagine that other people would have a perception of their own. Wikipedia also mentions egocentrism as the inability to differentiate between self and others. More specifically, it is the inability to untangle subjective schemas from objective reality or, inability to understand any perspective different from one's own. Moreover, the people who possess or collect this inability are egocentric. Cambridge International Dictionary of English defines egocentric persons as selfish persons who only think of themselves. And of course, despite the soaring quantity, the quality of education in Nepal is being degraded due to this egocentric workforce influential in academic institutions.

Many vice-chancellors of universities, principals, professors, and teachers seem egocentric. The understanding of egocentric attitude links to the term ego. Ego means the 'self', especially with a sense of self-importance. In simple words, ego gives the sense of 'who am I (thinking of own's self only)?' Everyone identifies himself/herself in relation to different entities like power, prestige, gender, etc. These can be understood as the sources of ego. In other words, the egocentric attitude of the people emerges from various sources like politics, power, property, permanency, periodical promotions, etc. in their academic institutions. Then the workers like to introduce themselves not with their profession but with the source of their ego. They develop a mindset that profession is just granted by the grace of the sources of ego not by their own working efficiency. They strongly believe that being loyal to the source makes them far stronger.

Therefore, they think of being responsible for the source, but not to the profession to be truly professional. They assume job is a basis and by nature, they can continue it without any interruptions. Further, they grow up a misconception that no one dares to question them. So, they can proceed selfishly.

For example, a teacher of a university or a school thinks that he/she is a permanent teacher. No one can challenge his/her placement; the ego of permanency. Then he/she starts running after politics and politicians, and dreams of being a parliament member or minister in future. This implies the ego of power and politics. Someone other from the same institution runs after tuition and coaching classes outside to earn more. He/she thinks of having more wealth for living a more fashionable and comfortable life. Besides, he/she starts comparing himself/herself with the others in matters of wealth, and decides why not buy a piece of more land in cities. This stands as the ego of property. A few other workers do not seem hardworking and responsible because they claim that they are the seniors, and they deserve periodical promotions. This refers to the ego of seniority. The ego of seniority begets superiority. Ultimately, one copies the another and egocentric attitudes pervade almost all the workforce because they involve in communicating by various platforms, means and media. The most detrimental agents, to foster egocentrism amidst the manpower of academic milieu, seen in Nepal are mushroom like trade union organizations established to support certain political parties, but very rarely advocative and protective to their professional adherents.

Effects

The pervasive nature of egocentrism among the workforce makes them impaired and more inefficient in their works. Despite compulsions, they gradually develop an indifference to their main task of effective planning, leading and teaching. Consequently, campus chiefs and headteachers take up their chairs without making any sound plans to execute for the betterment of their institutions. Compulsory provisions like making SIP (School Improvement Plan) and CIP (Campus Improvement Plan) are confined to documents only. The documents are designed for the sake of documents, and only to accept the grants disbursed by the government, and sometimes by nongovernment agencies too. Since the chair of the chiefs of academic institutions is not periodical, they attempt to reserve more power to sustain longer in the chair and impose power on the juniors. No one thinks that a limited period given to him/her should be utilized to present a role-model of academic development for the upcoming generation. It happens because of their sickness of being egocentric/selfish. Consequently, they focus on individual interest subordinating to public interest i.e. the interest of the institution.

The heads of the academic institutions of Nepal, either of a school or a college deviate themselves from their main roles being egocentric. Their vaulting ambition to sustain the chair throughout the whole service term compels them to link themselves to various sources of ego and become egocentric. In other words, they become selfish. They do not focus on the institutional development, rather they work to please the big bosses who created the source of the ego for them, or supported to have access to the sources of the ego. For them, institutional growth with regulatory norms like accountability, transparency, punctuality, self- appraisal, etc. comes under second priority. They focus on enjoying their sources of ego to gain personal interest and benefits.

Sometimes and in some senses, egocentric thinking is considered as a natural tendency. It is said to contribute to the development of academic institutions because the success of what is done in the school or college is attributed to the principal. Therefore, they strive to promote academic performances. They possess a pivot role around which many aspects of the institutions revolve. They are the in-charge of every academic or administrative activity. Indeed, the success of an academic institution lies in the leadership, and it is appraised against the performance of the leader. Unfortunately, when such leaders deviate the mode of their performance the standard of education obviously declines and happening the same in Nepal.

Not only the leader of academic institutions but also the rest, namely teachers, are also egocentric. Either they teach in a university or a school, the predicament looks the same because they show great craze to politics, power, permanency, and periodical promotions. Some of them boast of their seniority which ultimately transforms itself to superiority. Ludicrously, the teachers contest to show the talent of being egocentric. Being arrogant, they compete to accomplish their selfish wishes and desires, but not to invite and implement innovative ideas, methods and techniques to make students learn effectively. They remain backward in making teaching student-friendly. Neither they respect and follow the authority nor they leave mocking at innocent and hardworking fellow workers, nor they stop arguing nonsense and backbiting the leaders and administration. Rather they develop the hypocrisy of 'Mr. Know All'. Instead of preparing for effective classes like making plans, collecting materials, choosing the right methods, approaches and Techniques, developing objective and reliable test items, foster a better learning environment; these egocentric teachers view everything in relation to oneself only. Job is there, salary is there, then why to respect work ethics? The ego is fostered and fostered. This type of thinking leads them to the inability to sympathize with others or analyze and evaluate various perspectives. Then they fail to transform themselves to handle dynamic and curious students on the one hand, and develop teaching strategies pursuing the latest changes in pedagogical practices on the other. Sadly, most of these teachers are not willing or cannot see this character flaw within themselves.

In this sense, the teacher is more responsible for effective learning. It is generally argued that change starts with a great teacher. "A growing body of evidence suggests the learning crisis, is, at its core, a teaching crisis. For students to learn, they need good teachers…" (World Bank Report 2019). However, most of the teachers negate the concept of team work by sharing visions, capability and collaboration. They happen to disregard collective performances to enhance the educational standard. As a result, this increases the difficulty in overcoming educational barriers.

Teachers are the first agent to execute educational plans to bring targeted changes among the young learners, but their egocentric nature ultimately hampers the whole system of education and educational outputs. Therefore, "to support countries in reforming the teaching profession, the World Bank is launching 'Successful Teachers, Successful Students.' This global platform for teachers addresses the key challenges of making all teachers effective…"(World Bank Report 2019).

Exit

Quality of education always stands as an abstract and never resolving issue in the world because it lacks fix and unanimous parameters to be defined. It is a relative concept and always redefined with some contextual needs and notions. In this sense, the substandard of education in Nepal has been a matter of public discussion in later decades as it failed to contribute to the socio-economic transformation of the country increasing the widespread problem of unemployment, rush of foreign employment and brain-drain. There may be several reasons for this degradation. Never the less the main agents and agencies to handle it cannot escape from the burden of their responsibilities. Among these agents and agencies, leaders of academic institutions and teachers are primarily questioned. They are the first agents to implement the whole educational plans in the field. Their active working with full honesty in a job brings positive results otherwise the system fails to give better outputs. In this context, the study of available facts and figures refers to a great problem with principals and teachers of schools and colleges engulfing their performance. These academic forces are unnecessarily seen egocentric. They look indifferent to their main duty, run after different sources of ego, and foster their ego and egocentric attitudes. As a result, the standard of education in Nepal is being degraded these days. To repair the loss and make the condition better, the chiefs of different universities, professors, lecturers, headteachers and teachers of all schools in Nepal have to forsake the egocentric attitudes in practice. They have to be truly professional and march ahead with full buoyancy, honesty and professional ethics.

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Allocative and Technical efficiency of Health Financing System in Nepal

Uttam Paudel (Ph.D.)

Abstract

Health financing is well-thought-out as one of the major drivers of health system recital in terms of technical and allocative efficiencies, ensuring right things in right place. This research particularly aims to reconnoiter the current trend and relationship between the health financing indicators and limited health output predictors. Trend analysis and correlation coefficients are the basic tools to analyze the time series health data from 2008/09 to 2017/18, obtained from department of health services (DoHS) and other authentic sources. The results show that increasing government health expenditure and health budget in Nepal has been significantly yielding better health outputs since 2009. This result concludes that the annual growth of technical efficiency is more than 2.6% and allocative efficiency is also in the same equivalent trend. Ergo, it is recommended that Nepal government should increase the health expenditure with health budget to have better health system performance that encourage national health productivity through better economic efficiencies.

Keywords: Health financing, Efficiencies, Health outputs, Nepal

Introduction

Technical efficiency (TE) simply measures the ability of a decision making unit to produce the maximum feasible output from given inputs or produce a given level of output using the minimum feasible amounts of inputs (Li et al., 2014). Allocative efficiency (AE) measures the ability of a technically efficient to use inputs in proportions that minimize production costs given input prices (Farrell, 1957; Coelli et al., 2005). Allocative efficiency is calculated as the ratio of the minimum costs required to produce a given level of outputs and the actual costs for TE. Technical efficiency can be calculated by cost effectiveness if unit cost is known or by production efficiency if output is in natural unit.

A study (International-RTI, 2010) concludes that health financing is the major driver of high level of health system performance in terms of AE and TE. The same study has further suggested to focus on AE first through augmenting resources on preventive interventions rather than curative and based on the disease burden. Similarly, a recent study (Silwal and Ashton, 2017) published in 2017 taking the data from 2011/12 to 2013/14 using sophisticated data analysis tool for hospitals in Nepal claims annual 2.6% of growth of TE; taking health budget and bed available as inputs, and number of outpatient visits, in-patient discharged and emergency visits as outputs. Authors also found that the overall hospital output within the period found increasing annually by 25% in terms of aggregate efficiencies at given level of resources.

Scanty literatures are available in the measurement of allocative and technical efficiencies of Nepalese health system (Baral, 2014). Available studies are also before 2013 which are not enough to address the current health consequences. This study has not reached to the use of sophisticated tools to measure the numerical value of TE and AE. However, this study has explored efficiencies of the current government financial efforts on health to generate higher health outputs.

Methods and materials

With reference to the previous studies (Silwal and Ashton, 2017; Baral 2014), including some other potential input and output variables, an input-output matrix is formulated. The yearly change on limited input variables and output variables for last ten years is the base for the descriptive analysis of the efficiency changes in the recent years based on the correlation coefficient and the trend of changes so far the data availability.

The basic assumption in this particular truncated view of this case is: increasing the heath budget and other inputs leads to the significant improvement in the output variables, following the technique of Zealand (2010) and Castelli et al., (2015). The input variables are taken only from health budget as the proxy of health financing, namely, GDP per capita (A), government health expenditure as percentage of national budget (B), government health expenditure as percentage of GDP (C), government health expenditure per capita (D) and general government health expenditure (E). On the other side, output variables are nominated as crude death rate (F), birth rate (G), life expectancy (H), fertility rate (I), acute respiratory incidence under 5 children (J), % of population utilizing OPD services (K), inpatient recovered and discharged as % of total impatient (L) and emergency visits (M).

Results

The input-output variable matrix in Table 1 and Figure 1 show that health outcomes seem being further better as health inputs increase. All inputs are shown in monetary terms. All inputs are independent variables that determine the level of health outcomes (dependent variables). The correlation coefficients between the dependent and independent variables show the relationships in the input-output model in table 2.

Table 1: Input-output variable matrix

Year	Input variables					Output variables							
	GDP per Capita (A)	Gov. Health Exp (% Budget) (B)	Gov. Health Exp (% GDP) (C)	Gov. Health Exp.(Per Capita) (D)	Gov health Exp. (M.$) (E)	Crude Death rate (F)	Birth rate (Per 1000) (G)	Life expectancy (H)	Fertility rate (I)	ARI among U5 children (per 1000) (J)	% of Pop utilizing OPD services (K)	Inpatient recovered and discharged (% of total admitted) (L)	Emergency visits (M)
2017/18	901	5.5	1.9	9	268.1	6.24	19.49	70.6	2.08	612	76	92	2047323
2016/17	777	5.31	1.8	8	247.8	6.28	19.71	70.25	2.12	648	73	92	1765764
2015/16	747	5.15	1.5	8	221.5	6.33	19.97	69.89	2.16	765	66	91	1321916
2014/15	706	5.27	1.4	7	198.5	6.38	20.32	69.51	2.22	951	72	92	1263992

2013/14	689	4.88	1.4	6	167.7	6.44	20.77	69.13	2.29	918	79	91	1054326
2012/13	682	4.69	1.2	6	170.8	6.51	21.34	68.73	2.38	918	88	90	1015281
2011/12	696	4.87	1	6	172.7	6.58	22.03	68.33	2.49	880	76	88	995213
2010/11	592	4.8	0.9	5	144.3	6.67	22.83	68.33	2.61	824	70	87	921342
2009/10	481	4.68	0.91	4	116.8	6.77	23.71	67.91	2.74	882	76	83	900317
2008/09	474	5.28	0.81	4	101.8	6.88	24.64	67.04	2.87	765	69	81	835660

Data Source: DoHS Annual report 2008-2018; World Bank (published data), https://countryeconomy.com/nepal

Figure 1: Trends of Health inputs and outputs in Diagrams

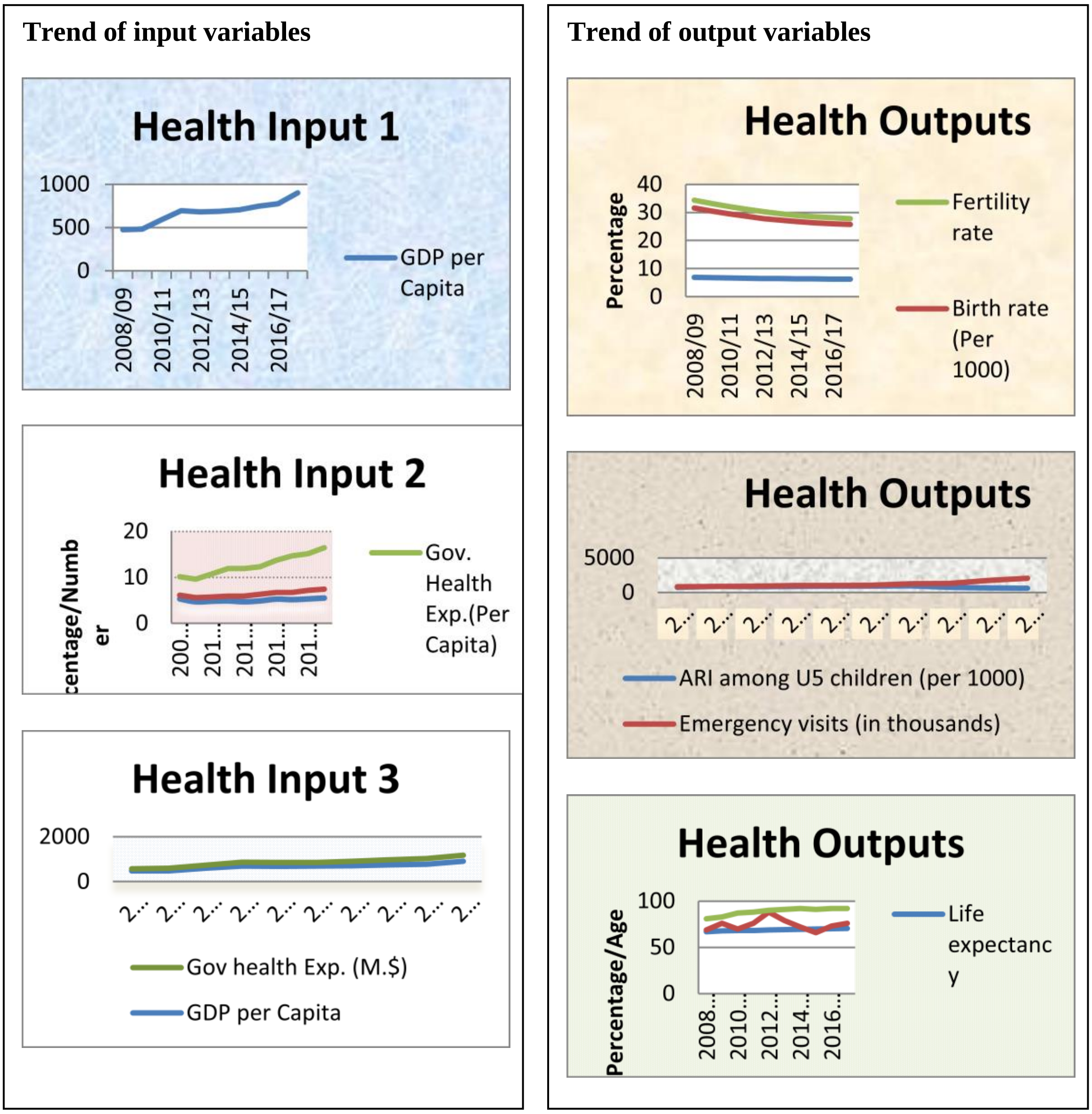

Table 2 demonstrates that increasing GDP per capita and government health expenditure have positive association with life expectancy and emergency visit at hospitals, but negative correlation with crude death rate, birth rate, fertility rate, ARI among the children at 1% level of significance. Similarly, increasing government health expenditure has also the same kind of relationship with output variables at different level of significance. The results suggest that there are expected relationships between the given variables.

Table 2: Correlation coefficient matrix among the input-output variables (as indicated in table 1)

	A	B	C	D	E	F	G	H	I	J	K	L	M
A	1												
B	0.52**	1											
C	0.90*	0.64**	1										
D	0.96*	0.63**	0.94*	1									
E	0.96*	0.61**	0.95*	0.99*	1								
F	-0.94*	-0.49	-0.94*	-0.96*	-0.96*	1							
G	-0.93*	-0.45	-0.92*	-0.95*	-0.94*	0.99*	1						
H	0.92*	0.53	-0.96*	0.96*	0.97*	-0.98*	-0.97*	1					
I	-0.93*	-0.47	-0.93*	-0.95*	-0.94*	0.99*	1*	-0.97*	1				
J	-0.45*	-0.69	-0.56	-0.53	-0.56*	0.36	0.30	-0.46	0.34	1			
K	0.12	-0.47*	0.36	-0.05	-0.02	-0.06	-0.09	-0.04	0.81	0.35	1		
L	0.90*	0.32	0.83*	0.87*	0.86*	-0.58*	-0.97*	0.90*	-0.96*	-0.13	0.18	1	
M	0.86**	0.73*	0.93	0.90*	0.93*	-0.83*	-0.79*	0.89*	-0.81*	-0.74*	-0.6	0.68**	1

*: Significant at 1% level, **: Significant at 5% level

This information infers that the annual growth in technical efficiency of current health system through the perspective the heath budget distribution is more than 2.6%, based on the strong relation between input and output variables. Similarly, based on the scenario of increasing the OPD visits percentage of total population, increasing the inpatient recovered and discharged from 83% to 92% of total admitted, access of emergency treatment, decreasing ARI among small children, decreasing death and birth rate in the whole country strongly prove that the right things are optimally functioning that are placing at right place. Additionally, the current health financing mechanism is successfully leading towards better technical efficiency and allocative efficiency, but the grand health system performance (overall productivity) depends on the overall success of health indicators. The numerical value of the current allocative efficiency and technical efficiency of current health financing system in Nepal is possible from thorough econometric analysis.

Discussions

This study designates that, overall, there was a marginal increase in outputs over the study period but financial inputs and overall productivity of the health facilities found fluctuated. The analysis apparently suggests that health outputs have been continuously augmented for the given level of resources along with additional input savings and output slacks. Efficiency measurement is one of the basic aspects of healthcare performance measurement as per the investment in health (Avkiran, 2006; Hussey et al., 2009). At the same time, efficiency measurement helps invigorate accountability of service provider in the use of public financial resources (Valdmanis, et al., 2008; Caves et al., 1982).

In this study, the financial resource on health sector is increased over the years by small numbers but the unadjusted output indicators are not smooth in increment but sometimes declined marginally. This finding matches with a previous study on efficiency of the district level hospitals in developing countries (Baral, 2014; Sherman & Zhu, 2006). However, a study in China revealed that a minimum of 7.83% growth was observed in all of the input and output variables of the study hospitals (Li et al., 2014). The study covering South Asian hospitals (Somananthan et al., 2008; Banker et al, 1984) used distinguished methodology from this study. However, the general inferences are similar with Nepalese public health facilities are performing better but still to be working at an optimal scale. This study suggests that public hospitals in Nepal could improve their efficiency through increasing investment for further better outputs.

Increasing investments have the potential to increase inputs so that they can produce more outputs with higher marginal benefit and ensure increasing returns-to-scale especially at higher level of health facilities (RTI, 2010). It is worth focusing on financing strategy with individual health facilities with efficiency measurement and patient’s load in the upper scales as short-term interventions should yield productivity gains (Smith et al., 2008). Through sustainable perspective, there would be required to improve the performance of the health facilities with lower efficiency ratings. For the health facilities having better output, it may be worth investing in technology as a means of improving productivity (Fare et al., 1994). And health facilities with lower possibility of output maximization in health system should have input minimization strategy for better allocative financing efficiency gain.

This study is also not free from limitations. None can confirm that the efficiency and productivity estimations are free from data errors because of non-parametric method. Similarly, this study could not check for the factors affecting efficiency of health facilities despite the fact that the performance measurement of overall health facilities vary significantly because of data unavailability. Future studies covering all these subjects may also be able to examine the effects of different policy and program changes on health system efficiency and productivity in Nepal.

Conclusion

This research concludes that current level of health financing inputs are successful to recognize the way of achieving the higher level of technical and allocative efficiencies to ensure the higher level of health outputs. Increasing the government health expenditure is directly associated with the higher level of health outputs. Therefore, Nepal government should invest on health to have higher level of health outputs, linking with national level of productivity gains.

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बालमनोविज्ञान, विजय मल्ल र कोही किन बरबाद होस् नाटक

अरुणविलास अधिकारी

विषय प्रवेश

मानिसका मनको प्रकृति, उसका विभिन्न अवस्था तथा त्यसमा पार्ने प्रभाव आदिको अध्ययन विश्लेषण गर्ने विज्ञान वा शास्त्र नै मनोविज्ञान हो भने बालबालिकाहरूको असामान्य क्रियाकलाप र उनीहरूको चाहना, प्रकृति, स्वभाव आदिको तथ्यपरक विश्लेषण नै बालमनोविज्ञान हो । हरेक बालबालिकाहरूका आ-आफ्नै बानी वा स्वभावहरू हुने गर्दछन् । सुखमा खुसी हुने, दुःखमा दुःखी हुने, शारीरिक, पारिवारिक, सामाजिक पीडामा पीडित भई पिरोलिने मानवीय संवेग पनि बालबालिकाहरूमा सानैदेखि विद्यमान हुन्छ । भविष्यको मूल आधार मानिएको बाल्यकालमा बालबालिकाहरूमा परिवार अनि समाजबाट प्रदान गरिएका वातावरणीय प्रभावहरू प्रत्यक्ष वा परोक्ष रुपमा आउनु अनि तिनले आफूभित्रको कलिलो बालमस्तिष्कमा पारेका सकारात्मक वा नकारात्मक प्रभावका कारण उनीहरूमा पनि मानसिक बेचैनी, कुण्ठा, छट्पटी, पीडा, आनन्दानुभूति आदि आउन सक्ने कुरालाई नकार्न सकिँदैन ।

हरेक वयस्क मानिसले आफ्नो बाल्यकाल बिताएर आएकै हुन्छ । जब आमाको कोखबाट बालक जन्मिन्छ तब उसले यस सांसारिक बन्धनबाट मुक्ति नपाउँदासम्म जीवनका उतारचढावसँग पौंठेजोरी खेल्नु नै पर्ने हुन्छ । मानसिक चेतनाको वृद्धि र विकाससँगै बालबालिकाहरूका चाहना र आवश्यकताहरू बढ्दै जान्छन् । उनीहरू आफू अरुभन्दा हेपिएर अनि तल गिरेर रहन चाहँदैनन् । आफूभित्रका बाल आकाङ्क्षाहरू सजिलै पूर्ति भएनन् भने रुने, कराउने, लडिबुडी खेल्ने, कपडा च्यात्ने, जेले पायो त्यसले र जसलाई पायो त्यसलाई हिर्काउने, एकान्तमा बस्ने, रिसाइरहने आदि गर्दछन् । त्यस्तो अवस्थामा उनीहरूको मनोभावना बुझ्ने कोसिस गर्नुपर्दछ । उनीहरू रिसाए भनेर आफू दोब्बर रिसाउने, उनीहरूले पिटे भनेर उल्टै झन् सारै पिटिदिने, कराए चिच्याए भनेर झन् सारै कराइदिने, उनीहरूको मागप्रति बेवास्ता गरिदिने, लडिबुडी खेले, कपडा च्याते, टाउको ठोके भने कुनै मतलब नगरिदिने गर्नुको सट्टा उनीहरूभित्र विद्रोही भावना आउनुको वास्तविक कारण खोज्नपट्टि लागी त्यसलाई सुरक्षित अवतरणको मार्ग प्रशस्त गर्नु नै सच्चा अर्थमा बालमनोविज्ञान बुझ्नु हो र यसले निकासको बाटो पहिल्याई बिग्रन लागेको बालकलाई सही गोरेटोमा हिँडाउने काम गर्दछ ।

बालबालिकाहरूलाई प्रेम गर्ने अनि उनीहरूको मानसिक विराटताप्रति भक्तिभाव देखाउने व्यक्तिलाई बालमनोवैज्ञानिक भनिन्छ । बालबालिकाभित्रको मनोभावना, चाहना, आवश्यकता,सोच, नकारात्मकता आदिलाई सर्लक्कै छामेर उनीहरूभित्र पलाएको कुभावना झिकेर फ्याँकी सच्चा र आदर्श बालबालिका बनाउँदै हुर्काउने परिपाटी बालमनोविज्ञहरूमा विद्यमान रहन्छ ।

विजय मल्ल

विजय मल्ल (वि सं १९८२-२०५६) आधुनिक नेपाली नाटकको विकासक्रममा अग्रणी नाटककारका रुपमा चिनिन्छन् । आफ्ना अधिकांश नाटकहरूमा समसामयिक विषयवस्तुहरूलाई समेटेर नाट्य अभिव्यक्ति दिन सफल उनी समस्यामूलक नाटकका जन्मदाता पनि मानिन्छन् । नेपाली नाट्य साहित्यको क्षेत्रमा नाटककार गोविन्दबहादुर मल्ल गोठालेद्वारा सूत्रपात गरिएको मनोविश्लेषणात्मक प्रवृत्तिलाई आत्मसात गरी त्यसैलाई निरन्तरता दिने काम विजय मल्लले गरेका छन् । उनका नाटकहरू मनोविश्लेषणात्मक, प्रतीकात्मक, समस्या र समाधानसँग सम्बन्धित छन् । कोही किन बरबाद होस्, जिउँदो लास, बहुला काजीको सपना आदि मनोविश्लेषणात्मक प्रवृत्तिले भरिएका नाटक हुन् भने कोही किन बरबाद होस् नाटकचाहिँ पूर्ण बालमनोविज्ञानमा आधारित नाट्यकृति हो । वि सं २०१६

सालमा प्रकाशित मल्लको कोही किन बरबाद होस् नाटकमा नाटककार मल्लले गोपालप्रसाद रिमालले सुरु गरेको यथार्थवादी नाट्य परम्पराभित्र मनोविश्लेषणलाई समावेश गरी आफ्नो छुट्टै पहिचान बनाउन सफल देखिन्छन् ।

कोही किन बरबाद होस् नाटक

कोही किन बरबाद होस् नाटक वि सं २०१३ देखि लेखन कार्य सुरु गरी वि सं २०१६ सालमा प्रकाशनमा ल्याइएको नाट्यकृति हो । संरचनात्मक हिसाबले पहिलो, दोस्रो र तेस्रो गरी जम्मा तीन अङ्कमा समेटेर एकाङ्की स्वरुपमा लेखिएको पूर्णाङ्की नाटक यसमा जम्मा ४४ पृष्ठको छोटो संरचना तयार पारिएको छ ।य समा पहिलो अङ्क पृष्ठ १ देखि १७ सम्म, दोस्रो अङ्क पृष्ठ १८ देखि ३१ सम्म अनि तेस्रो अङ्क पृष्ठ ३२ देखि ४४ सम्म समेटिएको पाइन्छ । दृश्यविहीन प्रस्तुत नाटकमा एउटा अङ्ग्रेजी अवासीय स्कुल, त्यसमा कार्यरत शिक्षक/शिक्षिका र विद्यार्थीसँग सम्बन्धित भएर अगाडि बढेको छ । सिङ्गो नाटकमा बालसमस्यालाई उजागर गरी त्यसको निराकरण गर्ने प्रयाससमेत गरिएको हुँदा यो नाटक बालमनोवैज्ञानिक नाट्यकृति हो ।

कोही किन बरबाद होस् मनोवैज्ञानिक नाटक हो । बालमनोविज्ञानलाई मूल आधार बनाई लेखिएको यसमा शिक्षण प्रविधिको विकासमा जोड दिनुपर्ने कुरालाई उच्चताका साथ प्रस्तुत गरिएको छ । सानैमा आमा पोइल गएकी र बाबु जीवनाथले आमालाई कहीँ कतैबाट भेट्न नदिने सर्तमा एउटा आवासीय विद्यालयमा आफ्नो बालक छोरो ध्रुवलाई भर्ना गरेका हुन्छन् । आमाविहीन बालक ध्रुवले विद्यालयको आवासमा सबै साथीहरूका आमाहरू भेट्न आउने अनि खानेकुरा, कपडा आदि ल्याइदिने गरेका तर आफ्नी आमा कहिल्यै पनि नआउनाको कारण विक्षिप्त भई उपद्रो गर्दै गरेको र त्यसको समाधान विद्यालयबाटै मनोवैज्ञानिक ढङ्गबाट गरिएको नाटकमा देखाइएको छ । विद्यालयको आवासमा रहेको बालक ध्रुवमा मातृविहीन हुनाको कारण अनेकौं विद्रोही भावना जन्मिएको छ । उसले साथीहरूलाई ढुङ्गाले हान्ने, कपडा च्यातिदिने, बगैँचामा गई फूलका बिरुवा उखेलेर फ्याँक्ने, विद्यालयको पर्खाल भत्काइदिने, किताबकापी च्यातिदिने मात्र नभई एकैदिन गाउँलेहरूका पाँच पाँचवटा कुखुराका चल्ला मारिदिने आदिजस्ता विद्रोही कियाकलाप देखाएको छ । उसका कियाकलापबाट म्याट्रन कमलादेवी, साथीहरू, शिक्षकशिक्षिकाहरू अवाक भइसकेका छन् । रत्तीभर नपढेको, अरु साथीहरूको बानीसमेत बिगार्न खोजेको र कसैले भनेको नटेरेको देखेपछि विद्यालयकी आदर्श म्याट्रन कमलादेवी प्रिन्सिपल सुन्दरलाल समक्ष भन्छिन् **हाम्रो स्कुल के बदमासहरू पाल्ने खोर हो त त्यसो भए ? मलाई त निको लागेन है, त्यस्तालाई हटाइदिए हाम्रो के नोक्सान हुन्छ ? (पृ ४)**

सुन्दरलाल त्यस विद्यालयका आदर्श प्रिन्सिपल हुन् । कुनै पनि बालबालिका जन्मदा स्वच्छ मस्तिष्क लिएर जन्मने तर वातावरणको प्रभावबाट उनीहरूको मानसपटलमा रिस, डाह, घृणा, कुण्ठा, बेचैनी, माया, सद्भाव, वितृष्णा आदि पैदा हुने र त्यसलाई सही बाटोमा ल्याउन त्यसको कारण पत्ता लगाउन सक्नुपर्ने मान्यता उनमा देखिन्छ । आवासमा सिङ्गो म्याट्रनको जिम्मेवारी बहन गरेकी कमलादेवी बालक ध्रुवको व्यवहारबाट आजित हुन्छिन् । उनी प्रिन्सिपल सुन्दरलाल समक्ष **मास्टरसाहेव ! ध्रुवलाई उसको घर पठाउने बन्दोबस्त मिलाउनुहोस् है । यहाँ त सप्रँदैन, न हामी नै सपार्न सक्दछौं । म त कायल भैसकेँ । एक न एक बदमासी नगरेको दिन नै छैन । के पढेर खाला यस्ताले !**(पृ ४) भनी दिक्दारी व्यक्त गर्दा सुन्दरलाल **एक किसिमले तपाईंले भनेको कुरा ठीक हो । तर हेर्नोस् कमलादेवी** ! **यस्तो एउटालाई सपार्न नसक्नु हाम्रो हार हैन** ? **(पृ ५)** भन्दै सम्झाउनु अनि **केटाकेटीहरू कुनै कारण नभई त्यसै बदमासी गरिरहलान् त ?........मलाई लाग्छ उल्ले त्यसै बदमासी गरिरहेको छैन । त्यसको केही कारण छ,कैही अर्थ छ, हामीले त्यो अर्थ नबुझ्नु बेग्लै कुरा हो ।**(पृ ६) यसबाट सुन्दरलालमा बालमनोविज्ञानको पूर्ण ज्ञान भएको अनुभूति गर्न सकिन्छ । बालकले पटकपटक बदमासी दोहोऱ्याउनु, ठूलाबडालाई झिँज्याइरहनु, पर्खाल भत्काउनु, फूलका बिरुवा उखेल्नु, साथीसँगीलाई पिट्नु, नपढ्नु, खाने सुत्ने कुरामा समेत विद्रोही व्यवहार देखाउनु अनि ठूलाबडाले पिट्दा, गाली गर्दा, हप्काउँदा पनि आफ्नो कुरा नछाड्नु भनेको ऊ भित्रका मानसिक चाहनाले

निकास नपाउनुको परिणति हो । यहाँ ध्रुवको विद्रोही व्यवहारको कारण राम्ररी बुझ्न सकेका सुन्दरलाल कमलादेवीसमक्ष यस्तो अभिव्यक्ति पोख्छन् **म यो बालमनोविज्ञान पढ्दै थिएँ । कुनै अतृप्ति, असन्तुष्टि या भनौं यस्तै मनस्थिति नभईकन कुनै पनि ठिटाहरू यसरी लगातार तिनै कुराहरू गरिरहँदैनन्, जसबाट ठूलाबडाहरू रिसाउँछन् । यस्ता प्रकारका विद्रोह केही कारणवश निस्कन्छन् । हामी उनको बदमासीको भाषा बुझ्दैनौँ, अर्थ लगाउन सक्दैनौँ ! खालि दण्ड दिएर सपार्ने चेष्टा गर्दछौँ । यो हाम्रो भूल कि उसको ? केटाकेटीले नजानीकन बोलेको बेचैनी र असन्तुष्टिको भाषा नै त्यही बदमासी हो । त्यो बुझ्दैनौँ, हामी बुझ्ने चेष्टासम्म गर्दैनौँ । एउटा होनहार जिन्दगी त्यसै बरबाद हुन्छ, तैपनि हामी मास्टर या गुरु भनाएर बसिरहन्छौँ ।** (पृ ७) यसै क्रममा उनी **........फेरि यसरी बदमासी गरिरहनु यो विचित्र हो । मानसिक स्थितिमा विकृति नआई केटाकेटीमा यस्तो दूषित वातावरणको विकास हुँदैन ।** भन्न पुग्दछन् ।

बालमनोविज्ञान साँच्चैं बालबालिकाका लागि अत्यावश्यक कुरा हो । सुन्दरलालले बालक ध्रुवलाई भेटी ऊभित्र पलाएको विद्रोहको वास्तविकता पहिल्याएर समाधानतिर उन्मुख गराउने प्रयासमा लाग्नु साँच्चैं बालमनोविज्ञानको ज्ञान हुनुको परिणति नै हो । बालबालिकाहरूमा नकारात्मकता वा विद्रोही भावना पलायो भने पनि त्यसलाई सकारात्मक उपचार गर्ने सोचाइ सुन्दरलालमा भेटिन्छ । एउटा साधारण बालक त्यतिकै विद्रोही बनेर देखिँदैन भन्ने मनोविज्ञान बुझेका उनले **आमाको स्नेह, बाबुको प्यार नपाईकन केटाकेटी संसारमा हुर्कन त हुर्कन्छन् तर यस्तो असन्तुष्टि र अतृप्तिले मानसिक विकार उत्पन्न गर्दो रहेछ, जसले गर्दाखेरि बाहिरबाट मानिसजस्तो देखिए तापनि भित्रबाट उनीहरू रित्तो, खोक्रो, कुरसम्म पनि हुन बेर मान्दैनन् ।**(पृ ९) भन्न पुग्दछन् । अन्त्यमा बालक ध्रुवले जे चाहेको हो सो कुरा पूरा गरिदिने सकारात्मक आश्वासन पश्चात् उसले सबैका आमा आवासमा भेट्न आउने तर आफ्नी आमा कहिल्यै भेट्न नआउने विकृत मानसिकताबाट उसमा गडबडी पैदा भएको वास्तविकता छर्लङ्ग हुन पुग्दछ । तीन वर्षे कलिलो उमेरमा छाडेर जानुको कारण आमा पनि नचिनेको अनि मातृस्नेह पनि नपाएको ध्रुवमा यही अभाव नै अतृप्त भई विद्रोहमा परिणत भएको छ । परिणामस्वरुप उक्त विद्रोहलाई विभिन्न वितण्डाका माध्यमबाट प्रस्फुटन गरी उसले प्रिन्सिपललाई समाधान निकाल्न बाध्य पारेको छ ।

ध्रुवलाई विद्यालयको आवासमा आमाद्वारा सेवा गराइएको भन्ने भ्रामक कुरा सुनिसकेपछि कुरै नबुझी आमालाई भेट गराएको आरोपमा जीवनाथ प्रिन्सिपलसँग जङ्गिन पुग्दछन् । यस्तो अवस्थामा विकृत मानसिकता बोकेका जीवनाथसँग सुन्दरलाल भन्छन् **हेर्नोस्, हामी जतिसुकै भनौं हामी लोग्ने मानिसहरू, याने बाबुहरू छोराछोरीहरू हुर्काउनलाई त्यतिको सफल हुँदैनौं जत्तिका आमाहरू । प्रकृतिले त्यसमा हामीलाई ठगेको छ । छोराछोरीहरूलाई आमाको प्यार चाहिन्छ । बुझ्नुभो, आमाको स्नेह, ममता, निःस्वार्थ सेवा भएन भने छोराछोरीको मानसिक अवस्था गडबडिन जाँदो रहेछ । ध्रुवको त्यही हालत थियो ।** (पृ २९) यसै सिलसिलामा सुन्दरलाल पुनः भन्दछन् **कमलादेवीले आमा हुन स्वीकार गरिदिएर तपाईंको छोरो ध्रुव त्यस गडबडीबाट बच्यो । उसले आमाको स्नेह पायो । अचेल उसको चेहरा हेर्नोस् तपाईं, के पहिलेजस्तो छ** ? यसबाट बालबालिकाको भविष्य निर्माणमा विद्यालय पूर्ण जिम्मेवार हुन्छ र शिक्षक शिक्षिकाहरू यसका महत्त्वपूर्ण कारक हुन् भन्ने कुरा पनि स्पष्ट हुन्छ ।

ध्रुवमा देखिएको विद्रोही भावनाको जड नै उसकी आमा छात्रावासमा भेट्न नआएकीले हो भन्ने कुरा बुझेका सुन्दरलालले म्याट्रन कमलादेवीलाई आमा बन्न लगाएर भए पनि उसको विद्रोही मानसिकतामा सकारात्मक परिवर्तन ल्याउन सफल भएका छन् । यसमा कमलादेवीले पनि पूर्ण साथ दिएकी छिन् । उनले पनि एउटा बिग्रन लागेको बालकको भविष्य आफू आमा बनी सपार्दै गरेको अवस्थामा अन्यत्रबाट विवाहको प्रस्ताव आउँदा पनि त्यसलाई अस्वीकार गर्दै विद्यालयले दिएको आफ्नो जिम्मेवारी पूरा गरी बरबाद हुन लागेको बालक ध्रुवको जीवनलाई पुनर्जीवन दिन सफल भएकी छिन् । जसको कारण ध्रुवमा सुधार आई एक असल र आदर्श विद्यार्थी बनेर विद्यालयकै आवासमा बसेर प्रवेशिकासम्मको पढाइ पूरा गरेको छ । पढाइ पूरा गरी आवास छाड्ने बेलामा समेत

हुर्किसकेको ध्रुवलाई सोहीअनुसारको मनोवैज्ञानिक उपचार गरी यथार्थ कुरा भनिदिएर सकारात्मक सोचका साथ विद्यालयबाट बाहि-याउने काम भएको छ ।

निष्कर्ष

बालमनोविज्ञान बाल जगत्को मूल कारक हो । यसले बालबालिकाहरूको मानसपटलमा आएको सकारात्मक वा नकारात्मक भावनालाई बुझेर सकारात्मक सोच अनि व्यवहारको विकास गराउने काम गर्दछ । बालमनोविज्ञानमा केन्द्रित प्रस्तुत कोही किन बरबाद होस् नाटक मनोरोगी ध्रुवलाई कसरी सही बाटोमा ल्याउने भन्ने कुरामा केन्द्रित रहेको छ । ध्रुव त नेपाली समाजका मनोरोगी बालबालिकाहरूको प्रतिनिधि पात्र हो । मातृस्नेहविहीन बालबालिकाहरूमा देखिएको मनोरोग निको पार्न मनोचिकित्सक सुन्दरलालजस्ता व्यक्तिहरू लाग्नुपर्ने यथार्थता नाटकमा प्रतिध्वनित भएको छ । आवासीय विद्यालयको आवासमा रहेका बालबालिकाहरूमा अरुका जसरी आफ्ना बाबुआमा पनि आफूलाई भेट्न आइरहून्, खानेकुरा, पैसा, लत्ताकपडा आदि ल्याइदिइरहून्, आफूहरूमाथि माया खन्याइरहून् भन्ने अदर्श मान्यता रहिरहन्छ । यदि यसमा कमी आयो भने त्यस्ता अभिभावकका बालबालिकाहरूमा विद्रोहको भावना उब्जिन थाल्छ ।

बालबालिका सबैको स्वभाव एउटै हुँदैन । विद्यालयमा पढेका विद्यार्थीहरू सबै एकै किसिमका हुँदैनन् । बालकले कक्षाकार्य गरेन, गृहकार्य गरेन, पाठ बुझाएन, विद्यालय आउनै आलटाल गऱ्यो, कापी किताब ल्याएन, पढाइमा ध्यान दिएन, बढ्ता रिसायो, शिक्षकहरूसँग मुखमुखै लाग्यो भने त्यसको निराकरणमा उसलाई हप्काउने, पिट्ने, गाली गर्ने, कुखुरा बनाउने, अभिभावक बोलाएर उनीहरूकै अगाडि बेइज्जत गर्ने, कक्षाबाट निकालिदिने, स्कुलबाटै निस्कासन गर्ने आदिजस्ता क्रियाकलाप गर्नु पटक्कै राम्रो होइन । यस्तो बेलामा ऊ पढेको विद्यालय अनि त्यहाँका शिक्षक शिक्षिका नै पूर्ण रुपमा जिम्मेवार भई बालकले देखाएका कमी कमजोरीको निरुपण गरी त्यसको बालमनोवैज्ञानिक उपचार गर्नु आवश्यक मानिन्छ । घरको वातावरण बिग्रिएमा, बाबुआमा झगडा गरेमा, समयमा कापीकिताब नकिनिदिएमा, खराबसँगको सङ्गतमा लागेमा, बाबुआमा वा अभिभावकको ममता कम पाएमा,शिक्षकले पढाएको नबुझेमा, साथी-सँगी वा आफूभन्दा ठूलाले घृणा, डर, धम्की आदि देखाएमा वा यस्तै यस्तै नकारात्मकताको प्रभाव बालकमा सिधै पर्न गएमा ऊभित्र पढाइप्रति वितृष्णा पैदा हुन्छ । ऊ विद्रोही बन्दै जान सक्छ । आफूलाई चित्त नबुझेका कुरा व्यक्त गर्न पनि सक्दैन र सम्बन्धित पक्षले बुझिदेओस् भन्ने चाहना पनि राख्दछ । प्रस्तुत नाटकको ध्रुवमा पनि यही भएको हो । सानैबाट आमा नचिनेको ऊ जब ठूलो हुँदै गयो त्यसपछि बाबुले आवासीय विद्यालयको आवासमा राखी पढ्ने वातावरण मिलाइदिए तब उसले त्यहाँ सबै साथीहरूका आमाहरू हप्तैपिच्छे आफ्ना सन्ततिहरूलाई भेट्न आएका अनि माया खन्याएका देखिसकेपछि उसमा बल्ल आमाको आवश्यकता अनुभूत भयो । यो कुरालाई सिधै प्रकट गर्न नसकेको उसले आफूभित्र विद्रोही भावना जन्माएर मनोरोगी बन्दै साथीहरूलाई ढुङ्गाले हान्ने, उनीहरूका कपडा च्यातिदिने, किताब कापी फाल्ने, च्यात्ने, नपढ्ने, शिक्षक शिक्षिकाले भनेको नमान्ने, आवासमा राम्ररी खाना नखाइदिने, सुत्दा ओढ्ने फालेर हैरान पारिदिने, गाउँलेहरूका पाँच पाँचवटा कुखुराका चल्ला मारिदिने,पर्खालका ईट्टा उक्काइदिने, फूलका बिरुवा उखेलिदिने, आदि आदिजस्ता क्रियाकलापमा सरिक भयो । एउटा मनोरोगीको उपचार मनोवैज्ञानिक पध्दतिबाट मात्र सम्भव हुन्छ भन्ने बालमनोविज्ञानका ज्ञाता, जिम्मेवार अनि आदर्श प्रिन्सिपल सुन्दरलालले स्कुलकी म्याटन कमलादेवीलाई आमाको भूमिका निर्वाह गर्न भनेपछि र कमलादेवीले सोहीअनुसार आमा भएको अभिनय गरेपछि ध्रुवको मातृस्नेहको रोग क्रमशः निको हुँदै जान्छ र अन्त्यमा ऊ सुमार्गमा आउँछ । बालक ध्रुवलाई सपार्न सुन्दरलालले मनोचिकित्सकका रुपमा खेलेको भूमिका र कमलादेवीले उपचारका क्रममा औषधिको काम गरेको यथार्थताले नाटकभित्रको बालमनोवैज्ञानिक पक्ष उच्चतामा पुगेको प्रमाणित हुन्छ ।

यसरी बालबालिकाहरूको मानसिक अध्ययन नै उनीहरूभित्रको अतृप्तिको सबैभन्दा ठूलो निराकरणको उपाय हो । मानसिक अध्ययन नगरी बालबालिकाहरूलाई भौतिक कारबाहीमा सम्मिलित गराउँदै जाने हो भने

उनीहरू मानवीयभन्दा दानवीय प्रवृत्तितर्फ उन्मुख हुँदै जानुको परिणामस्वरुप विभिन्न दुर्घटनाहरू घट्न सक्ने हुन्छन् । त्यसकारण बालमनोवैज्ञानिक उपचारमा जोड दिई प्रत्येक बालबालिकाहरूलाई असल मार्गमा हिँडाउनुपर्ने केन्द्रीय कथ्यमा परिलक्षित प्रस्तुत नाटक नाटककार विजय मल्लको प्रसिद्ध बालमनोविश्लेषणात्मक नाट्यकृति सावित भएको छ ।

सन्दर्भ सूची

नेपाली बृहत् शब्दकोश (२०४०), काठमाडौँः नेपाल राजकीय प्रज्ञा प्रतिष्ठान ।

न्यौपाने, श्रीराम (२०५८), नेपाली काव्य, नाटक र इतिहास, काठमाडौँः पैरवी प्रकाशन ।

मल्ल, विजय (२०६३), कोही किन बरबाद होस्, ललितपुरः साझा प्रकाशन ।

लामिछाने, यादवप्रकाश र गीता लामिछाने (२०६८), नेपाली काव्य, नाटक-एकाङ्की र नेपाली साहित्यको इतिहास, काठमाडौँः विद्यार्थी पुस्तक भण्डार ।

शर्मा, डा केदारप्रसाद, सालिकराम पौडेल, प्रेमप्रसाद तिवारी, जगदीश गैरे, विनोद खनाल र सुमन्तराज न्यौपाने (२०६४), नेपाली कविता, नाटक र साहित्यको इतिहास, काठमाडौँः विद्यार्थी पुस्तक भण्डार ।

शर्मा, मोहनराज (२०५९), शैली विज्ञान, काठमाडौँः नेपाल राजकीय प्रज्ञा प्रतिष्ठान ।

सप्तप्रवाह (२०६९), चितवनः सिध्दबाबा अफसेट प्रेस ।

(लेखक शहीद स्मारक कलेज, शारदाजगर, चितवनमा नेपाली भाषा शिक्षण विषयका सह प्राध्यापक हुन् ।)

तस्वीर तिम्रैमा अलङ्कार

धनपति कोइराला (पिएच. डी)

लेखसार

अलङ्कार पूर्वीय समालोचना सिद्धान्तमध्ये शैलीपक्षसँग जोडिएको एक महत्वपूर्ण सिद्धान्त हो । यसमा अर्थालङ्कारका मानक सिद्धान्तलाई अनुसरण गरी नेपाली साहित्यगगनका एक जीवन्त हस्ताक्षर निर्मोही व्यासद्वारा रचित "तस्वीर तिम्रै" (२०७५) मुक्तक सङ्ग्रहको अध्ययन तथा विश्लेषण गर्ने उद्देश्य राखिएको छ । गुणात्मक विधि अवलम्बन गरिएकाले यसमा पुस्तकीय विधि अनुरूप सामग्री सङ्कलन गरिएको छ । प्राप्त सामग्रीहरूको वर्णनात्मक तथा विश्लेषणात्मक विधिअनुरूप वर्णन तथा विश्लेषण गरिएको छ । शब्दालङ्कारको चर्चा नगरी अर्थाङ्लकार स्पष्ट छुट्टिएका र मुख्य लागेका उपमा, रूपक, उत्प्रेक्षा, उत्तर, कार्यकारण, कारणकार्य, सार, विनोक्ति, स्वभावोक्ति, सन्देह, वक्रोक्ति, विकल्प, संकर, श्लेष, व्याजनिन्दा, अपह्नुति, प्रेय, सहोक्ति, भावसन्धि, स्मरण, दृष्टान्त, भावसन्धि, कारणमाला, लोकोक्ति, भावोदय, अन्योन्य, भाविक र काव्यलिङ्ग अलङ्कारको प्रयोग गरिएको छ । यसमा उपेन्द्रवज्रा लयमा सृजित यी अलङ्कार कृत्रिम नभई विशुद्ध प्राकृत रहेका छन् । यी अलङ्कारले मुक्तकको सौन्दर्य सृजना गर्नुका साथै सशक्त रूपमा व्यङ्ग्यार्थ प्रधान कृतिको दर्जा दिलाएका छन् । यसर्थ अलङ्कार प्रयोगका दृष्टिले प्रस्तुत कृति उच्च कोटिको सुन्दर सिर्जना बनेको छ ।

विशेष शब्दावली : *अर्थालङ्कार, प्राणतत्त्व, भावोत्कर्ष, मुक्तक र व्यङ्ग्यार्थ*

विषय प्रवेश

शब्दको आधारमा गरिने वक्रिम अभिव्यक्तिलाई अलङ्कार भनिन्छ (भामह, सन् २००२: ४९) । भामहले अलङ्कारलाई काव्यको प्राणतत्वका रूपमा हेर्दै यसको अभावमा काव्यमा काव्यत्व नै जीवित नरहने बताएका छन् । आचार्य मम्मटका विचारमा अलङ्कार हारादिजस्तै काव्यका शोभाकारक तत्व हुन् (मम्मट, सन् २००८: ३२३) । आचार्य विश्वनाथ अलङ्कारलाई काव्यको सहायक तत्व मात्र मान्दछन् । उनका विचारमा गरगहना, औंठी, हार आदि आभूषणले मानिसको शरीरका शिर, कण्ठ आदि अङ्गलाई सौन्दर्यवर्द्धक तुल्याएझैं अलङ्कारले काव्यको सौन्दर्य बढाउने अस्थिर धर्मको कार्य गर्दछ (विश्वनाथ, सन् २००८ : २१) । प्रायः ध्वनिवादी, रसवादी तथा गुणवादी आचार्यहरू अलङ्कारलाई सहायक तत्वका रूपमा मात्र हेर्दछन् । अलङ्कारवादी आचार्यहरूका दृष्टिमा भने अलङ्कार नै काव्यको आन्तरिक तत्व हो भन्ने स्वर निकै उच्च रहेको तथ्यलाई नकार्न सकिन्न । किन पनि भने षोडश शृङ्गारमा सजिएकी सुन्दरी युवतीमा जस्तो सौन्दर्य झल्कन्छ काव्यमा पनि तेस्तै सौन्दर्य र आभा अलङ्कारले प्रदान गर्दछ । पाश्चात्य साहित्यशास्त्रमा पनि यसलाई प्रतीक र विम्बका रूपमा हेरिएको छ (पोखरेल, २०५९: ५९(६१) । उल्लिखित आचार्यहरूका कथनलाई दृष्टिगत गर्दा अलङ्कार काव्यको एउटा शोभाकारक तत्व भएको र यसले काव्यमा उचाइ र मार्मिकता थप्ने तथ्य स्पष्ट छ । शब्दालङ्कार र अर्थालङ्कार यसका दुई प्रकार छन् । शब्द प्रयोगमा सौन्दर्य र चमत्कार भयो भने शब्दालङ्कार हुन्छ (थापा, २०४७ : २६२) । यसले कृतिमा चमत्कृति प्रदान गर्दछ र कृति मार्मिक एवम् आस्वाद्य पनि बन्दछ । गरगहना र लाली पाउडरले नारीमा अपूर्व सौन्दर्य पैदा गरेझैं शब्दालङ्कारले पनि कृतिमा अपूर्व सौन्दर्य पैदा गर्दछ । शब्दको अर्थमा मात्र सौन्दर्य र चमत्कार सिर्जना हुँदा अर्थालङ्कार हुन्छ (थापा, २०५० : २६३) । यसले कृतिको प्राणतत्वका रूपमा रहेका रसको प्रतीतिमा उल्लेख्य भूमिका खेल्दछ ।

निर्मोही व्यासद्वारा रचित तस्वीर तिम्रै' २०७५ सालमा प्रकाशित मुक्तक सङ्ग्रह हो । यसमा २०७५ साल आश्विन ३० देखि सोही वर्षको माघ १४ सम्म रचिएका २५० मुक्तक सङ्कलित छन् । हरेक मुक्तकको मुनि कुनै दिन एउटामात्र र कुनै दिन एउटा हातका औँला बराबरको सङ्ख्यासम्मका मुक्तकहरू सिर्जिएको सङ्केत गरिएको छ । प्रायः मुक्तकहरू "व्यङ्ग्यार्थप्रधान नै हुन्छन् भन्ने तथ्यलाई यस कृतिले वस्तुतः अङ्गीकार गरेको छ । त्यसो त विषय र भावको विविधता यसको वैशिष्ट्य हो तथापि अलङ्कार प्रयोगका दृष्टिले पनि प्रस्तुत कृति समीक्षणीय देखिएकाले उपमा, रूपक, उत्प्रेक्षा, दृष्टान्त, स्वभावोक्ति, अतिशयोक्ति, सन्देह, व्याजनिन्दा, लोकोक्ति, भावसन्धि उत्तर आदि यसअन्तर्गत पर्दछन् । अर्थालङ्कारका धेरै प्रकारहरू भए पनि मुक्तक सङ्ग्रहमा प्रयुक्त अलङ्कारहरूको मात्र अध्ययन प्रस्तुत गरिएको छ । सरसर्ती यहाँ प्रयुक्त केही अर्थालङ्कारको अवलोकन गर्ने प्रयत्न गरिएको छ ।

उद्देश्य

अर्थालङ्कारका सैद्धान्तिक आलोकमा तस्वीर तिम्रै (२०७५) मुक्तक सङ्ग्रहको अध्ययन एवम् विश्लेषण गर्नु ।

पूर्वकार्यको समीक्षा

त्रिपाठी (२०३४) द्वारा *लेखनाथ पौड्यालको कवित्वको विश्लेषण तथा मूल्याङ्कन* शीर्षकमा शोधकार्य गरिएको छ । यसमा लेखनाथ पौड्यालको कवित्वको विश्लेषण र मूल्याङ्कन गर्ने क्रममा अलङ्कारको पनि चर्चा गरिएको छ । यसमा अनुसन्धाताले उन्नाईसौँ विश्रामको अठारौँ श्लोकमा श्लेष अलङ्कार रहेको उल्लेख गरेका छन् । अलङ्कारले लेखनाथको वर्णन विचार वा अनुभूतिलाई कहीँ पनि कृत्रिम र क्लीष्ट नपारी बरु उद्दीप्त नै पार्नु तरुण तपसीको अलङ्कार प्रयोगको वैशिष्ट्य रहेको निष्कर्ष निकालिएको छ । खनाल (२०५९) द्वारा *ऋतुविचारको अलङ्कारशास्त्रीय अध्ययन* शीर्षकमा शोधकार्य गरिएको छ । यसमा अलङ्कारको शास्त्रीय चर्चा गरी महाकवि कालिदासद्वारा रचित 'ऋतुसंहार' काव्यको पृष्ठभूमि दिई 'ऋतुविचार' खण्डकाव्यमा प्रस्तुत अलङ्कारको सूक्ष्म निरीक्षण गरिएको छ । अर्थालङ्कारको सुन्दर संयोजनले प्रस्तुत कृति कालजयी र सर्वोत्कृष्ट बन्न गएको ठहर गरिएको छ । सापकोटा (२०६०) द्वारा *तरुण तपसीमा अलङ्कार विधान* शीर्षकमा लेख प्रकाशित गरेका छन् । यसमा लेखनाथ पौड्यालले भावोत्कर्षका लागि अलङ्कार संयोजन गरी लालित्यपूर्ण, माधुर्ययुक्त, प्रसादगुण सम्पन्न सौन्दर्यले परिपूर्ण काव्य सिर्जना गरिएको उल्लेख गरेका छन् । निरौला (२०६३) द्वारा *माधव घिमिरेका खण्डकाव्यमा अलङ्कार योजना* शीर्षकमा शोधकार्य गरिएको छ । यसमा अलङ्कारको सैद्धान्तिक चर्चा प्रस्तुत गरी यसका आधारमा माधव घिमिरेका खण्डकाव्यहरूको अध्ययन गरिएको छ । अलङ्कारका दृष्टिले घिमिरेका नौवटा खण्डकाव्यहरूमध्ये सर्वोत्कृष्ट कृतिका रूपमा इन्द्रकुमारी रहेको र उनका कृतिहरूमा सर्वाधिक सङ्ख्यामा अतिशयोक्ति अलङ्कारको प्रयोग भएको र उनी अलङ्कारसिद्ध कवि भएको निष्कर्ष निकालिएको छ । कोइराला (सन् २०१३) द्वारा *महाकवि लक्ष्मीप्रसाद देवकोटाको शाकुन्तल महाकाव्य र महाकवि कालिदासको अभिज्ञान शाकुन्तलम् नाटकको तुलनात्मक अध्ययन* शीर्षकमा शोधकार्य गरिएको छ । यसमा अलङ्कारका आधारमा दुई कृतिको तुलना गर्ने सन्दर्भमा अलङ्कार प्रयोगका दृष्टिले महाकवि कालिदास सर्वोत्कृष्ट रहे पनि प्राकृत अलङ्कार प्रयोगका दृष्टिले महाकवि देवकोटा पनि उनको सन्निकट पुग्न सफल रहेको निष्कर्ष निकालिएको छ । उक्त शोधकार्यको अध्ययनले प्रस्तुत लेखको सैद्धान्तिक अवधारणा तयार पार्नमा तथा विश्लेषण गर्नमा सहयोग पुऱ्याएको छ ।

अनुसन्धान विधि

गुणात्मक विधि उपयोग गरिएकाले यसमा पुस्तकीय विधि अनुरूप सामग्री सङ्कलन गरिएको छ । प्राथमिक सामग्रीका रूपमा निर्मोही व्यासद्वारा रचित तस्वीर तिम्रै (२०७५) रहेको छ । द्वितीयक सामग्रीका रूपमा शोधपत्र, पूर्वीय साहित्याचार्यका ग्रन्थहरू, नेपाली समालोचकका ग्रन्थहरू र पत्रिका रहेका छन् । उक्त ग्रन्थहरूको गहन अध्ययन गरी प्राप्त तथ्यलाई वर्णनात्मक तथा विश्लेषणात्मक विधिअनुरूप वर्णन तथा विश्लेषण गरिएको छ ।

सीमाङ्कन

यो अध्ययन निर्मोही व्यासका अन्य कृतिहरूमा प्रवेशै नगरी तस्वीर तिम्रै (२०७५) मा मात्र सीमित छ । यसमा शब्दालङ्कार र यसका प्रकारहरूको अन्वेषण गरिएको छैन । यसमा अर्थालङ्कारअन्तर्गत उपमा, रूपक, उत्प्रेक्षा, उत्तर, कार्यकारण कारणकार्य, सार, विनोक्ति, स्वभावोक्ति, सन्देह, वक्रोक्ति, विकल्प, संकर, श्लेष, व्याजनिन्दा, अपह्नुति, प्रेय, सहोक्ति, भावसन्धि, स्मरण, दृष्टान्त, भावसन्धि, कारणमाला, लोकोक्ति, भावोदय, अन्योन्य, भाविक र काव्यलिङ्ग गरी २७ अलङ्कारको मात्र अन्वेषण गरिएको छ ।

तस्वीर तिम्रैको विश्लेषण

"तस्वीर तिम्रै" मुक्तक सङ्ग्रहमा उल्लिखित मुक्तकहरूलाई निम्नलिखित अर्थालङ्कारका भेदका आधारमा विश्लेषण गरिएको छ :

उपमा (लुप्तोपमा)

दुई व्यक्ति वा वस्तु (उपमान र उपमेय) को सादृश्य वा तुल्यतालाई उपमा भनिन्छ (शर्मा र लुइँटेल, २०६१ : ६४) । यसमा उपमेय, उपमान, समान धर्म र सादृश्यवाचक शब्द हुनु अपेक्षित हुन्छ । उपमा अलङ्कारका चारबटा घटकहरूमध्ये कुनै एक, दुई अथवा तीन घटकहरूसम्म लोप हुँदा लुप्तोपमा अलङ्कार हुन्छ (श्रेष्ठ, २०५४: ११९) । उपमानसँग उपमेयको र उपमेयसँग उपमानको परस्परमा सादृश्य जनाउँदा उपमेयोपमा अलङ्कार हुन्छ । यस्तो अलङ्कारमा उपमान र उपमेयका बीच परस्परमा उपमानोपमेय भाव रहेको हुन्छ (श्रेष्ठ, २०५४: १२०) । अलङ्कारका यी भेदमध्ये लुप्तोपमा अलङ्कारको एउटा उदाहरण यस्तो छ :

सदा फक्रिऊँ शारदी जूनजस्तै !
भरेली भई मौसमी फूलजस्तै !
ममा मोहनी छर्छ-उन्मुक्त हाँसो !
सदा फक्रिऊँ ग्रीष्मको घामजस्तै ‼

प्रस्तुत मुक्तकको उपमानका रूपमा शारदी जून, मौसमी फूल, ग्रीष्मको घाम, उपमेय नायिका (लुप्तअवस्थामा), समान धर्म फक्रिनु र भरिली हुनु र सादृश्यवाचक शब्द "जस्तै' प्रयोग भएको छ । यसैले यहाँ लुप्तोपमा अलङ्कार रहेको छ ।

रूपक

उपमेयमा उपमानको अभेद आरोप गरी फलानु नै फलानु हो भन्दा रूपक अलङ्कार हुन्छ (शर्मा र लुइँटेल, २०६१ : ६६) । यसले कवितामा व्यङ्ग्य सृष्टि गर्दछ । रूपकको सुन्दर संयोजन रहेको एउटा मुक्तक यस्तो छ :

तिमी जानकी औ तिमी राम मेरो !
तिमी नै त राधा र हौ श्याम मेरो !
परंतत्त्वलाई कहाँ लिङ्ग-भेद !
तिमी नै तिमी हौ सबै धाम मेरो ‼ मु.९१, पृ.५८ ।

प्रस्तुत पद्यमा कुनै परंतत्त्वमा जानकी, राम, राधा, श्याम र सबै धामको अभेदारोप गरिएकाले यहाँ रूपक अलङ्कार रहेको छ ।

उत्प्रेक्षा

एक प्रकारको वस्तु (उपमेय) मा अर्को प्रकारको वस्तु (उपमान) को सम्भावना देखाउँदा उत्प्रेक्षा अलङ्कार हुने गर्छ (श्रेष्ठ, २०५४: १२२)। यसमा उपमेय नै उपमान पो हो कि भन्ने सम्भावना देखाइएको हुन्छ।

तिमी रूप रानी कि वा रातरानी !
र मुस्कान मानौँ खुलेकी विहानी !
अदा मातलाग्दा सबै किन्तु सत्ते !
झनै मोहनीदार तिम्रो रिसानी !! श्लो.७, पृ. १६।

यस मुक्तकमा नायिकाको मुस्कानमा खुलेकी विहानीको सम्भावना देखाइएको हुँदा यहाँ उत्प्रेक्षा अलङ्कार रहेको देखापर्दछ।

उत्तर

प्रश्नको उत्तरद्वारा उन्नति वा अवनति बुझाउन खोजिँदा उत्तर अलङ्कार हुने गर्छ (पन्त, २०५६: १०२)। यसमा पहिले कसैलाई वा लेखकले आफैंलाई प्रश्न गरी त्यसको जवाफ सोझै वा प्रकारान्तरले दिइएको हुन्छ।

खुसी खोज्नलाई कहाँ जानुपर्छ ?
बताऊ न हे मित्र ! के गर्नुपर्छ ?
छ सर्वत्र आकीर्ण त्यो, भेट्नलाई !
डुबुल्की स्वयंभित्र नै मार्नुपर्छ !! मु.२७, पृ. २६।

प्रस्तुत मुक्तकमा खुशी खोज्न कहाँ जानुपर्ने र के गर्नुपर्ने भनेर प्रश्न गरी स्वयंभित्र डुबुल्की मार्नुपर्ने भनी उत्तर दिइएको छ। यसैले यसमा उत्तर अलङ्कार रहेको देखिन्छ।

सार

कुनै पनि वस्तुको उत्कर्ष वा अपकर्ष **उत्तरोत्तर भएमा सार अल**ङ्कार हुन्छ (पन्त, पृ.८४) उन्नति वा अवनति क्रमिक रूपमा बढ्दै जाँदा यो अलङ्कार हुन्छ। यसको उदाहरण हेरौं :

तिमी धाम मेरो कहाँ अन्त धाऊँ ?
तिमीमै सदा भक्तिले छल्छलाऊँ !
हियामा सजाएर तस्वीर तिम्रै !
प्रिया ! तृप्ति नै तृप्तिले मग्मगाऊँ !! मु.४, पृ.१४।

माथि उल्लिखित मुक्तकमा नायकले नायिकालाई शुरुमा आफ्नो लक्ष्य भएको र त्यो बिस्तारै भक्तिभावले हृदयमा समाहित भई अन्त्यमा तृप्ति नै तृप्तिमा रूपान्तरित हुने इच्छा प्रकट गरेको छ। यसर्थ यहाँ भावको एकपछि अर्को उत्कर्षता प्राप्त गर्दै अघिबढेकाले यहाँ सार अर्थालङ्कार रहेको देखापर्दछ।

विनोक्ति

कुनै कुराको अभावमा प्रस्तुत विषय राम्रो वा नराम्रो वयान गरेमा विनोक्ति अलङ्कार हुन्छ। कुनै कुराको अभावले प्रस्तुत विषयमा हीनताबोध हुँदा पनि विनोक्ति नै हुन्छ। यस सङ्ग्रहभित्र प्रस्तुत यसको उदाहरण यस्तो छ :

जुनेली विनाको कहाँ खुल्छ जून !
विना-बाँसुरीको कहाँ बज्छ धून !

फुलेको कहाँ देखिएको छ कैल्यै !
विना-प्रीतिले जिन्दगीको प्रसून !! श्लो. ८, पृ.१६ ।

जुनेली किरणको अभावमा जून, बाँसुरीकै अभावमा सुरिलो धून र प्रीतिविना जिन्दगीको फूल नफुल्ने वर्णन गरिएकाले यसमा विनोक्ति अर्थालङ्कार पर्न गएको छ ।

स्वभावोक्ति

स्वभाव भनेको कुनै पनि प्राणी वा वस्तुको गुण वा बानी बेहोरा हो भने उक्ति भनेको भनाइ हो । यसैले स्वभावोक्ति भनेको कुनै पनि प्राणी वा वस्तुको मिल्दो वा सुहाउँदो वर्णन भन्ने हुन्छ (थापा, २०५०: २७६) । समसामयिक जीवनजगत्लाई यथार्थपरक ढाँचामा अभिव्यक्त गर्दा स्वभावोक्ति अलङ्कारको सृष्टि हुन पुग्दछ । यस काव्यमा पनि नायिकाले स्वजीवन र सांसारिक जगत् र तज्जन्य तीतामीठा भोगाइ पस्कने सन्दर्भमा प्रस्तुत गरिएका पद्यहरू निकै स्वाभाविक र जीवन्त रहेका छन् । यहाँ स्वभावोक्तिको एउटा उदाहरण हेरौँ :

जहाँ सत्य नै हुन्न सत्ता त्यही हो !
र लज्जा जहाँ हुन्न सत्ता त्यही हो !
जहाँ हुन्छ संवेदना मूल्यहीन !
चिनारी यही स्पष्ट सत्ता त्यही हो !! मु.२५, पृ.२५ ।

सत्ता भएका ठाउँमा सत्य, लज्जा र संवेदना टिक्न नसक्ने यथार्थ वर्णन गरिएको हुँदा यसमा स्वभावोक्ति अर्थालङकार रहेको छ ।

सन्देह

कुनै विषय (उपमेय)का बारेमा बढाइ चढाइ गरेर रमणीय पाराले वर्णन गर्दा उत्पन्न हुने अर्थालङ्कारलाई अतिशयोक्ति अलङ्कार भनिन्छ (श्रेष्ठ, २०५४ : १२२) । यहाँ यसको नमुना यस्तो छ :

रमाऊँ म कोसङ्ग ! कोसङ्ग हाँसूँ !
दिने हो खुशी जो उही दिन्छ आँसु !
हरे जिन्दगी हो कि कालो बजार !
जहाँ आँसु सस्तो, महङ्गो छ मासु !! मु.३८, पृ.३१

यसमा रमाउने र हाँस्ने कोसङ्ग, आँसु सस्तो हुने र मासु महङ्गो भएकाले यो जिन्दगी हो कि कालो बजार हो भन्नेमा सन्देह पैदा भएकाले यसमा सन्देह अलङ्कार रहेको छ ।

यहाँ नित्य चल्ने यो घोडदौड !
अघाउन्न हेरी म यो घोडदौड !
यहाँ खोज्नु मान्छे महाभूल हुन्छ !
नबिर्से सँगी ! यो त हो घोडदौड !! मु. ७४, पृ. ४९

विकल्प

चातुर्यपूर्ण समान बल भएका तत्वको विरोध देखाएमा विकल्प हुन्छ पन्त, पृ. ९२) । यसमा कुनै एक विकल्प प्रस्तुत गरिएको हुन्छ ।

कसै-निम्ति 'हाहा..हिही..' मै मजा छ !
कसै-निम्ति 'खा, पी र सुत्'मै मजा छ !
सबै निम्ति भिन्नै मजाको मुहान
मलाई भन 'घुम् र लेख' मै मजा छ !! मु. ४८, पृ. ३६ ।

यसमा 'हाहा..हिही..', खा पीर सुत्' 'घुम र लेख' जस्ता इच्छाहरूको उल्लेख गरिएको छ । यी धेरै विकल्पमध्ये लेखकलाई चाहिँ' 'घुम र लेख' कै विकल्प उत्तम लागेकाले यसैमा खुशी र आनन्दित रहेको वर्णन गरेबाट विकल्प अलङ्कार रहेको छ ।

संकर

एउटा अलङ्कारको अर्को अलङ्कारसित अङ्गाङ्गीभाव एउटा अलङ्कारभित्र अरू अलङ्कारको प्रवेश र धेरैथरी अलङ्कारको मिसावटमा कुन चाहिँ प्रमुख हो छुट्याउँन सन्देह हुने दूधपानी जस्तै मिसिदा संकर अलङ्कार हुन्छ (पन्त, पृ. ११५) । यसको एउटा उदाहरण हेरौं :

अदेखा छ खेल्ने कुनै, मात्र हामी-
भकुन्डो सबै हौं सु-नामी कु-नामी !
अचम्मै छ लीला ! त्यसैले कतै त-
सँगै भेटिने ठ्याक्क जन्ती-मलामी !! मु.५३, पृ.३९ ।

ए सुनामी र कुनामी तथा जन्ती र मलामी कथन विषम भावयुक्त छ । हामी र भकुन्डोमा अभेदारोप गरिएकाले यसमा रूपक अलङ्कार पनि प्रस्तुत छ । एउटै मुक्तकमा विषम र रूपक अलङ्कार प्रस्तुत रहेकाले यसमा संकर अलङ्कार रहेको देखिन्छ । रूपक र सन्देह अलंकारको सुन्दर संयोजन रहेकाले संकर अलङ्कारको सिर्जना भएको अर्को एउटा उदाहरण पनि अवलोकन गरौं :

घृणा नर्क हो, स्वर्ग स्नेह नानी !
अडेको छ यो स्नेहमै जिन्दगानी !
गरौं स्नेह ज्यूँदै छँदा, के मरे त !
मिलोस् पिण्ड-पानी कि तातो खरानी !! मु.६२, पृ.४३

श्लेष

आचार्य विश्वनाथले श्लेष र वक्रोक्ति दुवैलाई शब्दालङ्कारमा मात्र सीमित गरेको भए पनि अर्थश्लेषको पनि चर्चा गरिएको पाइन्छ । कुवलयानन्दमा नानार्थसंश्रयः श्लेषो वर्ण्यावर्ण्योभयाश्रय : अर्थात् प्रस्तुत अप्रस्तुत दुवैमा लाग्ने द्विअर्थी शब्दको प्रयोगलाई श्लेष भनिन्छ । सभङ्ग, अभङ्ग र श्लेषलाई अर्थश्लेषमै समेटिएको छ (पन्त, २०५६ : ६३)।

यहाँ गिद्धले चीलले राज्य गर्छन् !
चमेरा र उल्लू यशोगान गर्छन् !
छ हुच्चीलको हूल सल्लाहकार !
र आजका मैना सुँगा कैद पर्छन् !! मु.७२, पृ.४८

सोभ्रो अर्थमा यसमा गिद्ध र चीलले राज्य गर्ने, चमेरा र उल्लूले राज्य गर्नेहरूको प्रशंसा गर्ने हुच्चीलहरू शासकका सल्लाहकार रहने र त्यस्तो राज्यमा सुगा र मैनाहरूचाहिँ कैद पर्ने वर्णन छ । यस कथनबाट नेपालको

वाग्डोर सम्हाल्ने शासकलाई गिद्ध र चील, तिनका प्रशंसकलाई उल्लू र चमेरा, सत्ताप्रमुखलाई सल्लाह दिनेलाई हुच्चील असल नागरिकलाई मैना र सुगाका रूपमा अर्थ्याइएकाले यसमा अर्थश्लेष अलङ्कार रहेको देखिन्छ ।

व्याजनिन्दा

यसमा सादृश्यपूर्ण र चमत्कारपूर्ण संशय हुनु अवश्यक हुन्छ । निन्दा र स्तुति वाच्य भएर स्तुति र निन्दा व्यङ्ग्य हुन आएमा दुई व्याजस्तुति र व्याजनिन्दा अलङ्कार हुन्छ (पन्त, २०५६: ६८) । स्तुति व्यङ्ग्य भएमा व्याजस्तुति र निन्दा व्यङ्ग्य भएमा व्याजनिन्दा हुन्छ । यसको एउटा उदाहरण यस्तो छ :

बलात्कार हत्या सुनी हुन्छ दर्द !
स्व पुंसत्वमै लाग्छ रोपूँ म कर्द !
न पोथी हुँदैमा हुने हेय कोही !
न भाले हुँदैमा हुने हुन्छ मर्द !!

प्रस्तुत मुक्तकमा पुरुषले आफूलाई भाले सम्झेर निर्दोष बालिकाहरूलाई बलात्कार गर्ने र दोष लुकाउन तिनको निर्मम हत्या गरेको घटनालाई सुनेपछि नायकले त्यस्ता अधम पुरुषको निन्दा मात्र गर्दैनन् आफू पुरुष भएकोमा समेत दुःख व्यक्त गर्दछन् । यहाँ पुरुषका प्रवृत्तिको निन्दा गरिएकाले यहाँ व्याजनिन्दा अलङ्कार रहेको छ ।

अपह्नुति

प्रस्तुत उपमेय वा प्रकृतलाई निषेध गरेर होइन भनेर अप्रस्तुत उपमान वा अप्रकृत वस्तुको स्थापन (आरोप) गर्नुको नाम अपन्हुति हुन्छ (प्रकृतं प्रतिषिध्यान्यस्थापनं स्यादपन्हुति : साहित्यदर्पण) । झुटो आरोप गर्न साँचो हटाउनुको नाम नै अपन्हुति हो (पन्त, २०५४: ४५) । यसको प्रयोग भएको एउटा श्लोक हेरौँ :

तिमी होइनौ आम, हौ खास मेरी
तिमी नै त हौ ढुकढुकी, सास मेरी
भनूँ के अरू-ऍ बसन्ती बतास !'
तिमी नै स्वयं तृप्ति औ प्यास मेरी !! मु.८९, पृ.५७ ।

यसमा नायिका (तिमी) लाई जो कसैको होइनौ भनेर खास आफ्नो मात्र ढुकढुकी, तृप्ति र प्यास भएको वर्णन गरिएकाले यसमा अपह्नुति अलङ्कार रहेको छ ।

प्रेय

भाव नै रसको अङ्ग बन्दा वा रस नै भावको अङ्ग बन्दा प्रेय अलङ्कार हुन्छ (पन्त, २०५४: ११६) । यसमा भाव रसको वा रस भावको अङ्ग बनेमा पनि प्रेय अलङ्कार हुन्छ । एउटा उदाहरण हेरौँ :

तिमी नित्य बढ्दै चुली चुम्न जाऊ !
पुगी देउराली ध्वजा फर्फराऊ !
बधाई ! तिमी बाटिका सिर्जनाकी !
सदा पुष्पिता भै युगौँ मग्मगाऊ । मु.९८, पृ.६१

यसमा प्रेमभाव शृङ्गार रसको अङ्ग बनेर प्रस्तुत भएको छ । यसैले यसमा प्रेय अलङ्कार रहेको देखिन्छ ।

सहोक्ति

सह शब्दको अर्थका बलले उपमान उपमेय दुवैलाई बुझाउँदा सहोक्ति हुन्छ (सहार्थानां बलादेकं यत्र स्याद्वाचकं सहोक्ति भनिन्छ (सहार्थस्य बलादेकं यत्र स्याद्वाचकं द्वयोः, साहित्य दर्पण) (पन्त, २०५४: ५८) । सँग, सित साथ आदि अर्थ बुझाउने सह शब्दको संयोजन हुँदा सहोक्ति अलङ्**कार हुन्छ । यो अल**ङ्कार प्रयोग भएको एउटा उदाहरण हेरौँ :

तिमी साथमै छयौ भने स्वर्ग के छ !
तिमी साथ छैनौ भने स्वर्ग के छ !
मलाई प्रिया ! साथ चाहिन्छ तिम्रो !
भए साथ नर्कै 'अहा' स्वर्ग के छ !! मु.१०४, पृ.६४ ।

तिमी (नायिका) साथमा नभए स्वर्ग पनि तुच्छ लाग्ने र नायिका साथमा भए नर्कै पनि स्वर्ग लाग्ने वर्णन गरिएको छ । यसैले नायिकासँगको साथ नै विषय बनेर आएकाले यहाँ सहोक्ति अलङ्कार रहेको छ ।

भावसन्धि

एकै ठाउँमा दुइटा दुइटा भावको अन्तर्द्वन्द्व हुँदा भावसन्धि हुन्छ (पन्त, २०५६: ११८)। यसमा मनमा विद्यमान दुईवटा भावहरूका बीच परस्पर अन्तर्द्वन्द्व हुँदा यो अलङ्कार हुन्छ ।

म आएँ कहाँबाट ? जाने कहाँ हो ?
न फर्के कुनै भन्नलाई 'यहाँ हो' !
खुशीले जिऊँ आज, के मृत्यु चिन्ता !
मरी जाउँला जानुपर्ने जहाँ हो !! मु.११४, पृ.६९

यसमा आउने र जाने, जीवन र मृत्यु जस्ता दुई भावहरूका बीच अन्तर्द्वन्द्व देखाइएको हुँदा यसमा भावसन्धि अलङ्कार रहेको छ ।

स्मरण

सदृशानुभवाद्वस्तु स्मृति स्मरणमुच्यते साहित्य दर्पण अर्थात् उस्तै उस्तै उपमानको भानले उपमेयको सम्झना भएमा स्मरण अलङ्कार हुन्छ पन्त, २०५४: ३६) ।

न सम्झे -ममा बिर्सनै-बिर्सना छ !
र, सम्झे - सधैँ सम्झनै-सम्झना छ !
म तिर्खालु आषाढकी बादलु हे !
ममा भेटको तिर्सनै तिर्सना छ !! मु. १९२, पृ.१०८ ।

यस मुक्तकमा नायकसँग विगत जीवनका भोगाइहरूको सम्झनाको पहाडै पहाड रहेकाले यसमा स्मरण अलङ्कार रहेको छ ।

दृष्टान्त

दृष्टान्तस्तु सधर्मस्य वस्तुतः प्रतिबिम्बनम् साहित्य दर्पण अर्थात् एउटै किसिमको धर्मवाला वस्तुको बिम्बप्रतिबिम्बभाव सम्बन्ध भएमा दृष्टान्त अल ङ्कार हुन्छ । बिम्बप्रतिबिम्बभाव सम्बन्धद्वारा समानधर्मी वस्तुको वर्णन गर्दा दृष्टान्त अल ङ्कार हुन्छ । यसको सुन्दर समन्विति रहेको एउटा मुक्तक पढौँ :

तमिस्रा चिरी सूर्य आलोक छर्छ !
अँध्यारो चिरी चाँदनी चन्द्र छर्छ !
विना हुन्छ सङ्घर्ष सत्कार्य सिद्धि ?
हलीले धरित्री चिरी बीज छर्छ !! मु.१५७, पृ. ९१ ।

प्रस्तुत मुक्तकको तेस्रो हरफमा सङ्घर्ष नगरेसम्म अपेक्षित सत्कार्यको सिद्धि हुन नसक्ने जस्तो महत्त्वपूर्ण कथनलाई चौथो हरफको हलीले कडा सङ्घर्षका साथ हलो जोतेर मात्र धर्तीमा बीज छर्ने र अन्न उपार्जन गर्न सफल हुने उदाहरण प्रस्तुत गरिएको छ । यसैले प्रस्तुत मुक्तकमा दृष्टान्त अलङ्कार रहेको देखिन्छ ।

कारणमाला

परं परं प्रति यथा पूर्वं पूर्वस्य हेतुता तदा कारणमाला स्यात् साहित्य दर्पण । अघिल्लो कार्य पनि त्यसपछिको लागि कारण बनेको अवस्थामा कारणमाला अल ङ्कार हुन्छ । यसमा पहिलेको कार्य पछिको कारण गाँस्तै गाँस्तै माला जस्तो बनाउँदा कारणमाला अलङ्कार हुन्छ । यस्को एउटा जबर्जस्त मुक्तक पढौं :

फुलोस् प्रीति थोरै घना याद हुन्छ !
त्यही यादमा स्वादिलो माद हुन्छ !
र, त्यो माद बढ्दै चुलीमा पुगे झन् !
भनी साध्य के ! मिल्न उन्माद हुन्छ !! मु.१७१, पृ.९८

घना यादबाट स्वादिलो माद हुने, स्वादिलो मादबाट चुली प्राप्त गर्दै अन्ततः त्यसबाट उन्माद प्राप्त हुने वर्णन गरिएको छ । यसरी यादबाट माद, मादबाट उन्माद प्राप्त हुने हुँदा यसमा कारणमाला अलङ्कार रहेको छ ।

लोकोक्ति

जनसाधारणमा प्रयोग हुने उखान टुक्काहरूको प्रयोग गर्दा उत्पन्न हुने अलङ्कारलाई लोकोक्ति अलङ्कार मानिन्छ ।

भएजत्ति लूतो परै फाल्नुपर्छ !
र दृष्टान्त आफैं बनी थाल्नुपर्छ !
रहे रात अग्राख हुर्कन्छ फेरि !
बुझी सत्य यो, रातमै ढाल्नुपर्छ !! मु.१७२, पृ.९८ ।

यसमा रात रहे अग्राख हुर्कन्छ (पलाउँछ) भन्ने प्रसिद्ध लोकोक्तिलाई कवितामा प्रस्तुत गरिएको छ । यसैले यसमा लोकोक्ति अलङ्कार रहेको छ ।

भावोदय

एउटा भावको प्रस्तुतिबाट अकाृए भावको उदय हुँदा भावोदय अलङ्कार हुन्छ (पन्त, २०५४: ११८) । हेरौं यसको एउटा दृष्टान्त :

मरुद्यानमा सर्वदा धाउँदै छु !
स्वयंमा म सौदामिनी पाउँदै छु !
कला साधनामा कहाँ पो बुढ्यौली !
म शृङ्गारका गीत गाउँदै छु !! मु.१८६, पृ.१०५ ।

यसमा बुढ्यौली लागेका नायक पनि बिस्तारै शृङ्गारिक लयमा पुगेको हुँदा भावोदय अलङ्कार रहेको छ ।

अन्योन्य

अन्योन्यमुभयोरेकक्रियायाः कारणं मिथः साहित्यदर्पण अर्थात् एउटै कार्यमा दुवै थरीले पारस्परिक सहयोग गरेमा अन्योन्य अलङ्कार हुन्छ । यसमा दुवै तत्वका बीच परस्पर उपकारको भावना रहेको हुन्छ । यसको एउटा सुन्दर प्रयोग भएको एउटा मुक्तक यस्तो छ :

लजाई तिमी जत्ति नै दूर जाऊ !
प्रिया ! प्रीतिले रोकिहाल्नेछ पाउ !
बुझेकी तिमीले, बुझेकै छु मैले !
दुवैको हिया नै त हाम्रो छ ठाउँ !! मु.२०८, पृ.११६ ।

यसमा नायक र नायिका दुवैले एकअर्काको भावना बुझेर भावनाकै कदर गरेको हुँदा यसमा अन्योन्य अलङ्कार रहेको देखिन्छ ।

भाविक

बितेको र पछि हुने अनौठा कुराको वर्णन गर्दा भाविक अलङ्कार हुन्छ । पन्त, २०५४: अद्भुतस्य पदार्थस्य भूतस्याथ भविष्यतः यत्प्रत्यक्षायमाणत्वं तत्भाविकमुदाहृतम् अर्थात् बितेका र पछि हुने अर्थका प्रत्यक्ष वर्णन गर्दा यो अलकङ्कार हुन्छ ।

छ धोको-कतै साङ्ग्रिलामा म जाऊँ !
बजाएर वंशी म नाचूँ-रमाऊँ !
सबै बिर्सिई चित्त पारेर खाली !
परंसत्यको ध्यान गर्दै बिलाऊँ !! मु.२०८, पृ.११६ ।

यसमा साङ्ग्रिलामा जाने र वंशी बजाएर नाच्ने रमाउने, सबै पीर बिर्सिएर चित्त खाली पारेर परंसत्यको ध्यान गर्दै बिलाउने भावको वर्णन गरिएकाले भाविक अलङ्कार रहेको देखिन्छ ।

काव्यलिङ्ग

हेतोर्वाक्यपदार्थत्वे काव्यलि ङ्गं निगद्यते साहित्यदर्पण । अर्थात् वाक्यार्थ र पदार्थलाई हेतु बनाएर दुवै कुराको समर्थन बुझाउँदा काव्यलिङ्ग अलङ्कार हुन्छ (पन्त, २०५४: ८५) । समर्थन गर्नुपर्ने अर्थलाई समर्थन गर्नु नै काव्यलिङ्ग हो ।

म तिम्रो सधै यादमा धाउनेछु !
बनी बादलू प्यार वर्षाउनेछु !
खुलै झ्याल राख्नू परेलीहरूको !
म तिम्रो सधैं स्वप्नमा आउनेछु !! मु.२१५,पृ.१२० ।

नायिकाको यादमा सधैं धाउने कथनलाई बादल बनेर प्यार वर्षाउने र आफू सधैं सपनामा आउने कथनहरूले समर्थन गरिएकाले यसमा काव्यलिङ्ग अलङ्कार रहेको देखिन्छ ।

यसतिरिक्त यसमा तद्गुण, अतद्गुण, अतिशयोक्ति, विषम, तुल्ययोगिता, अधिक, परिकर, अधिक, परिणाम, विचित्र, उल्लेख अलङ्कार प्रयोग भएका छन् ।

सारांश

अलङ्कारको उल्लेख ऋग्वेदमा पनि गरिएको फेलापर्छ । यो पूर्वीय समालोचना सिद्धान्तमध्ये शैलीपक्षसँग जोडिएको एक महत्वपूर्ण सिद्धान्त हो । यसलाई आचार्य भामहले काव्यको प्राणतत्वका रूपमा हेरेका छन् । आनन्दवर्द्धन, विश्वनाथ, जगन्नाथ आदि आचार्यहरूले चाहिँ यसलाई काव्यमा शोभा बढाउने तत्वका रूपमा स्वीकार गरेका छन् । मुख्य तत्वका रूपमा वा गौणतत्वका रूपमा स्वीकार गरिए पनि साहित्यमा यसको स्थान महत्वपूर्ण रहेको छ । यसैले यसमा अर्थालङ्कारका मानक सिद्धान्तलाई अनुसरण गरी नेपाली साहित्यगगनका एक जीवन्त हस्ताक्षर निर्मोही व्यासद्वारा रचित "तस्वीर तिम्रै" (२०७५) मुक्तक सङ्ग्रहको अध्ययन तथा विश्लेषण गरिएको छ । यसमा गुणात्मक विधि अवलम्बन गरिएको छ । यसैले यसमा पुस्तकीय विधि अनुरूप सामग्री सङ्कलन गरिएको छ । प्राप्त सामग्रीहरूको वर्णनात्मक तथा विश्लेषणात्मक विधिअनुरूप वर्णन तथा विश्लेषण गरिएको छ । शब्दालङ्कारको चर्चा नगरी अर्थाङ्लकार स्पष्ट छुट्टिएका र मुख्य लागेका उपमा, रूपक, उत्प्रेक्षा, उत्तर, कार्यकारण, सार, विनोक्ति, स्वभावोक्ति, सन्देह, वक्रोक्ति, विकल्प, संकर, श्लेष, व्याजनिन्दा, अपह्नुति, प्रेय, सहोक्ति, भावसन्धि, स्मरण, दृष्टान्त, भावसन्धि, कारणमाला, लोकोक्ति, भावोदय, अन्योन्य, भाविक र काव्यलिङ्ग अलङ्कारको प्रयोग गरिएको छ । यसमा उपेन्द्रवज्रा लयमा सृजित यी अलङ्कार कृत्रिम नभई विशुद्ध प्राकृत रहेका छन् । यी अलङ्कारले मुक्तकको सौन्दर्य सृजना गर्नुका साथै सशक्त रूपमा व्यङ्ग्यार्थ प्रधान कृतिको दर्जा दिलाएका छन् । यसर्थ अलङ्कार प्रयोगका दृष्टिले प्रस्तुत कृति उच्च कोटिको सुन्दर सिर्जना बनेको छ । यसमा सादृश्यमूलक, अभेद प्रधान, विरोधमूलक, शृङ्खलाबन्धक, तर्कन्यायमूलक, वाक्यन्यायमूलक, लोकन्यायमूलक र गूढार्थ प्रतीतिमूलक अन्तर्गतका अर्थालङ्कारको सुन्दर परिदृश्य देखिएको छ । उपेन्द्रवज्रा लयमा सृजित मुक्तकमा प्रयुक्त यी अलङ्कार कृत्रिम छैनन् । ती विशुद्ध र प्राकृत देखापरेका छन् । यिनले मुक्तकको सौन्दर्य सृजना मात्र गरेका छैनन् बरु कृतिलाई नै व्यङ्ग्यार्थ प्रधान कृतिको दर्जा दिलाउनमा अहंभूमिका खेलेका छन् । यसर्थ अलङ्कार प्रयोगका दृष्टिले हेर्दा प्रस्तुत कृति उच्च कोटिको सुन्दर सिर्जनाको रूपमा देखिएको छ ।

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(लेखक मध्यबिन्दु बहुमुखी क्याम्पस, नवलपुरमा नेपाली भाषा विषयका सहप्राध्यापक हुनुहुन्छ ।)

पूर्व सेवाकालीन शिक्षकका लागि अभ्यास शिक्षणको भूमिका

पुष्पराज अधिकारी

परिचय

शिक्षक तालिमको अभिन्न अङ्गको रुपमा अभ्यास शिक्षणलाई लिइन्छ । कुनै पनि विषयमा शिक्षण सिकाइ क्रियाकलापको सफलता भन्ने कुरा शिक्षकको कलाकारिता र उसले अवलम्वन गरेको शिक्षण विधिमा भर पर्दछ । अभ्यास शिक्षणले शिक्षकलाई वास्तविक कक्षामा प्रवेश गर्नभन्दा पूर्व कक्षाकोठाको सिकाइ वातावरणलाई कसरी सहज र सरल बनाउँन सकिन्छ भन्ने कुराको ज्ञान प्रदान गर्दछ । विशेष गरी शिक्षाशास्त्र संकायमा अध्ययनरत विद्यार्थीहरुले सैद्धान्तिक विषयको अध्ययन गरेपश्चात प्राप्त गरेका सैद्धान्तिक ज्ञानलाई यथार्थ तरिकाले व्यवहारमा उतार्नका लागि गरिने अभ्यास नै अभ्यास शिक्षण (Practice Teaching) हो । अभ्यास शिक्षणमा छात्र शिक्षकहरु (Student Teachers) संम्लग्न रहन्छन्, जसका लागि सम्बन्धित विषयका प्रशिक्षकहरुले मार्ग निर्देशन प्रदान गर्दछन् । अभ्यास शिक्षणबिना छात्र शिक्षकहरुलाई शिक्षण दक्षता प्राप्त हुदैन । त्यसकारण अभ्यास शिक्षणलाई शिक्षक शिक्षा कार्यक्रमको लागि अनिवार्य प्रायोजित पाठ्यांश मानिन्छ (काफ्ले र अन्य, २०६५) ।

विद्यार्थीहरुले अभ्यास शिक्षणको प्रयोगबिना निश्चित समय अविधभित्र विद्यालय वा विश्वविद्यालयहरुमा सिकेका किताबी ज्ञान र सैद्धान्तिक विषय वस्तुलाई मात्र आधार मानेर त्यसलाई आफ्नो शैक्षिक व्यवहारमा उतार्न र बिभिन्न शिक्षण सिकाइ क्रियाकलापमा संलग्न रहन सक्दैनन् । त्यस अवस्थामा पाठ्यक्रमले निर्धारण गरेका उद्देश्य र लक्ष्यहरु पुरा गर्नका लागि शैक्षिक उद्देश्यहरु निर्माण गर्न, शैक्षिक सामग्रीहरुको निर्माण र प्रयोग गर्न, शैक्षिक कार्यनीतिहरुको संचालन र मुल्याङकन प्रक्रियामा समाबेश भई अभ्यास गर्नको लागि गरिने शिक्षण नै अभ्यास शिक्षण हो (अभ्यास शिक्षण पुस्तिका, २०७५) । शिक्षण कार्य एउटा प्राविधिक विषय भएको र शिक्षाशास्त्र विषय अध्ययन गर्ने विद्यार्थीहरु भोलि राष्ट्रका गुणस्तरीय शिक्षक बन्नुपर्ने हुनाले वास्तविक रुपमा शिक्षण पेशामा आवद्ध हुनुपूर्व उनीहरुमा शिक्षण पेशासँग सम्बन्धित ज्ञान तथा सीपको जरुरत पर्दछ जसका लागि अभ्यास शिक्षण कार्यक्रम अर्थपूर्ण हुन्छ । जसका लागि विद्यार्थीहरु निश्चित समय अवधिभित्र क्याम्पसले खटाएको सहयोगी विद्यालयमा गई शिक्षणको अभ्यास गनुपर्दछ जहाँ विद्यार्थीहरुलाई शिक्षणसँग सम्वन्धित सीपहरु जस्तै वार्षिक कार्यपात्रो निर्मार्ण, शैक्षणिक योजनाहरुको निर्माण, साप्ताहिक कार्यतालिका निर्माण, प्रश्न निर्माण र विश्लेषण, उत्तर कुञ्जिकाको निर्माण, परीक्षा संचालन, परीक्षा विश्लेषण, पाठयक्रम र पाठयपुस्तक विश्लेषण, विद्यालय अभिलेखीकरण तथा अतिरिक्त क्रियाकलाप संचालन गर्ने सीपहरुको समेत सिक्ने अवसर प्राप्त गर्दछन् (अभ्यास शिक्षण समिति, २०७५) । त्यसैले अभ्यास शिक्षणलाई पेशागत ज्ञान, सीप र प्रवृत्तिहरु विकास गरी दक्ष एवम् निपूर्ण शिक्षक तयार पार्ने कार्यक्रमको रुपमा लिइन्छ ।

प्रस्तुत लेखले त्रिभुवन विश्वविद्यालय अन्तर्गत स्नातक र स्नातकोत्तर कार्यक्रमका अभ्यास शिक्षण विषयको स्वरुप, विद्यार्थी सिकाईमा प्रभावकारिता, कार्यान्वयनमा चुनौती तथा समस्या समाधानका उपायहरु औंल्याउने प्रयास गरेको छ । तसर्थ शिक्षाशास्त्र संकायका विद्यार्थी तथा प्राध्यापकहरु र सम्पूर्ण शिक्षकहरुमा अभ्यास शिक्षण विषयको उपादेयताको बारेमा यस लेखले केही जानकारी दिनेछ ।

अभ्यास शिक्षण कार्यक्रमको औचित्य

त्रिभुवन विश्वविद्यालय शिक्षाशास्त्र संकाय अर्न्तगतका क्याम्पसहरुमा सञ्चालित एक वर्षे, वि.एड., चार वर्षे वि. एड. तथा एम. एड. तहमा अभ्यास शिक्षण एक अनिवार्य पाठयांश हो । यो पाठ्यांशको मुख्य उद्देश्य तालिमप्राप्त र गुणस्तरीय शिक्षक उत्पादन गर्नु हो (शिक्षण अभ्यास पाठ्यक्रम, २०७५) । शिक्षणलाई कला र विज्ञानको संयोजनको रुपमा लिइन्छ । तसर्थ अभ्यास शिक्षणले विद्यार्थीले हासिल गरेका ज्ञानलाई मनोवैज्ञानात्मक तवरले प्रभावकारी ढंगसँग वालवालिकाहरु सामु प्रस्तुत गर्न सक्षम बनाउँदछ । यस अर्थमा अभ्यास शिक्षणलाई समग्र शिक्षाशास्त्र संकायको आत्माको रुपमा समेत चित्रण गर्न सकिन्छ । अभ्यास शिक्षणले शिक्षणको क्षेत्रमा ठूलो अनुभव संकलन गर्न, शिक्षकलाई पेशागत रुपमा सामाजिकरण गर्दै सिकाइका अबसरहरु प्रदान गर्न, शिक्षकलाई भविष्यको सफलता प्रदान गर्न शिक्षणमा गुणस्तरीयता बृद्धि गर्न, विद्यालय र विद्यार्थीहरुसँग संवोगात्मक सहभागिता सम्मिलीकरण (Involvement) गर्ने र शिक्षण संस्कृतिको बाटो अवलम्वन गर्नुको साथै उपयुक्त शैक्षिक सामग्रीको निर्माण तथा छनोट गरी विषयवस्तुसँग सम्बद्ध शिक्षण विधि र उचित मूल्याङ्कन प्रविधिको प्रयोग गर्दै अभ्यासको आवश्यक अवसर प्रदान गरी प्रत्येक छात्रशिक्षकहरुलाई दक्ष बनाउने हुनाले शिक्षाशास्त्र र समग्र शिक्षा क्षेत्रमा अभ्यास शिक्षण कार्यक्रमको औचित्य रहेको छ ।

अभ्यास शिक्षण कार्यक्रमको स्वरुप (त्रि.वि. अर्न्तगतको चार वर्षे वि.एड. र एम.एड)

त्रिभुवन विश्वविद्यालय शिक्षा शास्त्र संकाय अर्न्तगतका एक वर्षे, वि.एड, चार वर्षे वि.एड, एम.एड. तहमा विद्यार्थीहरुलाई छात्रशिक्षकको रुपमा क्याम्पसहरुले आवश्यक प्रशिक्षण पश्चात विद्यालयहरुमा शिक्षणका लागि पठाउने गर्दछन् । विद्यार्थीहरु सहयोगी विद्यालयमा जानुपूर्व आफूले अध्यापन गर्ने विषयको पाठ्यक्रम, शैक्षणिक योजना, सामग्री निर्माण तथा मूल्यांकनका साधनहरुबारे जानकार हुन्छन् । यसको लागि उनीहरुले सूक्ष्म शिक्षण तथा सहपाठी शिक्षणगरी आवश्यक पृष्ठपोषण आफ्ना सहपाठीहरु तथा प्रशिक्षकहरुबाट प्राप्त गर्दछन् । यसका लागि त्रि.वि. शिक्षाशास्त्र संकायले तहगत रुपमा अभ्यास शिक्षणको पाठ्यभार तोक्नुको साथै अभ्यास शिक्षण संचालन कार्यविधि समेत निर्माण गरेको छ ।

चारवर्षे वि.एड.कार्यक्रम

त्रि.वि.शिक्षाशास्त्र संकायमा चार वर्षे वि.एड. तहका विद्यार्थीहरुले चौथो वर्षमा अनिवार्य विषयको रुपमा १०० पूर्णाङ्कको अभ्यास शिक्षणको पाठ्यक्रम अध्ययन गर्दछन् । यसमा छात्र शिक्षकहरुले सूक्ष्म शिक्षण, सहपाठी शिक्षण र वास्तविक कक्षा शिक्षण गर्दछन् । सुक्ष्म शिक्षणमा छात्र शिक्षकहरुले क्याम्पसले निर्धारण गरेको २४ दिनको पूर्वशिक्षण अभ्यास कार्यक्रममा अनिवार्य संलग्न रहदा न्यूनतम १५ वटा पाठयोजना बनाई ७/८ जनासम्मको समूहमा ८ देखि १० मिनेटको समयमा शिक्षण सामग्रीहरु सहित १० वटा कक्षा शिक्षण गर्नुपर्दछ । साथै आफ्नो विषयका सहपाठीहरुले शिक्षण गरेका २ वटा कक्षा अवलोकन गरी सहपाठी कक्षा अवलोकन फारम भरी टिप्पणी र सुझाव दिनुपर्दछ । सूक्ष्म शिक्षणको पूर्णाङक १५ र उत्तीर्णाङ्क ६ रहने छ (शिक्षाशास्त्र संकाय, २०७५) ।

छात्रशिक्षकहरुले सहपाठी शिक्षणको क्रममा छुट्याएको ४० घण्टी मध्ये न्यूनतम १५ वटा पाठयोजना बनाई विषय गत रुपमा ३० मिनेटको पुरा कक्षाको विद्यार्थी समूहमा ६ वटा कक्षा विषयगत रुपमा लिई २ वटा सहपाठी कक्षा अवलोकन फारम आन्तरिक सुपरिवेक्षकको उपस्थितिमा भरेर पृष्ठपोषण प्रदान गर्नु पर्दछ । सुक्ष्म शिक्षण र सहपाठी शिक्षण पश्चात विषयगत र वस्तुगत प्रश्न निर्माण गरी उत्तरकुञ्जिका समेत बनाई तोकिएको उत्तीर्णाङ्क

प्राप्त गरेपछि मात्र छात्रशिक्षकलाई विद्यालय शिक्षणमा पठाइनेछ । सहपाठी शिक्षणको पूर्णाङ्क २० र उत्तीर्णाङ्क ८ रहने छ (शिक्षाशास्त्र संकाय, २०७५) ।

विद्यालय शिक्षण कार्यक्रममा २० दिनको अविधमा न्यूनतम १२ वटा पाठयोजना बनाई कम्तिमा १२ वटा कक्षा शिक्षण गर्ने, कार्य योजना बनाउने, समय तालिका बनाउने, सम्बन्धित कक्षाको विषय शिक्षकको कक्षा अवलोकन गर्ने, आफूले शिक्षण गरेको कक्षामा १ सेट प्रश्नपत्र बनाई परीक्षा लिएर उत्तर पुस्तिका परीक्षण गरी नतिजा निकाल्ने र नतिजा विश्लेषण गर्ने समूहमा अतिरिक्त क्रियाकलाप संचालन गरी प्रतिवेदन तयार पार्ने, विषयगत र वस्तुगत प्रश्न निर्माण गर्ने, उत्तरकुञ्जिका तयार पार्ने, दैनिक कार्यविवरण अभिलेख र विद्यालय अभिलेख तयार पर्ने जस्ता कार्यहरु छात्रशिक्षकहरुले गर्नुपर्दछ । विद्यालय शिक्षण कार्यक्रमको पूर्णाङ्क २० र उत्तीर्णाङ्क ८ रहने छ । र सहयोगी विद्यालयको प्र.अ. बाट पूर्णाङ्क ५ छात्राशिक्षक लाई प्रदान गरिने छ । जसमा सूक्ष्म शिक्षण पूर्णाङ्क १५, सहपाठी शिक्षण पूर्णाङ्क २०, विद्यालय शिक्षण पूर्णाङ्क २० र सहयोगी विद्यालयको प्र.अ. बाट पूर्णाङ्क ५ गरी आन्तरिक मूल्याङ्कन कर्ताले पूर्णाङ्क ६० मा प्राप्ताङ्क दिन सक्नेछन् भने वाह्य परीक्षकले यी सबै कार्यहरुको मूल्याङ्कन गरी पूर्णाङ्क ४० मा अंक प्रदान गर्नेछन् (शिक्षाशास्त्र संकाय, २०७५) ।

एम. एड. तहको कार्यक्रम

त्रिभुवन विश्वविद्यालय शिक्षाशास्त्र संकायमा एम.एड तहको चौथो सेमेष्टारको पाठ्यक्रममा ५० पूर्णाङ्कको अभ्यास शिक्षण कार्यक्रमलाई अनिवार्य विषयको रुपमा समावेश गरिएको छ । छात्रशिक्षकहरुलाई समग्र सैद्धान्तिक विषयको मात्र ज्ञानदिँदा उनीहरुको शिक्षणमा निखारपन नआउने र दैनिक पाठयोजना निर्माण गर्ने, शिक्षण सिकाई क्रियाकलापमा विभिन्न शिक्षण विधिहरुको प्रयोग गर्ने, मूल्याङ्कनका साधनहरुको निर्माण, प्रयोग र विश्लेषण गर्ने उद्देश्यका साथ यस तहमा अभ्यास शिक्षण कार्यक्रमलाई समावेश गरेको हो (शिक्षाशास्त्र संकाय) ।

त्रिभुवन विश्वविद्यालय शिक्षाशास्त्र संकाय एम.एड तहका छात्रशिक्षकले गर्ने क्रियाकलापहरु :

एम.एड. तहमा अध्ययनरत छात्रशिक्षहरुले अभ्यास शिक्षण कार्यक्रममा जम्मा ४ वटा Stage हरु पार गर्नु पर्दछ । जुन निम्नानुसार छन् ।

Stage 1 (Micro teaching): सूक्ष्म शिक्षणमा छात्रशिक्षकहरुले जम्मा ९ घण्टाको गर्नुपर्ने हुन्छ । यसमा शिक्षकले Operational Calendar, Workplan, Unit Plan, Daily Less on plan – 9 वटा बनाउनुपर्ने हुन्छ । जसमा ३ वटा lesson plan अनुसारको शिक्षण गर्नुपर्ने lesson plan अनुसारका teaching materials बनाउनु पर्ने, सहपाठी फारम १ वटा भर्ने, र सहपाठी छात्रशिक्षकलाई पृष्ठपोषण प्रदान गर्ने कार्य गर्दछन् ।

Stage 2 (Peer teaching): यस Stage मा छात्रशिक्षकहरुले दैनिक पाठयोजना १० वटा पाठयोजना, अनुसारका आवश्यक शैक्षिक सामाग्रीहरु सहपाठी फारम २ वटा विषयगत र वस्तुगत गरी २ सेट प्रश्ननिर्माण गर्ने गर्दछन् ।

Stage 3 (Teaching at school or campus): छात्रशिक्षकहरुले वास्तविक रुपमा शिक्षण गर्न गएको सहयोगी विद्यालय वा क्याम्पसहरुमा गएर दैनिक पाठयोजना १२ वटा, सहपाठी फारम २ वटा भर्ने परीक्षाको लागि १ सेट प्रश्न निर्माण गर्न, उत्तरकुञ्जिका निर्माण गर्ने, प्रश्नको स्तरीकरण गरी विश्लेषण गर्ने, कार्यगत अनुसन्धान (Action Research) निर्माण गर्नुपर्दछ।

Stage 4 (Overall report writing): छात्रशिक्षकहरुले अभ्यास शिक्षण कार्यक्रममा यी ३ वटा तहहरु कार्यहरु पुरा गरी सकेपश्चात समग्र कार्यक्रमको प्रतिवेदन (Overall Report Writing) तयार पार्नुपर्दछ । यस प्रतिवेदन मा

वार्षिक कार्यपात्रो, एकाई योजना, दैनिक पाठयोजना, सुक्ष्म अभ्यास शिक्षण, सहपाठी कक्षा शिक्षण, विद्यालय वा क्याम्पसमा गर्ने वास्तविक कक्षा शिक्षणको प्रतिवेदन प्रश्नपत्र निर्माण र Question Test को लागि विश्लेषण गर्ने, कार्यमूलक अनुसन्धान को प्रतिवेदन तयार पार्ने, निष्कर्ष लेख्ने र अन्तिममा Appendix परिशिष्टाङ्क राखी प्रतिवेदन तयार पार्ने गर्दछन् (शिक्षाशास्त्र संकाय,२०७५) ।

अभ्यास शिक्षण कार्यक्रममा सबल पक्षहरु

नेपालमा तालिमप्राप्त र गुणस्तरीय शिक्षक उत्पादन गर्ने उद्देश्यले त्रि.वि. शिक्षाशास्त्र संकायले अभ्यास शिक्षण विषयलाई महत्वपूर्ण स्थान दिएको छ । सैद्धान्तिक ज्ञानलाई व्यवहारमा उतार्न सक्ने सक्षम शिक्षक उत्पादन गर्नु यो कार्यक्रमको सबल पक्ष हो । व्यवहारिक रुपमा सबल शिक्षक हुनका लागि आवश्यक शिक्षण सिकाइ सीप तथा शैक्षणिक योजना निर्माण गर्नसक्ने सीपको विकास गर्नु अभ्यास शिक्षणको अर्को सबल पक्ष हो । प्रत्येक छात्रशिक्षकले दैनिक पाठयोजना बनाउने, नियमित रुपले कक्षा शिक्षण गर्ने, कक्षाकोठाको उचित व्यवस्थापन गर्ने, कक्षागत सबै प्रकारका एकाई वा त्रैमासिक मूल्याङ्कन गरी प्रगति विवरणको नमूना तयार पार्ने, अतिरिक्त क्रियाकलाप सामुहिक रुपमा तयार पार्ने, विद्यालयको शिक्षक बैठकको छलफलमा भाग लिने र दैनिक कार्य विवरणको अभिलेख (Daily Log Book) तयार पार्नेजस्ता क्रियाकलापहरुले भविष्यको लागि सक्षम शिक्षक उत्पादनमा अभ्यास शिक्षण विषयको महत्वपूर्ण भूमिका हरेको छ । यस कार्यक्रमले छात्रशिक्षकहरुमा देहायबमोजिमका सीपहरुको विकास गर्दछ ।

छात्र शिक्षकले विद्यालय शिक्षणमा गइ सहयोगी विद्यालय र क्याम्पसको बिचमा सामन्जस्यता कायम गराउने, विद्यालयका प्र.अ. र शिक्षकहरु र विद्यार्थीहरुसँग सहकार्य गर्ने, शैक्षणिक योजना निर्माण गर्न, शिक्षकको व्यक्तित्व तथा नोकरी विवरण फारम भर्ने, विद्यालय तथ्याक फाराम, विद्यालय सुधार योजना र शिक्षकको लगवुक फाराम प्रतिवेदन तयार पार्ने, अतिरिक्त क्रियाकलाप संचालन गर्ने, आदि सिपहरु सिक्ने गर्दछन् । त्यसैगरी वार्षिक कार्यतालिका निर्माण गर्न पाठयोजना निर्माण र शिक्षण गर्न, विद्यालय अभिलेख तयार पार्न सहपाठी कक्षा अवलोकन फारम भर्न विषयगत प्रश्न र वस्तुगत प्रश्न निर्माण गर्न, उत्तरकुञ्जिका निर्माण गर्न विद्यार्थीहरुको गृहकार्य परीक्षण गर्न समूहमा अतिरिक्त क्रियाकलाप संचालन गरी प्रतिवेदन तयार पार्न, दैनिक कार्यविवरण अभिलेख राखी प्रतिवेदन तयार पार्न विद्यालयको प्रतिवेदन तयार पार्ने, परीक्षा संचालन एंवम् परीक्षाको विश्लेषण गर्ने, पाठ्यक्रम वा पाठ्पुस्तकको विश्लेषण गरी प्रतिवेदन तयार पार्ने, बालअध्ययन तयार पार्ने सीप सिक्नेछन् ।

अभ्यास शिक्षण कार्यक्रम कार्यान्वयन समस्या / चुनौतीहरु

अभ्यास शिक्षण कार्यक्रम अति आवश्यक र महत्वपूर्ण शैक्षिक पाटो हो । अभ्यास शिक्षण कार्यक्रमलाई अत्यन्त व्यवस्थित र मर्यादित बनाउनुपर्ने हुन्छ । यस कार्यक्रमलाई प्रभावकारी बनाउने र छात्रशिक्षकहरुलाई उनीहरुले आफ्नो दैनिक जीवनमा सिकेका किताबी ज्ञान र सौद्धान्तिक विषय वस्तुलाई व्यवहारमा उतार्न केही चुनौतीहरु रहेका छन् । त्रि.वि.ले अभ्यास शिक्षणको पाठ्यक्रमलाई वि.एड. चौथो वर्षमा राखी अनिवार्य कक्षा संचालन गर्ने भनेतापनि क्याम्प्पसहरुमा नियमित रुपमा यसको पठनपाठन नहुनु, शिक्षकले क्याम्पसमा सुक्ष्म शिक्षण, सहपाठी शिक्षणमा सिकाउन खोज्दा र सहयोगी विद्यालयमा पठाउदा विद्यार्थी नियमित नहुनु, विभिन्न शैक्षिक सामग्री र उपकरणहरुको विनानै छात्रशिक्षक कक्षा कोठामा जाँदा प्रभावकारी तरिकाले शिक्षण गर्ने नसक्नु, विद्यालयमा प्र.अ. शिक्षक र विद्यार्थीहरुसँग राम्रो सँग घुलमिल हुन नसक्नु, पाठ्यक्रमसँगको शिक्षणको तालमेल मिलाउन नसक्नु, श्रव्य दृश्य सामग्रीहरुको अभाव हुन, भौगोलिक कठिनाई हुनु, विभिन्न शिक्षण सीपहरु र विद्यार्थीहरुको बिचमा सन्तुलन मिलाउन नसक्नु, क्याम्पसहरुले नियमित अनुगमन गर्न नसक्नु, विद्यालय नै नगएर प्र.अ. सँग मिलेर हाजिरी प्रमाणित गरी ल्याउनु, छात्रशिक्षकहरुलाई विद्यालय प्रशासन र विषय शिक्षकले जिम्मेबार दिन नसक्नु, विद्यार्थीहरुका

अभिभावक विद्यालय व्यवस्थापन समितिसँग सम्पर्क गरी सहयोग लिन नसक्नु, शैक्षिक सामाग्रीहरुको निर्माणमा जोड नदिनु, छात्रशिक्षहरुले अभ्यास शिक्षण राम्रो सँग गरेका भविष्यको तालिम प्राप्त र शिक्षक तयार हुन्छ भन्ने धारणा नराखी पास हुन पाए हुन्थ्यो भन्ने धारणाको विकास गरी भ्mारा टार्नु आदि ।

समस्या समाधानका उपायहरु

अभ्यास शिक्षण कार्यक्रमका विभिन्न चुनौतीहरु वा समस्याहरु रहेतापनि यसलाई अभ्यास शिक्षण सँग सरोकार राख्ने विद्यार्थी, प्राध्यापक, क्याम्पस प्रशासन, सहयोगी विद्यालयका प्र.अ. विषय शिक्षकहरु अन्य शिक्षकहरु वि.व्य.स. अभिभावक र विद्यार्थीहरुले आफूले जिम्मेबारीका साथ कार्य सम्पन्न गर्ने हो भने समस्याहरु समाधान भएर जान्छन् । त्रि.वि.ले निर्धारण गरेको पाठ्यक्रम अनुसार क्याम्पसले नियमित अभ्यास शिक्षणका कक्षा संचालन गर्ने, विद्यार्थीहरु नियमित क्याम्पस उपस्थित भई अध्ययन गर्ने, सुक्ष्म शिक्षण, सहपाठी शिक्षण र विद्यालय शिक्षणमा अनिवार्य उपस्थित भई शिक्षकले सिकाएका कुराहरु सिक्ने, सहयोगी विद्यालयहरुको वि.व्य.स. प्र.अ. विषय शिक्षकहरु अन्य शिक्षकहरु र विद्यार्थीहरु सँग सहकार्य गर्न दैनिक पाठयोजना निर्माण गरेर मात्र कक्षमा प्रवेश गर्ने, शैक्षिक सामग्रीहरुको निर्माण र प्रयोगमा जोड दिने, विद्यार्थीहरुलाई केन्दविन्दुमा राखेर शिक्षण गर्ने, फरक क्षमता भएका विद्यार्थीहरुको मनोविज्ञान बुझ्ेर शिक्षण गर्ने, क्याम्पसले नियमित अनुगमन गर्ने, विद्यालयलाई पनि जिम्मेवार बनाउने गर्ने हो भने अभ्यास शिक्षण कार्यक्रमलाई प्रभावकारी बनाउन सकिन्छ ।

निष्कर्ष

अभ्यास शिक्षण कार्यक्रम समग्र शिक्षाशास्त्र संकायको मेरुदण्ड हो । अभ्यास शिक्षणलाई प्रभावकारी बनाउन सकेमा मात्र गुणस्तरीय शिक्षक उत्पादन हुन सक्छन र तिनै शिक्षकहरुले गुणस्तरीय शिक्षा मार्फत समाज परिवर्तन गर्न सक्छन् । एउटा शिक्षकका लागि आवश्यक सीपहरु सिकेर विद्यार्थीहरुले कुनै डिग्री वा तह मात्र हाँसिल गर्ने नभइ शिक्षक बन्नका लागि आवश्यक दक्षता समेत आर्जन गर्दछन् । यति गहकिलो विषय तथा कार्यक्रमलाई नेपालका अधिकांस क्याम्पसहरुले आवश्यक ध्यान दिन नसक्दा अभ्यास शिक्षणको गरिमा घट्न गएको महसुस हुन थालेको छ । कार्यक्रम कार्यन्वयनमा देखिएका चुनौतीहरु समाधान गरी विषयको मर्म अनुसार कार्यन्वयन गर्न सके अभ्यास शिक्षण विषयको ओझ्ा अझ्ा बढ्नेछ । यसका लागि त्रि.वि., शिक्षाशास्ब संकाय, सम्बन्धित क्याम्पसहरु र त्यहाँका विषय समितिहरु, प्राध्यापक तथा सहयोगी विद्यालयहरुले आ-आफ्नो जिम्मेबार बहन गर्नुपर्दछ ।

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प्राकृतिक विपद र भौतिक पुर्वाधार विकास

वद्री अधिकारी

परिचय

नेपाल विश्वका अरु देशको तुलनामा सानो मुलक हो र यस मुलक भन्दा साना अरु मुलुकहरु पनि छन तापनि भौगोलिक वनावटमा हिमाल, पहाड र तराई भूभाग यस मुलकमा रहेको छ । त्यसैगरी यी तिनवटै भू-भागमा मानवबस्ती तथा समुदाय र समुदायले जीवन धान्ने कृषियोग्य जमिन रहेको पाइन्छ । हिमाली पहाडी र तराई गरी जम्मा १७६६६०० हेक्टर जमिन भित्र नै विभिन्न गाँउ शहर तथा बस्ती ऐतिहासिक समय देखि वसिरहेको पाइन्छ । यसै भुमागमा सामुदायिक विकासको लागि नेपाल सरकारले विकास संग सम्वन्धित नीति बनाइ भौतिक पूर्वाधारको संरचना निर्माण गर्दै आइरहेको छ ।

विकासको लागि आवश्यक पर्ने भौतिक संरचना तयार गर्न सरकारले केही दशक अगाडिदेखि सहभागितामुलक विकास नीति वनाइ आयोजना कार्यान्वयन गर्दै आइरहेको पाइन्छ । पहाडी वस्ती र तराइ भूभागमा मनसुनी जलवायुको प्रभाव धेरै पर्ने भएको हुदा कृषि तथा अर्थतन्त्रमा सकरात्मक योगदान रहेको देखिन्छ भने समुदायको लागि निर्माण गरिने भौतिक पूर्वाधार विकासमा बाधा र विचारणीय अवस्था सिर्जना पनि हुने गरेको पाइन्छ ।

- हिमाली जलवायु भएको हिमाली क्षेत्र
- मनसुनी जलवायु भएको मध्य पहाडी क्षेत्र
- मनसुनी जलवायु भएको तराइ समथर क्षेत्र

सामान्यतया हिमाली क्षेत्रमा मनसुनी समयमा पनि पानी पर्ने कम र पातलो नै रहेको पाइन्छ भने मध्य पहाडी क्षेत्र तथा समथर तराइ क्षेत्रमा भने मनसुनी वायु चल्ने समयमा भने पानी धेरै पर्ने गर्दछ । नेपालमा उच्च मनसुनको समय आषाढ, श्रावण र भाद्रमा रहने गर्दछ । यसै वर्षात्को समयमा आर्थिक उपार्जनको लागि कृषि कार्यको गतिविधिहरु हिमाली पहाडी तथा समथर क्षेत्रमा समेत धेरै हुने गर्दछ र हिमाली क्षेत्रमा सुक्खा पहिरो मध्य पहाडी क्षेत्रमा पहिरो, भूक्षय, खोला तथा नदी कटान हुने गरेको देखिएको छ भने तराइमा डुवान र उत्पादनशिल जमिनको सिट कटिङ्ग भइरहेको देखिन्छ जसबाट समुदायमा विभिन्न किसिमका भौतिक तथा मानसिक समस्या सिर्जना भएको पाइन्छ । एकातिर आकासको पानी अनि अर्को तर्फ विकासको लागि अव्यवस्थित तरिकावाट निर्मित विभिन्न भौतिक संरचनाको कारणवाट यो समयमा समुदाय, सरकार र विभिन्न संस्थाहरुले निकै नै समय र साधन जोखिमको व्यवस्थापनमा खर्चनु परेको पाइन्छ ।

जतिपनि भू-क्षय तथा डुबान एवं बाढीका समस्या देखिएका छन तिनीहरुमा ९० प्रतिशत समस्या वर्षात्को समयमा नै आउने गर्दछ भने हामीले जानेर वा नजानेर बनाएका संरचना तथा हाम्रो ज्ञान कतिपय अवस्थामा भने दोषी भएको पाइएको छ । मानव निर्मित भौतक पूर्वाधारवाट थप समस्या नपार्नको लागि सामाजिक वातावरणीय अध्ययन, विस्तृत प्राविधिक अध्ययन र भौतिक वातावरणीय अध्ययन सँगसगै गरी भौतिक विकास आयोजना कार्यान्वयन गर्नु आवश्यक छ र दीगो विकासमा यिनै कराहरुले विशेष भुमिका खेलेको हुन्छ । जोखिम र विपद एक आपसमा सम्वन्धित भएकाले जोखिमयुक्त भौतिक पुर्वाधार विकासमा समुदायलाई नै अग्रसर बनाएर गरिने विकास कार्यमा पनि सम्वन्धित लाइन एजेन्सीहरुले विचार पुऱ्याउन आवश्यक देखिन्छ ।

भौतिक संरचना र वातावरणवीचको सम्बन्ध

हावा, पानी, जमिन, वनस्पति, प्रकाश, ग्यास आदि सवै स्रोत प्रकृतिको वरदान हो । यी सवै प्रकृतिको वरदानहरु मानिसलाई चाहिन्छ र प्रकृतिमा यी सवै तत्वहरु निश्चित मात्रामा रहेका छन त्यसैगरी सवै प्राणी सँग वातावरण सम्वन्धित पनि छन । प्राकृतिक स्रोत वेगर मानिस र मानव समाज वाच्न सक्दैन उन्नतिको त कुरा कता हो कता । यसर्थ मानव उन्नति, विकास र पतन पनि वातावरणीय सन्तुलन संगसंगै हुने गर्दछ । भौतिक पुर्वाधारको विकास पनि यसै प्राकृतिक स्रोतमा आधारित रहेको हुन्छ । प्रकृतिमा रहेका विभिन्न स्रोतको संरक्षण गर्दै त्यसको जगमा विकास गरिने भौतक संरचनाहरु नै भौतिक पूर्वाधारहरु हुन भने राज्यले यसको विकासबाट समुदायको जीवनवृत्तिको प्रणालीमा लैजाने प्रयास गरेको हुन्छ ।

भौतिक विकासको कममा विभिन्न पूर्वाधारहरु जस्तै सडक, बिजुली, संचार, कलेज, हस्पिटल, खानी, नहर निर्माण, एअरपोर्ट, भवन, फोहोर निकास प्रबन्ध, औद्योगिक क्षेत्र स्थापना आदिको निर्माण गर्दा वातावरणमा खलल गर्नेगरी काम गर्नाले आँफैलाई वा सिंगो मानव समाज, बस्ती, समुदायलाई समस्याहरु थप हुंदै जाने गर्दछ । भौतिक संरचनाहरु पनि मानवले वनाएको भौतिक विकासको पुर्वाधार पनि हो प्रकृतिमा रहेका सबैस्रोतको अवस्था अनुसार सामाजिक, आर्थिक र प्राविधिक अध्ययनको नतिजाको आधारमा विकास हुन आवश्यक रहेको पाइन्छ ।

यसर्थ मानिसहरुले गरेका सिर्जना र प्रकृतिको बिचमा रहेर हामीले विकास उपयोग गर्दै जानु पर्दछ भन्ने विचार सबै क्षेत्रका र विधाका विज्ञहरुको भनाइ रहेको पाइन्छ । साधारणतया भौतिक विकास सँग सम्वन्धित गतिविधिमा समुदायले के गर्न आवश्यक छ, भन्ने विषय अहिलेको वर्तमान अवस्थामा ध्यान दिन आवश्यक रहेको छ । अहिलेको वर्तमान समयमा नेपालको विभिन्न जिल्लामा गरिएका विकासका नमूनाहरुमा केन्द्रवाट समुदाय तथा समुदायवाट केन्द्र (Top to bottom and buttom to top) गरी २ प्रकारको भौतिक विकासको अभ्यास भएको पाइन्छ ।

भौतिक पुर्वाधारलाई दीगो रुपमा उपयोग गर्नको लागि भौतिक संरचनाको वरिपरीको भौगोलिक अवस्थामा समेत ध्यान दिनु पर्ने हुन्छ । बनेका भौतिक पुर्वाधार जथाभावी गर्ने, तिनको व्यवस्थापनको पक्षमा ध्यान नदिने, लादिएको रुपमा समुदायले लिने, ती विकास भएका संरचनाहरुमा फोहर गर्नुको साथै सदुपयोग नगर्नाको कारण वनस्पति, पशु, तथा मानव स्वास्थ्यमा समेत नकरात्मक असर देखा पर्ने सम्भावना आउँदछ । पहाडी भूभागमा भइ रहेको पहिरो तथा जमिनको भुक्षय पनि कतिपय रुपमा विना विस्तृत अध्ययन (Detail Survey) गरिएको पूर्वाधार विकास तथा निर्माण कार्य संग जोडिएको देखिन्छ ।

जहिले पनि भौतिक विकास भन्ने कुरा प्राविधिक अध्ययनको पक्ष, सामाजिक पक्ष र प्राकृतिक पक्षबीच त्रिकोणात्मक रुपमा जोडिएको हुन्छ । भौतिक पूर्वाधार, वातावरण र समुदायको वासस्थान बिचमा घनिष्ठ सम्वन्ध रहेको हुन्छ । मानिसले कसरी जीवन चलाउने भन्ने कुरा मानवले नै विकास गरेको सास्कृतिक पक्षले विशेष भुमिका खेलेको हुन्छ भने सांस्कृतिक गुणको विकास तिनै स्थानीय भूभागमा भएको वातावरणले निर्धारण गरेको हुन्छ । कुनै निश्चित स्थानमा वसोवास गर्ने समुदायको विकास संग जोडिएको संरचनाको सम्बन्ध कस्तो छ भन्ने कुराले समस्या निदानको रुपरेखा देखाएको हुन्छ ।

भौतिक पूर्वाधार पक्ष

- ❖ सडक, पुल, स्याव कलभर्ट र सडक संग जोडिएका भौतिक संरचनाहरु ।
- ❖ बिभिन्न पानी तार तथा एक्वेडक्ट कुलो, नहर, कुलेसा आदि ।
- ❖ भि. आर. वि. तथा आवागमनका पुल पुलेसाहरु ।

- खोला तथा नदी नियन्त्रणका स्पर ।
- विजुली उत्पादन तथा यस संग जोडिएका भौतिक संरचनाहरु ।
- भवन, आवास तथा यस संग जोडिएका भौतिक संरचनाहरु ।
- खानी तथा यससँग जोडिएका भौतिक संरचनाहरु ।
- एअरपोर्ट तथा यससँग जोडिएका भौतिक संरचनाहरु ।
- फोहोर निकास तथा व्यवस्थापन सँग जोडएका संरचनाहरु ।
- सञ्चार तथा यससँग जोडिएका भौतिक संरचनाहरु आदि ।

उपरोक्तानुसारका भौतिक पूर्वाधारहरु मानबले नै निर्माण गरेका कार्य वा गतिविधि हुन भने मानवले निर्माण नगरेको तर प्राकृतिक गुणहरु झन महत्वपूर्ण रहेका हुन्छन र यसैको विस्तृत अध्ययनको आधारमा भौतिक संरचनाको निर्माण हुन जरुरी भएको देखिन्छ ।

प्राकृतिक पक्ष

प्राकृतिक वा वातावरणीय पक्षमा मानवले निर्माण नगरेका तथा प्रकृतिवाट प्राप्त विभिन्न किसिमका कुराहरु हुन्छन, जसमा

- खोला, तलाउ, हिउ ।
- वायु वा हावा वा विभिन्न किसिमका ग्याँस आदि ।
- माटो वा ढुंगा वा वालुवा ।
- वन, विरुवा वा वनस्पति ।
- प्रकाश, ताप, आद्रता आदि ।
- बिभिन्न प्राणी, जनावर तथा चराचर प्राणी आदि ।

सामाजिक पक्ष

सामाजिक पक्षमा समाजमा रहेका र मानवले नै निर्माण गरेका बिभिन्न कुराहरुमा सामाजिक पक्ष रहेको हुन्छ र समाज निर्माणसँग सम्बन्धित रहेका बिभिन्न कुराहरु यसमा रहने गर्दछ ।

- समाज, समुदाय, वसोवासको पाटो ।
- घर, स्कुल, पाठशाला तथा शिक्षालय वा विभिन्न सामाजिक संस्था ।
- चौतारा, वाटो, पाटी पौवा ।
- मरनघाट, सन्धिसर्पन, गाउँवेसी ।
- खानेपानी, स्वास्थ्यचौकी, विजुली आदि ।
- बिभिन्न धार्मिक आस्थाका प्रतीक तथा पूजापाठका केन्द्रहरु आदि ।

यसर्थ भौतिक पूर्वाधार विकासको क्रममा माथि उल्लेख गरिएका तिनवटै पक्षमा सन्तुलन भएको हुनु पर्दछ । कुनै एक पक्षको मात्र अध्ययनगरी बनाइने भौतिक संरचनाको विकासले अरु पाटोमा असर देखाउन थाल्दछ । प्राकृतिक वस्तुहरुको अध्ययन नतिजा हेरी योजना कार्यान्वयन गरिदा सामाजिक वातावरण र प्रयोग गरिएको प्रविधि (Applied technology) मा नै खराबी तथा आँच आउन सक्ने देखिन्छ । अहिले पहाडी जिल्लाहरुमा देखिएको पहिरो तथा मानव बस्तीमा आएको विपद वा समस्या विस्तृत अध्ययन (Detail social and technological survey)

बिना गरिएका भौतिक पूर्वाधार विकासका परिस्थितिले सिर्जना गरेको समस्या हो । सामुदायिक विकासमा यस प्रकारको अवस्था रहे सम्म काम गर्दै गयो अर्को काम थपिदै जाने अवस्था आइ रहन्छ ।

मानव समुदायको जीवनयापन संग जोडिएका सांस्कृतिक गुणहरु जसरी स्थानीय वातावरणसँगै आधारित भएर आइरहेका हुन्छन भने समुदायको लागि गरिने भौतिक विकासमा पनि सामाजिक वातावरणलाइ आधार मानेर आयोजना कार्यान्वयन गरिन जरुरी देखिन्छ यद्यपि समुदायवाट नै माग गरी समुदायवाट नै गरिएका कतिपय सहभागितामुलक आयोजनाले भौतिक संरचनाको गुणस्तर कायम गरिएतापनि त्यसको कारणवाट भविष्यमा आउन सक्ने अर्कै प्रकारका समस्याको वारेमा सोच गरिएको देखिदैन । जस्तै पानी बहाबका साना साना कोर्स विगारेर मसिन प्रयोग गरी वाटो वनाइएको छ भने वर्षातको समयमा त्यही वनाइएको वाटोमा निस्केको माटो तथा ढुंगाले सम्वन्धित छेउछाउमा अवस्थित बस्ती तथा जीविकोपार्जनको लागि प्रयोग हने जमिनको क्षय क्रमशः बढ्दै गएको देखिन्छ ।

अझ गहिरिएर हेर्ने हो भने हिमाली क्षेत्रको जथाभावी निर्माण गरिएको भौतिक पूर्वाधारले पहाडी भू-भाग र पहाडी क्षेत्रमा वनाइएका जथाभावी भौतिक पुर्वाधारले तराइमा समेत असर पारेको पाइन्छ । जस्तै चुरेको अव्यवस्थित दोहनले बाहिरी तराइमा देखिएको कटान यसको उदाहरणको रुपमा लिन सकिन्छ । यसर्थ समग्रमा हेर्दा चाहे केन्द्रीकृत विकास आयोजना होस वा सहभागितामुलक आयोजना होस सबैमा सामाजिक, प्राकृतिक र प्राविधिक पक्षको गुरुयोजना तयारगरी भौतिक पूर्वाधार विकास आयोजना कार्यान्वयन गर्नु पर्छ भन्ने मान्यता सबै विधाका विज्ञहरुको भनाइ रहेको देखिएको छ ।

भौतिक पूर्वाधार तथा भौतिक संरचनाको निर्माण कामको कार्यान्वयन गर्दा अहिलेको अवस्थामा समुदायवाट गरिने सहभागितामूलक कामलाई प्राथमिकता दिइएको पाइन्छ र सरकारी निकायहरुवाट कार्यन्वयन प्रकृयामा साधारणतया ठेक्का पट्टाबाट, समदायलाई नै रकम प्रदान तथा श्रमदानबाट हुने गरिएको देखिन्छ भने यसमा दीगोपनाको अध्ययन खास रुपमा गरिएको देखिदैन । भौतिक विकासका योजनाको पहिचान, माग, कार्यन्वयन तथा अनुगमनमा समदायको महत्वपूर्ण योगदान रहन्छ तर दीगो विकासको अध्ययन नभएको कारण निकट भविष्यमा प्राकृतिक जोखमका अवस्था बढी रहेको हुन्छ ।

जोखिम न्यूनीकरणमा समुदायको भूमिका

प्राकृतिक जोखिम आउने बिभिन्न कारण हुन्छन् कतिपय समुदायको बाहुवुता भन्दा परको हन्छ भने कतिपयमा साधारणतया स्थानीय समुदायवाट विकास निर्माणको काममा ध्यान पुऱ्याउन सकिन्छ । समुदाय स्तरमा ध्यान पुऱ्याउन सकिने गतिविधि यस प्रकार रहेका छन ।

क) जथाभावी जमिन खन्ने, ढुगामाटो निकाल्ने आदि काम नगर्ने ।
ख) समुदाय वा घरबस्ती वरिपरीको ठूला रुख काटने वा मास्ने नगर्ने ।
ग) जंगल तथा वनस्पतीको संरक्षण गर्ने ।
घ) भौतिक संरचना र प्रणालीको उचित प्रयोग गर्ने ।
ङ) बाटोका नाली तथा सिंचाइ कुलोको पानी चोक हुन नदिने ।
च) भिरालो जमिनको माटो कच्ची भएको ठाँउमा वृक्षारोपण तथा बायोइन्जिनियरिङ्ग प्रविधि अगाडि सार्ने।
छ) वर्षाको मौसममा बाटोका नाली, कुलो तथा पाखाको पानीको निकास कोर्षमा ध्यान दिने ।
ज) निर्माणाधिन भौतिक संरचनाले water course मा अवरोध भएको छ कि शुरुमा नै ध्यान दिने ।

झ) पहिरो गएको स्थानमा पानी तर्काउने, पानी नहाल्ने र आवश्यकता अनुसार ग्याबियन वा वृक्षारोपण गर्ने ।

ञ) बस्ती वरिपरी पहिरोको शुरुवात भएकोमा वर्षातको समयमा विशेष ध्यान दिने ।

ट) प्रत्येक गाँउमा ल्याण्डफिल्ड साइट बनाउने आदि ।

हाल आफ्ना वरिपरीको स्थानीय खोला नदीमा देखिएको समस्यामा भौतिक निर्माणको लागि अत्याधिक मात्रामा वोल्डर र वालुवा निकाल्ने कार्य रहेको छ । त्यसैगरी भिरालो ठाँउमा ढुंगा, गिटी आदिको जथाभावी निकाल्नाले जसवाट बग्ने पानीको वहाव वाटो नै अप्रत्यासित रुपमा परिवर्तन हुने गरेको पाइन्छ । यी साधारण गल्तीले पनि समुदाय, बस्ती र उत्पादनशील जमिनको क्षति गर्ने कारण बन्न गएको छ । यसैले मानवका गतिविधिका कारण मानव बस्ती वा समुदायमा आउन सक्ने समस्याको लागि पहिला नै हामीले विचार गर्न आवश्यक छ ।

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(लेखक मर्स्याङ्दी बहुमुखी क्याम्पस वेसीशहरमा समाजशास्त्र विषय अध्यापन गराउनु हुन्छ ।)

नेपालमा विषादीको प्रयोग र प्रभावहरु

(Pesticide use and its effects in Nepal)

डा. विष्णु विलास अधिकारी

परिचय (Introduction)

मानव प्रयोजनकोलागि कारखानामा तयार गरिएका रोगनासक, किटनासक, झारनासक, मुसानासक, जुकानासक आदि रसायनयुक्त विषादीलाई रासायनिक विषादी भनिन्छ । विश्वमा १००० भन्दा बढी किसिमका विषदीहरुको प्रयोग गरिन्छ । अन्नवाली, तरकारी तथा फलफुल, चरनक्षेत्र, जंगलक्षेत्र, पशुपंक्षी आदिमा लाग्ने शत्रुजीवहरूलाई नियन्त्रण गर्न विषादीहरुको प्रयोग गरिन्छ । विषादीहरुको प्रयोगले मानिस, पशुपंक्षी, पानीमा बस्ने जीवहरु जस्तैः माछा, भ्यागुता, सर्प, गोही आदि, लाभदायक किराहरु, मौरी, भमरा, अन्य मित्रजीवहरु तथा माटोमा पाइने शूक्ष्म जीवहरुलाई समेत असर गरी समग्र वातावरणलाइ नै प्रदूषित बनाउँछ । खेतीपाती तथा पशुपालनमा जथाभावी विषादीको प्रयोग गर्नु उपर्युक्त हुँदैन । समयसमयमा आइपर्ने यस्ता समस्याहरुको समाधानका लागि प्रभावकारी वैकल्पिक उपायहरुको खोजी गर्नु अत्यावश्यक हुन्छ । विषादीको प्रयोग नगरी नहुने अवस्था आएमा मात्र अत्यन्त सजगतासाथ उचित खालको विषादी, सिफारिस मात्रा, उचित समय र तरिका मिलाएर प्रयोग गर्नुपर्छ । जसरी हामीले गहिरो नदी, अग्लो भीर, अग्लो रुख, आगोको दुरुपयोग आदिलाई जसरी खतराको रुपमा लिन्छौ र सतर्कता अपनाउँछौ, त्यसरी नै विषादीलाई खतराको पहिचान स्वरुप लिनुपर्ने हुन्छ ।

नेपालमा विषादीको प्रयोगको इतिहास हेर्दा सर्वप्रथम वि.सं. २००७ सालमा औलो नियन्त्रणकोलागि डी.डी.टी. नामक विषादी **"गण्डकी हाइड्रोपावर"** भन्ने परियोजनाले अमेरीकावाट ल्याएको पाइन्छ । विश्वमा वि. सं. २०१७ साल भन्दा पहिला अर्गानोक्लोरिन (खतरनाक) समुहका विषादीहरु औलो ल्याउने लामखुट्टे मार्नका साथै अन्नवालीका हानीकारक किराहरु मार्न प्रयोग गरिन्थ्यो । यो समुहका विषादीहरु बढी खतरनाक भएका र यिनको प्रयोगवाट वाली विरुवा, घरपालुवा तथा जंगली जनावर र वातावरण (हावा, पानी, माटो) मा प्रतिकूल असर परेको कारण अमेरिका लगाएतका विकसित देशहरुमा वि.सं. २०१७ साल पछि यी विषादीहरुको उत्पादन र प्रयोगमा रोक लगाइएको पाइन्छ । विश्वमा वि.सं. २०२७ सालसम्म अर्गेनोफसफेट समुहका विषादीहरु, वि.सं. २०२७ साल पछि कार्वामेटस् समुहका विषादीहरु र वि.सं. २०३७ साल पछि कम खतरनाक र केही सुरक्षित पाइरिथ्रोइड समुहका विषादीहरुको प्रयोग गरी वाली विरुवाका रोग, किरा तथा जरामा लाग्ने जुका, मुसा आदिको नियन्त्रण गर्ने गरेको पाइन्छ । विज्ञहरुको सिफारिस अनुसार उचित मात्रामा प्रयोग गरिएको विषादीले लक्षित रोग, किरा तथा झारपातहरुलाई मात्र नियन्त्रण गर्नुपर्नेमा सो नभइ प्रयोगकर्ताको अज्ञानता र लापर्वाहीका कारण मनोमानी विषादीको चयन गर्ने र विषादीको मात्रा मनपरी वढाएर प्रयोग गरेका कारण विषादीले लक्षित नगरिएका मानिस, जनावर, वोटविरुवा, हावा, पानी, माटो र वातावरणलाई प्रत्यक्ष असर परेको छ । नदी र तलाउको पानी विषाक्त हुँदा माछा लगयत जलचरहरुमा असर पर्नु, घाँसपात, पराल, दाना विषाक्त हुँदा घरपालुवा र जंगली जनावरहरुमा असर पर्नु, प्रकृतिक मित्रजीवहरु मर्नु वा संख्या अकस्मात घटनु, सागपात, अनाज, दूध र मासुमा विषादीको मात्रा बढी भै खान लायक नहुनु आदि विषादीका दुस्प्रभावका केही उदाहरणहरु हुन । हाल विषादीको वढदो प्रयोगले मानिसहरुमा एक्कासी पक्षघात, क्यान्सर, अधिक रक्तचाप, जन्डीस, कलेजो तथा मृगौला क्षति आदि समस्या दिनहुँ वढिरहेका छन ।

कृषि प्रणालीलाई आधुनिकीकरण गर्ने प्रक्रियासँगै रासायनिक विषादीहरुको प्रयोग गर्ने कार्यको शुरुवात विकासोन्मुख मुलुकहरुवाटै भएको पाइन्छ । नेपालमा सन् १९६० को दशकवाट शुरुवात भएको हरितक्रान्ति सँगै

वर्षेनी विषादीहरुको प्रयोग वढदै गएको पाइन्छ । नेपालमा विभिन्न किसिमका रोगहरु किराहरु, झारपात, मुसा आदिको कारणले वालिनालीको कटानी अघि र पछि गरी करीब २०–३५% सम्म वार्षिक उत्पादनमा क्षति हुने गरेको पाइएको छ । एकातिर उत्पादनको यति ठुलो हिस्सा वर्षेनी शत्रुजीवहरूबाट नोक्सान भैरहनु र अर्कोतर्फ माटोको उत्पादकत्वमा ह्रास, मौसमी परिवर्तनको प्रभावको कारण माटो, पानी र वातावरणमा दिनहुँ वढदो समस्या, जनसंख्या वृद्धि आदिको कारण देशमा विषादीको प्रयोग अनिवार्य आवश्यकता वनेको छ ।

विषादीवाट हुने फाइदाहरु (Benefits from pesticides)

१. विषादीको प्रयोगले वाली विरुवाका रोग, किरा, मुसा, झारपात आदिको समयमै नियन्त्रण भै कम खर्चमा उत्पादन वढाउन सकिन्छ ।
२. विषादीको प्रयोगले अन्नवाली भण्डारणका किराहरुको नियन्त्रण भै अनाजलाई लामो समयसम्म संरक्षण गरि राख्न सकिन्छ ।
३. विषादीको प्रयोगले वाली विरुवामा रोग सार्ने किराहरु (भेक्टर) को नियन्त्रण भै वालीलाई रोग लाग्नवाट वचाउन सकिन्छ ।
४. झारनासक विषादीको प्रयोगले वाटोघाटो, सडक किनारा, फुटवल मैदान, ठुला नहरहरु आदिको सफाइ गर्न सजिलो हुन्छ ।

विषादीहरु कसरी खानेकुरामा मिसाइन्छ (How pesticides are mixed in food materials) ?

१. ताजा तरकारीहरु जस्तैः काँक्रो, गोलभेडा, आलु, वोडी, करेला, श्याउ, अंगुर, आँप आदिमा मा अधिक विषादी प्रयोग गर्ने र अवधि नपुग्दै फल टिपेर वजारमा ल्याउने प्रचलन देखिन्छ ।
२. आलु र गोलभेडामा शीतको दवाई भनेर पौष, माघ महिनामा नियमित ४-५ दिनको फरकमा विषादी छर्ने चलन वनेको कारण विषादीयुक्त आलु गोलभेडाको उत्पादन र विक्री ।
३. च्याउमा लाग्ने भुसुना, झिंगा र ढुसीको नियन्त्रण गर्ने भनी नियमित विषादीको प्रयोग गरी विषदीयुक्त च्याउको उत्पादन गरी विक्री गरेको पाइन्छ ।
४. अधिकांश नेपाली एग्रोभेटका पसलहरुका विक्रेताहरु प्रविधिक नभएका र उनीहरुले विषादी विक्री वितरण गर्दा सो को प्रयोग गर्न उचित ज्ञान दिन नसक्दा अत्यधिक मात्राको प्रयोग भएको अवस्था छ ।
५. केही पुराना र सस्तो मूल्यका विषादीहरु सरकारी तवरवाट विक्री वितरणमा रोक लागिसक्दा पनि हाम्रो जस्तो विकासोन्मुख देशमा आयात र वितरण भैरहनु पनि एक समस्या हो ।

विषादीवाट हुने बेफाइदाहरु (Harmful effects of pesticides)

क) मानव स्वास्थमा असर (Effects on human health)

झम्झमाउने, मुटुको समस्या, कलेजोमा खराबी, मृगौला फेल हुने, क्यान्सर, मानसिक रक्तश्राव, प्यारालाइसिस, नियमित दिशा पखाला लाग्ने आदि केही विषदीको प्रभावका केही उदाहरणहरु हुन । विषादी वनाउने कारखानाका मजदुरहरु, विषादी छर्ने मानिसहरु, विषादी प्रयोग गर्ने कृषकहरुमा विषादीको बढी असर देखिन्छ । विषादी मानिसको छालाको ठीक भित्र वोसोको सेतो सतहमा गएर जम्मा भएर रहन्छ । विषको मात्रा वढदै गएपछि शरिरका विभिन्न अंगहरु जस्तैः कलेजो, मस्तिष्क, मुटु, मृगौलामा असर पार्न थाल्छ र पछि विभिन्न रोगका लक्षणहरु देखापर्न थाल्छन ।

ख) पशु स्वास्थमा असर (Effects on animal health)

मानिसमा जस्तै विषादीको असर पशुहरुमा पनि देखिन्छ । वीष मिसिएका घाँसपात, पराल, दाना, पानी आदिको उपयोगले पशुहरुमा पनि विभिन्न किसिमका रोगहरु देखापर्छन । जनावर वा मानव शरीरमा कुनै स्रोतवाट विषादीले प्रवेश गरेको खण्डमा कलेजोले विषको असर मार्न एण्टीटक्सीन रसायन निकाल्छ र विषादीको असरलाई मार्छ । यदि विषादीको नियमित सेवन बढी भएमा कलेजोको रसायनले उचित नियन्त्रण गर्न नसकी कलेजो सुनिने र पाचन रसहरु ननिकाल्ने समस्या देखिन्छ । जसबाट पशुहरुमा पखाला लाग्ने, खान मन नलाग्ने, अपच हुने, वान्ता हुने अचानक विना लक्षण मर्ने आदि समस्याहरु देखिन्छन ।

ग) खाद्यान्न, फलफुल, तरकारीमा विषादीको असर (Effects of pesticide on food crops, fruits and vegetables)

हामीले खाने खाद्यान्न, फलफुल, तरकारी, दुध, माछा, मासु, च्याऊ आदि विषाक्त भएमा प्रयोग गर्नु हुँदैन । खाद्य सामाग्रीहरुमा न्यूनतम विषादीको अवशेष र हाम्रो शरीरले पचाउन सकिने मात्रा विश्व स्वास्थ संगठनले तोके वमोजिम मात्र प्रयोग गर्नुपर्छ । यसकोलागि हरेक खाद्य सामग्रीलाई प्रयोगशालामा परीक्षण गरेमा मात्र खान मिल्ने मात्रामा विषको अवशेष भएको वा नभएको जानकारी हुन्छ नेपाली वजारमा आउने अधिकांस फलफुल, तरकारीहरु, खाध्यान्न विषादीयुक्त भएका र यिनको प्रयोशाला परिक्षण गर्ने उचित व्यवस्था हालसम्म पनि नभएका कारण प्रयोगकर्ताहरु प्रत्यक्ष रुपमा विषको शिकार वन्न पुगेका छन । विश्वमा स्ट्रवेरी, श्याउ, अंगुर, आरु, चेरी, पालुंगोको साग, केल आदिमा अत्यधिक विषादीको प्रयोग हुन्छ ।

घ) पिउने पानीमा असर (Effects on drinking water)

झारनासक विषादी, रोग तथा किटनासक विषादीहरुको अत्याधिक प्रयोग भएको खण्डमा विषादीले जमिनको सतहवाट पानी सँगै भित्र छिरेर जमिन मुनिको पानी विषाक्त वनाइदिन्छ । सो पानी पिएको खण्डमा सो दुषित पानीले असर गर्छ । विषादी सहितको पानी वगेर खोला, पोखरी, तलाउमा गइ जम्मा भएको खण्डमा जलचर जीवहरु जस्तैः माछा, भ्याकुता, गोही, सर्प आदिको स्वस्थमा प्रत्यक्ष असर पर्दछ । सो विषाक्त पानी सिञ्चाईकोलागि समेत प्रयोग गर्नु हुँदैन ।

ङ) माटोमा विषादीको असर (Effects of pesticides on soil)

झारनासक, किटनासक र रोगनासक विषादीको अत्याधिक प्रयोगले माटोमा भएका मलखाद कुहाउने ब्याक्टेरिया, ढुसीजन्य उपयोगी जीवाणुहरु, गड्यौला, कमिला, आदिको विकासमा प्रत्यक्ष असर पर्दछ । विषादीको प्रभाव बढी भएमा यी जीवहरुको संख्या घटन जान्छ । जसको कारण मलखाद कुहाउने, जमिन मलिलो वनाउने काम सुस्त हुन्छ र विरुवाले खाद्यतत्वहरु सजिलै लिन सक्दैन । अत्यधिक विषादीको कारण कोसेवालीका जरामा गाँठा वनाउने राइजोवियम नामक ब्याक्टेरियाहरुको संख्या घटन सक्छ, जसको कारण वातावरणमा भएको ७८ प्रतिसत नाइट्रोजन स्थिरिकरण गरी माटो मलिलो वनाउने काम रोकिन्छ ।

विषादीको नराम्रो असरवाट कसरी जोगिने (How can prevent from the bad effect of pesticides) ?

१. विषादीको प्रतिकूल असरको वारेमा सबै वर्ग र क्षेत्रका मानिसहरुलाई जनचेतना जगाउने ।

२. सकेसम्म विषादीको प्रयोग नै नगर्ने वां प्रांगारिक खेतीलाई जोड दिने ।

३. विषादीको प्रयोग गर्नै पर्ने भएमा सिफारिस गरिएको विषादी र सिफारिस मात्रा ख्याल गरी प्रयोग गर्ने ।

४. वाली विरुवामा प्रयोग गरेपछि पर्खनुपर्ने समय अवधिसम्म पर्खेर मात्र वाली टिप्ने ।

५. विषादी प्रयोग भएका खाद्य सामाग्रीलाई प्रयोगशालामा परिक्षण गरेर मात्र वजारमा विक्री गर्न दिने व्यवस्था मिलाउने ।

६. विषादीको ब्यापारमा सम्लग्न हुने एग्रोभेटका ब्यपारीहरु तथा कृषिकर्मी सवैलाई समय समयमा तालिमको व्यवस्था गर्ने ।

७. हाल वजारमा पाइने विभिन्न किसिमका प्रांगारिक विषादीहरुको प्रयोगमा जोड दिने ।

८. विषादी ऐन नियमको समुचित उपयोग गर्ने र गर्न लगाउने ।

उपसंहार (Conclusion)

मानव जिवनमा सहजता ल्याउन र उत्पादन वढाउन अन्नवाली, तरकारी, फलफुल, पशुपंक्षीमा प्रयोग भएका विषादीहरुको कारण वातावरण, मानव जिवन तथा पशु स्वास्थमा पर्न गएको प्रत्याक्ष असरलाई न्यून गर्न सम्वन्धित सरोकारवालाहरु समयमै सचेत भै उचित निकास निकाल्न सकेको खण्डमा विषादीको दुष्प्रयोगवाट हुन सक्ने दुर्घटनावाट समाजलाई र वातबरणलाई जोगाउने कुरामा शंका गर्ने ठाँउ रहदैन ।

(लेखक रामपुर क्याम्पस, चितवनका सह प्राध्यापक हुनुहुन्छ ।)

नेपालमा अनलाइन सिकाईका चुनौती र अवसर

शिबा थापा

परिचय

Online भन्नाले विद्युतीय सञ्जालद्वारा नियन्त्रित भन्ने हुन्छ भने online mode education भनेको बिद्युतीय साधनको प्रयोगद्वारा गरिने सिकाई हो । Online mode education लाई खुल्ला तथा दूर सिकाईको बिकासित रूप मानिन्छ जुन पूर्णरूपमा नेटवर्किङ वा इन्टरनेट सुबिधाबाट व्यवस्थित गरिएको हुन्छ (Howlett et al., 2009)। Online education लाई e-learning, virtual reality, web based instruction आदि नामबाट पनि बुभिन्छ। यसरी गरिने online education ले शिक्षामा सूचना तथा सञ्चार प्रविधिको प्रयोगमा जोड दिएको छ (Neupane, 2020)।

यस किसिमको कक्षा सञ्चालनको लागि विद्युतीय साधन (कम्प्युटर, ल्यापटप, स्मार्टफोन) को साथै राम्रो इन्टरनेटको पनि पहुँच हुनुपर्दछ । यस किसिमको शिक्षणबाट विविध कारणले प्रत्यक्ष कक्षाकोठाको पहुँचमा आउन नसक्ने तर अध्ययनको चाहना भएका व्यक्तिहरूलाई उनीहरूको इच्छा, चाहनालाई ध्यानमा राखेर कम्प्युटर, सफ्टवेयर र बनावटी शिक्षणको बिस्तार गरी सिकारु रहेकै स्थानमा शैक्षिक सामग्रीहरू उपलब्ध गराई शिक्षण गरिन्छ। यसरी विद्युतीय साधन र इन्टरनेटको प्रयोग गरी जो जहाँ छन सोही स्थानबाट सिकाइलाई निरन्तरता दिन सकिन्छ (https://www.nayapatrikadaily.com)। यसले भौगोलिक रूपबाट विकट स्थानमा रहेका, आफ्नो पेसा तथा व्यवसाय र जागिरका साथै विविध कारणले गर्दा शिक्षा प्राप्त गर्न नसक्नेहरूका लागि समेत उपयोगी हुन्छ। यस प्रणालीमा शिक्षक तथा विद्यार्थी दुबै अनलाइन, च्याटिङ्ग, भिडियो कन्फरेन्स जस्ता अप्रत्यक्ष तर एकैसाथ सिकाइमा संलग्नता रहेका हुन्छन । सिकाइमा सम्बन्धित पाठ्यक्रमका साथसाथै राष्ट्रिय तथा अन्तराष्ट्रियस्तरमा भएगरेका खोज, अनुसन्धान, अन्य सूचना तथा छलफलहरूलाई अध्ययन गर्नका लागि अनलाइनमा आधारित शिक्षा एकदमै उपयोगी छ (Kaplan & Haenlein, 2016) ।

दूर तथा अनलाइन ऐतिहासिक बिकासक्रम

अनलाइन शिक्षाको अवधारणा १७० बर्ष भन्दा पुरानो हो र यसको उत्पत्ति ग्रेट ब्रिटेनमा प्रस्तुत गरिएको पत्राचार कोर्सबाट भएको हो जहाँ प्रशिक्षकले पत्राचारमार्फत पाठ पठाए र विद्यार्थीहरूले आफ्ना कार्यहरू पुरा गरी पुनः पत्राचार मार्फत पठाए (Ferrer, 2019)। आजको अनलाइन पाठ्यक्रमहरूरकक्षाहरूलाई पनि यसैको आधुनिक संस्करणको रूपमा लिन सकिन्छ।

अनलाइन शिक्षाको इतिहास हेर्ने हो भने १८ औं शताव्दीको दशकमा विश्वविद्यालयको क्याम्पसमा हुन नसक्ने विद्याथीहरूको लागि पार्सल पोष्ट प्रयोग गरेर सुरू भयो । १९ औं शताव्दीको प्रारम्भमा, सञ्चार प्रविधिमा सुधार भयो र दूरशिक्षा रेडियो तरङ्गहरूमा लाग्यो । सन् १९१९ मा विस्कन्सिन विश्वविद्यालयका प्राध्यापकहरूले एउटा शौक्षिक रेडियो स्टेशन सुरू गरे जुन शैक्षिक प्रसारणलाई समर्पित पहिलो इजाजतपत्र प्राप्त रेडियो स्टेशन बन्यो। त्यसको लगत्तै, टेलिकोर्सको आविष्कार र पछि टेलिभिजनको आविष्कारको माध्यमबाट उच्च शिक्षामा पहुँच फेरि विस्तार गरियो। लोवा विश्वविद्यालयले १९३० को दशकमा शैक्षिक उद्देश्यका लागि टेलिभिजनको साथ प्रयोग गर्न थाल्यो । यो १९५० को दशकसम्म थिएन । जब एफसीसीले शैक्षिक उद्देश्यका लागि टेलिभिजन फ्रिक्वेन्सीहरू आरक्षित गर्न शुरू गयी, त्यो टेलिभिजनले जनताको ध्यानाकर्षण गर्‍यो। सन् १९६० मा University of Illinois ले आफ्ना विद्यार्थीका लागि इन्टरनेट बनायो जसबाट विद्यार्थीहरूले शिक्षकद्वारा पठाइएका पाठ्य सामग्रीहरूका रेकर्ड सुन्न सक्दथे । यो PLATO (Programmed Logic for Automatic Teaching Operations) मा विकसित

हुन्थ्यो । प्लेटोले विश्वभरि हजारौं टर्मिनलहरूमा परिचालन गरी social networking का धेरै अवधारणाहरू सिर्जना गरे जस्तैः message boards, chat rooms, screen sharing, and even MMORPGs (https://www.petersons.com/blog/the-history-of-online-education/)।

शिक्षाको लागि टेलिभिजनको महत्व सार्वजनिक प्रसारण कर्पोरेशन (सीपीबी) को स्थापना (सन् १९६७) द्वारा बढाइएको थियो । सीपीबीको लक्ष्य 'सार्वजनिक रेडियो र टेलिभिजन प्रसारणको बृद्धि र विकासलाई प्रोत्साहित गर्ने थियो, शिक्षाको लागि त्यस्ता मिडियाको प्रयोग सहित, शैक्षिक, र सांस्कृतिक उद्देश्य प्राप्ति गर्नु थियो । त्यसैगरी सन् १९८२ मा अनलाइन शिक्षा प्रवाह गर्ने उदेश्यले क्यालिफोर्नियाको ला जोलामा पश्चिमी व्यवहार विज्ञान संस्थानले आफ्नो स्कूल अफ मैनेजमेन्ट एण्ड स्ट्रैटेजिक स्टडीज खोल्यो । सन् १९८४ मा Electronic University Network (EUN) ले कलेज र विश्वविद्यालयहरूलाई अनलाइन पाठ्यक्रमहरूको उपलब्धता विस्तार गर्न सहयोग पुऱ्याउने उदेश्यका साथ स्थापना गरिएको र EUN ले १९८६ मा DOS / Commodore 64 कम्प्युटरहरूको प्रयोगको लागि पहिलो अनलाइन पाठ्यक्रम प्रस्ताव गरेको थियो (Ferrer, 2019) । जुन World Wide Web को आविष्कार हुनुअघिको कुरा हो । विद्यार्थीहरूले आफ्नो स्वामित्वमा सफ्टवेयर प्रयोग गरी टेलिफोन लाइनहरूमा कुराकानी गर्नुपरेको थियो ।

स्कुलले कम्प्युटर कन्फरेन्सी employed प्रयोग गरी व्यावसायिक कार्यकारीहरूलाई दूरशिक्षा कार्यक्रम पुऱ्यायो । सन् १९८९ मा फिनिक्स विश्वविद्यालयले इन्टरनेटको माध्यमबाट शिक्षा कार्यक्रमहरू दिन शुरू गऱ्यो । सन् १९९२ मा EUN ले अमेरिका अनलाइनसँग मिलेर उच्च शिक्षा समन्वयकको रूपमा काम गर्न शुरू गरेको थियो । सन् १९९३ मा इलिनोइस विश्वविद्यालयले सिर्जना गरेको पहिलो इन्टरनेट वेब ब्राउजरको प्रयोग ल्याउना साथ अनलाइन शिक्षा फस्टाउन थाल्यो । सन् १९९४ मा अमेरिका अनलाइन, डेल्फी, कम्प्युसर्भ र अन्य स्थानीय इन्टरनेट प्रदायकहरूको होस्ट जस्ता कम्पनीहरूको साथ इन्टरनेटको पहुँच विस्फोट भएको थियो जब व्यक्तिहरूको घरहरूमा रहेको डेस्कटप कम्प्युटरलाई विन्डोजमा रूपान्तरण गरी इन्टरनेटको प्रयोग गरेर पहुँचका साथ धेरै व्यक्तिले पहिले सानो, अफलाईन वयस्क शिक्षा केन्द्रलाई CAL क्याम्पस को रूपमा मा विकसित हुन अनुमति दियो, जसलाई अहिले हामीले इन्टरनेटद्वारा सञ्चालित अनलाइन् को रूपमा चिन्छौं । सन् १९९७ मा California Virtual University (CVU) ले मान्यता प्राप्त क्यालिफोर्निया कलेज र विश्वविद्यालयहरूबाट उपलब्ध सबै अनलाइन पाठ्यक्रमहरूको जानकारी प्रदान गर्न clearing house को रूपमा स्थापित गरी अनलाइन शिक्षाका अवसरहरूको बारेमा जानकारी प्रदान गर्ने अनलाइन संसाधनहरूलाई प्रोत्साहित गरेको थियो (https://www.petersons.com/blog/the-history-of-online-education/) ।

सन् १९९८ मा, न्यूयोर्क युनिभर्सिटी अनलाइन, पश्चिमी गभर्नर युनिभर्सिटी, क्यालिफोर्निया भर्चुअल युनिभर्सिटी र ट्राइडेंट युनिभर्सिटी इन्टरनेसनल मा पहिलो पूर्ण अनलाइन कार्यक्रमहरु स्थापना भए । सन् २००० मा ८५ मात्र विद्यार्थीहरू अनलाइन कोर्षमा भर्ना भएका थिए । तर सन् २००८ सम्ममा भर्ना संख्या २०५ सम्म बढेको थियो । ओपनकोर्सवेयर परियोजनामार्फत एमआईटीले सन् २००२ मा आफ्नो ओपनकोर्सवेयर प्रोजेक्ट मार्फत व्यख्यान र पाठ्य सामग्रीहरू अनलाइनबाट विश्वका सम्पूर्ण व्यक्तिहरूलाई अधिकांश सामग्रीहरू निशुल्क रूपमा प्रदान गर्ने लक्ष्यका साथ सबै MIT कोर्सहरूको लागि यी सामग्रीहरू प्रस्ताव गरेको थियो र सन् २०१० सम्म एमआईटीले २००० भन्दा बढी स्नातक र स्नातक कोर्स अनलाइन (स्रोत) को लागि सामग्री प्रस्ताव गरेको थियो (सुवेदी, २०७७) ।

सन् २००९ ताका अनलाइन कक्षा लिने विद्यार्थीहरूको संख्या पूरै १८७ प्रतिसतले बढ्यो, र विश्वव्यापी रूपमा करिब ५.५ लाख विद्यार्थीहरूले कम्तिमा एक कक्षा अनलाइनमार्फत लिइरहेका थिए । यसबाहेक, परम्परागत विश्वविद्यालयहरूले अनलाइन कोर्सहरूको संख्या मात्र नभएर अनलाइन उपलब्ध सम्पूर्ण डिग्री प्रोग्रामहरूको संख्या

बिस्तार गर्न थाले । वि. सं. २००९ पछि अमेरिकादेखि विश्वमा अन्य विकसित मुलुकको शैक्षिक विभागले अनलाइन शिक्षालाई प्राथमिकताको साथ अघि बढायो । सन् २०१३ को अन्त्यसम्ममा सबै पोस्टसेकेन्डरी विद्यार्थीहरू मध्ये करिब ३०५ विद्यार्थीहरू कुनै न कुनै दूर शिक्षा पाठ्यक्रममा भर्ना भएका थिए यद्यपि अनलाइन कोर्ष र कार्यक्रम पुरा हुने डाटा जटिल छ । अनुसन्धानकर्ताहरूले परम्परागत फेस टू फेस कोर्ष गर्नेहरूको तुलनामा अनलाइन पाठ्यक्रमहरूमा भर्ना भएका विद्यार्थीहरूको आकर्षण दर २०५ देखि ५० प्रतिशतसम्म बढी पाइएको उल्लेख गरेको छ **(https://www.petersons.com/blog/the-history-of-online-education/)** । यसरी विकासित हुँदै आएको अनलाइन शिक्षा आज एक उपयोगी र प्रभावकारी माध्यमको रूपमा विश्वभर सञ्चालन हुँदै आएको छ । विं.सं २०१९ को एक अनुमानको अनुसार विश्वमा करिब २ करोड विद्यार्थीहरु अनलाइन शिक्षाको सेवा प्राप्त गर्न सफल भएका छन् । वर्तमान समय (सन् २०२००) मा समग्र विश्व कोरोनाभाइरस महामारीबाट गुज्रिएको परिपेक्षमा विश्वका थुप्रै विश्वविद्यालयहरुले परम्परागत फेस-टू-फेस कोर्षको सट्टा हतार-हतारमा अनलाइन कक्षाहरु चलाउन सुरु गरेका छन् Agarwal and Kaushik (10 April 2020)।

कोरोना (COVID-19) को महामारी र नेपालमा अनलाइन शिक्षाको महत्व

सन् 2019 को डिसेम्बरमा चीनको वुहानमा देखा परेको COVID-19 महामारीले आज विश्व नै आक्रान्त बनेको छ । जुन रोगको न त आजसम्म कुनै औषधी नै बनेको छ न त कुनै खोप नै, अहिलेको अवस्थामा जसको एकमात्र उपाय सामाजिक दुरी कायम गर्ने, सभा सम्मेलनमा तथा कुनैपनि किसिमको समारोहमा भाग नलिने, भीडभाडबाट टाढै रही आफ्नो स्वास्थ्यको ख्याल राख्नु हो । यस्तो अवस्थामा मानिसहरू अत्यावश्यक काममा निस्कदा पनि उच्च सतर्कता अपनाएर हिड्नुपर्ने बाध्यता छ । नेपाल सरकारले २४ मार्च बाट २१ जुलाई सम्म देशव्यापी रूपमा लकडाउन गर्ने घोषणा गऱ्यो भने मार्च १९ बाट नै औपचारिक रूपमा शैक्षिक संस्थाहरू बन्द गर्ने घोषणा गरेसँगै करिब ८.२ मिलियन भौतिक कक्षाकोठाबाट टाढा रहन पुगेका छन् UNESCO (2020) ।

अहिले देशभर लकडाउनको अवस्था छ जसको कारण प्रायः शिक्षक तथा विद्यार्थी आफ्नो गाउँघरमा फर्किएका छन् र शहरबजार तथा गाउँमा बस्ने सम्पूर्ण मानिसहरू पनि आफ्नै घर, कोठा तथा निश्चित स्थानमा सिमित हुनुपरेको कारण भौतिक रूपमा बिधालयबाट टाढा छन् भने सम्पूर्ण शैक्षिक संस्थाहरू पनि अनिश्चितकालका लागि बन्द भएका छन् । जसले गर्दा शिक्षक तथा विद्यार्थी परम्परागत कक्षाकोठामा उपस्थित भएर शिक्षणसिकाई कार्यमा संलग्न हुन नसकेको अवस्थामा देशको शैक्षिक क्षेत्रमा परेको संकटलाई कम गर्न, शिक्षक, विद्यार्थी र विद्यालयबीचको दुरी कम गराउन र शिक्षालाई निरन्तरता दिनका लागि Online mode education एकदमै उपयोगी र आवश्यक छ (तिमिल्सना, २०७७)।

यसैगरी कोरोना महामारी बढ्दै जाने हो र लकडाउन हुँदै जाने हो भने विद्यालय खुल्ने अवस्था रहदैन र यसरी सम्पूर्ण शिक्षक विद्यार्थी घरमा बस्दा अध्ययन अध्यापन कार्य हुन सक्दैन जसको फलस्वरूप शैक्षक सत्र खेर जानुको साथै लाखौं विद्यार्थीको जीवन नै अन्धकार हुने भएकाले यस्तो अवस्थामा परम्परागत शिक्षण पद्वतिलाई नै पर्खिएर बस्नुभन्दा आफूसँग भएको स्रोत र साधनको उपयोग गरेर बैकल्पिक शिक्षण पद्वति अपनाउनु पर्ने हुन्छ । आजको समयमा बैकल्पिक शिक्षण पद्वतिको रूपमा Online mode education नवीन र प्रभावकारी तरिका हो जसबाट शिक्षक तथा विद्यार्थी कम्प्युटर तथा इन्टरनेटको माध्यमबाट अनलाइन कक्षा सञ्चालन गरेर शिक्षण सिकाईलाई निरन्तरता दिन सक्छन् (तिमिल्सना, २०७७) । अनलाइन कक्षा मार्फत परम्परागत कक्षाकोठामा जस्तै विचार आदाप्रदान, प्रस्तुतिकरण, गृहकार्य तथा परियोजना कार्य तथा आवश्यक पृष्ठपोषण समेत दिन सकिन्छ । प्रविधिलाई व्यवस्थित गर्न सके अनलाइन कक्षा मात्र होइन अनलाइन परीक्षा समेत लिन सकिन्छ जसको प्रयोग नेपालका केही विश्वविद्यालयहरु जस्तै काठमाण्डौ विश्वविद्यालय र नेपाल खुला विश्वविद्यालयहरुले सँचालनमा ल्याएका छन् Acharya et al. (2020)।

अनलाइन शिक्षाको औचित्य

शिक्षा प्राप्त गर्न इच्छा भएको तर भौगोलिक रूपमा बिकटता तथा आफ्नो कार्यव्यस्तता जस्तै व्यापार, व्यवसाय, रोजगार, आदिको कारण भौतिक रूपमा विद्यालय तथा विश्वविद्यालयहरुमा उपस्थित भई अध्ययन गर्न नसक्ने विद्यार्थीहरुको लागि यस किसिमको सिकाइ एकदमै उपयोगी हुन्छ । नेपालको सन्दर्भमा उच्च शिक्षाको लागि गाउँगाउँसम्म अझ पहुँच पुग्न नसकेको अवस्था र कैयौ विद्यार्थीहरुलाई रोजगारी गर्नुपर्ने बाध्यताका कारण उच्चशिक्षाको अबसरबाट वञ्चित हुनुपरेको यथार्थता छ । राष्ट्रिय तथा अन्तराष्ट्रिय संकटको समयमा मात्र नभइ नेपाल जस्ता विकशिल देशहरुमा उच्चशिक्षाको लागि अनलाइन शिक्षाको अपरिहार्यता बढेको छ जसबाट आर्थिक, भौगोलिक तथा व्यवसायिक कारणले अवरुद्ध भएको शिक्षालाई निरन्तरता दिन सकिन्छ । एक अध्ययनको निष्कर्ष अनुसार नेपालका स्नातकोत्तर तहमा अध्ययन गर्ने बहुसंख्याक विद्यार्थीहरु कोरोनाको कहर पश्चात पनि अनलाई कक्षालाई निरन्तरता दिन चाहन्छन् (Neupane, 2020)।

अनलाइन शिक्षाका सबल पक्षहरू

अनलाइन शिक्षा लचिलो किसिमको हुने भएकोले आफ्नो फुर्सदको समयको सदुपयोग गरी अध्ययन गर्न सकिन्छ । यस किसिमको सिकाइमा विधार्थीलाई बढी स्वतन्त्रता हुन्छ । उनीहरू आफैंले बेवसाइटमा विभिन्न सिकाइ सामग्रीहरू खोजी स्वःअध्ययन गर्न सक्छन भने आफ्ना सिकाइमा कुराहरूलाई घरैमा बसेर साथी तथा शिक्षकहरूसंग साटासाट गरी सिकाइ क्रियाकलाप अगाडि बढाउन सक्दछन । यो परम्परागत कक्षाकोठाको व्यवस्थापन भन्दा राम्रो र व्यवहारिक हुन्छ । यसमा आधुनिक सुचना प्रविधका विभिन्न साधनको प्रयोग हुने भएकाले सिकाइ रूचिकर, आकर्षक र दिगो हुन्छ । यस प्रणालीमा उच्चकोटीका बिषय बिशेषज्ञहरू हुन्छन र सिकारूका लागि प्रदान गरिएका सुबिधाहरू चौबिसै घण्टा सिकारु समक्ष उपलब्ध हुने भएकाले सिकारूले आफ्नो आवश्यकता अनुसार अध्ययन गर्न सक्छन् (Kaplan & Haenlein, 2016)। अनलाइन शिक्षामा बिज्ञहरूलाई स्थायी रूपमा नराखी बिशेष परिस्थिति र समयका लागि पनि नियुक्ति गर्न सकिने भएकाले शिक्षण संस्थाहरुलाई कम आर्थिक भार पर्दछ ।

अनलाइन शिक्षामा शिक्षक एक सहजकर्ताको रूपमा रहने, विद्यार्थी आफैले बुझेर पढ्नुपर्ने भएकाले तल्लो तहभन्दा पनि उपल्लो तहका विद्यार्थीको लागि बढी प्रभावकारी हुन्छ । यो विद्यार्थीकेन्द्रित हुन्छ । अनलाइन शिक्षाले विद्यार्थीहरुलाइ प्रविधिको प्रयोगमा पोख्त बनाउन मद्दत गरी अन्तर्राष्ट्रिय स्तरको जनशक्ति उत्पादनमा सहयोग गर्न सक्छ । यसको प्रमुख फाइदा भनेको आफूलाइ उपयुक्त समय तथा स्थानमा बसी आफ्नो रुचिका बिषयको अध्ययन गर्न पाउनु हो ।

अनलाइन शिक्षाका चुनौतीहरू

अनलाइन शिक्षा एक प्रविधिको प्रयोग गरी सञ्चालन गरिने भएकोले यसका लागि सम्पूर्ण शिक्षक तथा विद्यार्थीहरूमा सूचना तथा प्रविधि सम्बन्धी प्रयोगात्मक ज्ञान हुनु जरूरी हुन्छ, यसका साथै सिकाइ क्रियाकलापमा सहभागी हुन चाहने सबैसँग अनिवार्य रूपमा सिकाइका लागि आवश्यक सामग्री (कम्प्युटर, ल्यापटप, मोबाइल, र इन्टरनेट) पहुँच हुनुपर्छ । जुन आर्थिक रूपले महंगो पर्न जान्छ, जसका कारण सबै विद्यार्थीहरू उक्त साधन खरिद गर्न नसक्ने हुँदा शिक्षामा समावेशीकरण गर्न सकिँदैन Acharya et al. (2020)।

कतिपय ग्रामीण क्षेत्र जहाँ विजुली बत्ती पुगेको छैन उक्त स्थानमा अनलाइन कक्षा सञ्चालन गर्न सकिँदैन र जहाँ वाईफाईको सुबिधा छैन त्यस क्षेत्रका विधाथीहरूलाई डाटाबाट कक्षा लिनको लागि महङ्गो पर्छ । कमजोर नेटवोर्क भएको क्षेत्रमा डाटाबाट कक्षा लिन पनि असम्भव हुने भएकाले सबै स्तरका विद्यालय तथा घरपरिवारसँग

यस प्रकारको सुबिधा नभएकाले अनलाइन शिक्षालाई एक शहरकेन्द्रित सिकाइको रूपमा लिन सकिन्छ । अर्कोतर्फ नेपालमा रहेको लोडसेडिङको समस्याको कारणले कक्षाहरू सञ्चालन हुदाहुदै बिचमा नै छुट्ने हुँदा सिकाइमा निरन्तरता नहुने हुँदा सिकारूले पढाइ प'रा नगरी छोड्ने सम्भावना बढी हुन्छ ।

अनलाइन कक्षामा परम्परागत कक्षाजस्तो भौतिकरूपमा अन्तरक्रिया गर्न कठिन हुन्छ जसले गर्दा कहिलेकाहीँ शिक्षकले एकोहोरो शिक्षण गराईरहँदा विद्यार्थीहरुलाई दिक्दार लाग्ने भएकोले सिकारु कक्षामा उपस्थिति मात्र जनाएर अन्य कामतर्फ लाग्न सक्छन, फलस्वरूप विषयवस्तुलाई बुझ्न कठिन हुन्छ (सुवेदी, २०७७) । विद्यार्थीलाई दिइएका गृहकार्यहरू पनि गुगल र बेवसाइटबाट खोजेर नक्कल गर्ने सम्भावना बढी भई उनीहरूको सिर्जनशीलतामा कमी आउँछ । यसैगरी अनलाइन कक्षामा विद्याथीहरू घरमै बसेर एकान्तमा पढ्ने बानीले पछी उसलाई ठूलो समूहमा आफुलाई प्रस्तुत गर्न र घुलमिल हुन गाह्रो हुन्छ र कक्षाकोठामाझैं विद्यार्थीले शिक्षकसँग प्रश्नोत्तर गर्न कठिन हुनु, साथीहरु एकआपसमा ज्ञान आदन प्रदान कम हुनु यसका चुनौतीहरु हुन सक्छन् (सुवेदी, २०७७) ।

समग्रमा नेपालजस्तो कम विकसित देशमा अझै पनि १८.७५ प्रतिसत जनसंख्या निरपेक्ष गरिबीको रेखामुनि छन । त्यस्तै २८.६५ प्रतिसत जनसंख्या बहुआयामिक गरिबीमा छन । उच्चस्तरीय शिक्षा आयोगको प्रतिवेदन अनुसार देशभरका सामुदायिक सरकारी विद्यालय मध्ये १२.५ प्रतिसत विद्यालयमा कम्प्युटर पुगेको छ, ३५.५प्रतिसत विद्यालयमा विद्युतको सुविधा छ भने १३.५ प्रतिसत विद्यालयमा इन्टरनेटको सुविधा छ । वि.सं. २०६८ मा केन्द्रीय तथ्यांक विभागले गरेको जनगणना अनुसार नेपालमा ७.३५ प्रतिसत घरपरिवारसंग कम्प्युटर छ, ६५.५ प्रतिसतले मोबाइल फोन प्रयोग गर्छन (केन्द्रित तथ्यांक विभाग, २०६८) । निजी शैक्षिक संस्थामा पनि २५.५ प्रतिसत विद्यार्थी अनलाइन शिक्षा लिन नसक्ने अनुमान गरिएको छ भने उच्चशिक्षा अध्ययन गर्ने ३० प्रतिसत विद्यार्थी इन्टरनेटबाट अनलाइन कक्षामा सहभागी हुन सक्दैनन । कम्प्युटर र स्मार्टफोन भएको जनसंख्यामा इन्टरनेटको सामान्य पहुँच भएपनि त्यसको व्यान्डविथ र क्वालिटी अफ सर्भिस सूचना मन्त्रालयको न्यूनतम मापदण्ड अनुसारको छैन । त्यसैले ग्रामीण भेगका कयौं ठाँउमा यो उपयुक्त देखिदैन । आजपनि कतिपय ठाँउमा वाईफाईको मात्र होइन टेलिकमको टावर नटिप्ने र डाटा राम्ररी नचल्ने समस्या छ र प्रबिधिको विकास पनि कम भएको कारण नेपालमा समाबेशी रूपमा अनलाइन कक्षा सञ्चालन गर्नु एक चुनौतीको रूपमा रहेको छ (सुवेदी, २०७७) ।

अनलाइन शिक्षाप्रति मेरो अनुभव

एक स्नातकोत्तर तहमा अध्ययनरत विद्यार्थीको रुपमा COVID-19 को संकटमा विगत चार महिनादेखि मैले नियमित अनलाइन कक्षामा सहभागि भइरहेको छु । मैले संसारमा भएका विविध गतिविधिको बारेमा जानकारी प्राप्त गर्न, मनोरञ्जन तथा आफ्नो सिकाइका क्रममा अनुभव गरेको समस्यालाई समाधान गर्नका लागि सूचना प्रविधि (मोबाइल तथा इन्टरनेट) को प्रयोग गर्दै आएको भए पनि यस अगाडि अनलाइन कक्षा भने लिएको थिइन । रोजगारीको सिलसिलामा अध्ययनरत क्याम्पसबाट टाढा रहेको अवस्थामा नियमित कक्षामा उपस्थित हुन नसक्ने म जस्ता धेरै विद्यार्थीहरुको अवस्थालाई अनलाइन कक्षाले सहज बनाइदिएको छ । अंग्रेजी शिक्षामा स्नातक मेरो रुचि स्नातकोत्तर तह पनि अंग्रेजीमा नै गर्ने थियो तर त्यस समयमा अनलाइन कक्षा संचालन नभएको अवस्था र रोजगारीका कारण घरबाट टाढा जान नसक्ने अवस्थाले मैले स्थानीय क्याम्पसमा संचालित समाजशास्त्र विषयमा अध्ययन शुरु गरेको थिए । अहिले मलाई के महसुस भएको छ भने यदि अनलाइन कक्षाको अबसर पाएको भए आफ्नो चाहनाको विषय म घरमा वा कार्यस्थालमा नै बसेर पुरा गर्ने थिए । यो अनुभब म जस्ता कैयौं साथीहरुको हुन सक्छ ।

वर्तमान कोरोन कहरमा अन्य गतिविधिहरु प्राय ठप्प भएपनि अनलाइन कक्षाका माध्यमबाट हामी आफ्नो अध्ययनलाई अगाडि बढाइरहेका छौ । लामो समयको लकडाउनको कारणले शैक्षिक सत्र नै अस्तव्यस्त हुन सक्ने अवस्थामा अनलाइन कक्षाले हाम्रो शैक्षिक सत्रलाई नियमित गरिदिएको छ । यसरी सञ्चालन गरिएको अनलाइन कक्षामार्फत शिक्षक तथा सिकारु दुबै अनलाइन, च्याटिङ्ग, भिडियो कन्फरेन्स जस्ता अप्रत्यक्ष तर एकैसाथ Virtual Classroom को माध्यमबाट शिक्षण कार्य हुने भएकाले वास्तविक कक्षाको जस्तै अनुभव भएको छ । अनलाइनमार्फत आवश्यक सिकाइ सामग्रीहरू शिक्षकहरूले उपलब्ध गराइदिने भएकाले उक्त सामग्री आफ्नो फुर्सदको समयमा अध्ययन गर्न, अन्य सामग्रीहरू पनि आफैले गुगलबाट खोजी गरी अध्ययन गर्न सजिलो भएको छ भने शिक्षकले दिनुभएको गृहकार्य पनि आफू रहेकै स्थानबाट पूरा गरी इमेलबाट नै पठाउन सकिने र आवश्यक पृष्ठपोषण पनि इमेलमार्फत नै प्राप्त गर्ने भएकाले यसले सिकाइमा एकदमै सहयोग गरेको अनुभुति भएको छ । साथै आफूसँग भएका सिकाइ सामग्रीहरू पनि इन्टरनेटको माध्यमबाट साथीहरूबीच आपसमा साटासाट गरी अध्ययन गर्न सकिने भएकाले अनलाइन शिक्षा म लगायत म जस्ता पढ्न इच्छा भएका तर भौतिक रूपमा शिक्षण संस्थाहरुबाट टाढा रहेका सिकारूको लागि प्रभावकारी विकल्पको रूपमा पाएको छु । मेरो अनुभवमा स्नातकोत्तर तहको कक्षा यो संकटपछि पनि अनलाइन कक्षाका माध्यमबाट निरन्तर हुन सके म जस्ता ठूलो संख्याका विद्यार्थीहरु जो प्रत्यक्ष कक्षामा उपस्थित हुन सक्दैनन् उनीहरुको लागि उपयोगी हुने तथा शिक्षण संस्थामा पनि विद्यार्थी संख्यामा बढोत्तरी हुने थियो ।

अनलाइन शिक्षाको धेरै सुविधा र फाइदा हुँदाहुदैपनि आफू बस्ने स्थानमा वाईफाई को सुविधा नभएको कारणले डाटा बाट अनलाइन कक्षा लिदा महंगो पर्ने हुदा एकातर्फ आफू आर्थिक मारमा पर्नुको साथै Low network को कारणले शिक्षकले पढाएको स्पष्ट रूपमा नबुझिने भई बिचैमा कक्षाबाट बाहिरिनु पर्ने बाध्यता रहेको, विद्युतीय अध्ययन सामग्री तथा गृहकार्य डाउनलोड गर्न कठिन भएको छ भने अर्कोतर्फ शिक्षकहरू पनि वाईफाईबाट कक्षा सञ्चालन गर्ने र उहाँहरूसंग बैकल्पिक इन्टरनेट सुविधा नहुँदा लोडसेडिङको कारणले कहिलेकाहीँ सिकाइमा अबरोध सिर्जना हुने अवस्था रहेको छ ।

निष्कर्ष

कुनै पनि नयाँ कुरा सुरु गर्दा कि त ठूलो इच्छाशक्ति चाहिन्छ कि त बाध्यता । नेपालमा अहिले अनलाइन शिक्षा बाध्यताको रूपमा प्रस्तुत भएको छ । लकडाउनको कारण शिक्षा क्षेत्र ठप्प भएपछि शिक्षा मन्त्रालयले शिक्षामा बैकल्पिक विधिको रूपमा रेडियो तथा टेलिभिजनमार्फत विभिन्न कार्यक्रमहरू मार्फत सिकाइ सहजीकरण गरिरहेको छ भने केही निजी तथा सामुदायिक विद्यालय र विश्वविद्यालयहरुले पनि अनलाइन शिक्षा सञ्चालन गरिरहेका छन् जुन कदम एकदमै प्रसंशानीय छ । तर भौगौलिक विकटता, पारिवारिक आर्थिक अवस्था, सूचना तथा प्रविधिमा पहुँचको कमी, विद्यार्थी तथा शिक्षकहरुमा Digital literacy को अभाव आदिको कारण यसको प्रभावकारितामा प्रश्नहरु उठ्ने गरेका छन् । सूचना र संचारमा आवश्यक विकास गर्न नसकेका नेपाल जस्ता कम विकसित राष्ट्रहरुले आवश्यक पूर्वाधार निर्माण गरी अनलाइन शिक्षाको पहुँचलाई ग्रामीण तहसम्म पुऱ्याउनसके उच्चशिक्षाको अवसर ठूलो जनसंख्यासम्म पुग्न सक्ने थियो । नेपालले यसलाई एउटा अबसरको रुपमा विकास गनुपर्दछ । अनलाइन माध्यमबाट नेपालका ग्रामीण क्षेत्रका जनताहरुले पनि देश विदेशका प्रसिद्ध विश्वविद्यालयहरुबाट डिग्री हाँसिल गर्ने, सीप तथा तालिम लिने र आफ्नो ज्ञान तथा सीपलाई अन्तराष्ट्रिय स्तरसम्म पुऱ्याउन सक्ने अबसर प्राप्त गर्न सक्छन् । शिक्षालाई अन्तराष्ट्रियकरण गर्न अनलाइन माध्यमले सहज बनाउन सक्छ ।

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अनुसन्धान प्रतिवेदन लेखन (Writing Research Report)

सन्तोष उप्रेती

परिचय (Introduction)

अनुसन्धानको अन्तिम चरणमा अनुसन्धान प्रतिवेदन लेखन कार्य गरिन्छ । अनुसन्धान प्रतिवेदन पश्चात मात्र अनुसन्धान कार्य सम्पन्न हुन्छ । बैध अनुसन्धानका प्रत्येक चरणको समान महत्व रहेको हुन्छ । अनुसन्धान प्रतिवेदन लेखन कार्य गर्दा यदि कुनै एक चरणमा केही कमजोरी भयो भने त्यसले सम्पूर्ण अनुसन्धानको गुणात्मक स्वरुपलाई समेत प्रभाव पार्दछ । अनुसन्धान प्रतिवेदनले अनुसन्धानको बिधि, प्रक्रिया, प्राप्ति एबं निष्कर्ष र उपयोगितालाई पाठक एवम् अध्येता र सुपरिवेक्षक सम्म पुऱ्याउने हुनाले प्रतिवेदन लेखन कार्यलाई महत्वपर्ण मानिन्छ । तसर्थ अनुसन्धानकर्ताले अनुसन्धान प्रकृयाका सम्पूर्ण अनुभवहरु, आफूले उठान गरेको समस्याको पहिचान, परिकल्पना निर्माण, प्रमाणिक तथ्याङकहरु र तथ्याङकको ब्याख्या एबं विश्लेषण, परिकल्पना परीक्षण, अनुसन्धानका प्राप्तिहरु तथा निष्कर्षहरु समेतलाई समावेश गरी तयार गरिएको व्यवस्थित दस्तावेजलाई अनुसन्धान प्रतिवेदन भनिन्छ (Kaul, 2000)।

प्रतिवेदनको उद्देश्य भनेको अनुसन्धानकर्ताले आफ्नो अनुसन्धानको बारेमा मात्र जानकारी प्राप्त गर्ने नभई सम्बन्धित क्षेत्रमा चासो राख्ने सबैका लागि अनुसन्धानका क्रममा के के गरियो, किन गरियो, के परिणाम प्राप्त भए, कस्ता निष्कर्ष प्राप्त भए, जस्ता सवालहरुको सम्बन्धमा समेत जानकारी गराउनु हो । अनुसन्धान प्रतिवेदनले सञ्चारको साधनको काम समेत गर्दछ जसले अनुसन्धानबाट प्राप्त निष्कर्षलाई सम्बन्धित पाठक समक्ष पुऱ्याउन सहयोग गर्दछ । यो अनुसन्धान प्रकृया र त्यसले नतिजा सम्बन्धी जानकारी दिने औपचारिक वाक्यांश हो (A research report is a formal statement of a research process and its result (Krishnaswami, 1999)।

अनुसन्धान प्रतिवेदन उत्कृष्ट नभएमा अनुसन्धानका लागि गरिएको लगानी र मेहनतको अर्थ नरहने हुन्छ । Burns (1994) को शब्दमा “Extremely valuable and interesting pratical work may be spoiled at the last minute by a student who is not able to communicate the results easily.” त्यसैगरी अनुसन्धान कार्यमा प्रतिवेदनलाई अध्येताहरुको दक्षता परीक्षण गर्ने मापदण्डका रुपमा लिइन्छ (Kerlinger, 1986)।

अनुसन्धान प्रतिवेदनको गुणस्तर अनुसन्धानकर्ताको अनुसन्धान पद्धतिका विषयबस्तुका सम्बन्धमा भएको ज्ञान, सीपका अतिरिक्त लेखन, सञ्चार सीप तथा चिन्तनको स्पष्टता, चिन्तनहरुलाई तार्किक एवं चरणबद्ध तरिकाबाट अभिव्यक्त गर्ने क्षमता, बिषयबस्तुको क्षेत्र र यसको ज्ञान आदिमा निर्भर रहन्छ । तसर्थ अनुसन्धान प्रतिवेदन पाठकले बुझ्नेगरी सरल, स्पष्ट र उपयुक्त भाषिक शब्दावली प्रयोग गरी लेख्नु पर्दछ तथापि अनुसन्धान प्रतिवेदनलाई सम्पूर्ण कोणबाट समेटेर प्रस्तुत गर्ने कार्य सजिलो भने छैन । यसका साथै अनुसन्धान प्रतिवेदन लेखनका शैली एबं ढाँचाहरु बिभिन्न बिश्वबिद्यालय, संघसंस्था एवम् बिषय अनुसार फरक फरक हुने भएकोले अनुसन्धान प्रतिवेदन लेखनलाई जटिल कार्य मानिन्छ । मूलतः हाल प्रचलनमा रहेका अनुसन्धान प्रतिवेदन लेखनका लागि बिभिन्न निकायहरुले बिभिन्न प्रणाली एबं संरचनाहरु विकास गरेका छन् । ती मध्ये अमेरिकी मनोवैज्ञानिक संघको ढाँचा (American Psychological Association Format–APA Format), हार्वर्ड प्रणाली (The Harvard system), आधुनिक भाषा संघको संरचना (The Modern Languages Association Format–MLA Format), जस्ता अनुसन्धान प्रतिवेदन लेखनका संरचनाहरु प्रचलनमा रहेका छन् । Khanal (2062 B.S.) का अनुसार सामान्यतया अनुसन्धान प्रतिवेदन लेखन कार्य गर्दा निम्न अनुसारका बिषयवस्तुहरु समावेश गर्न उपयक्त मानिन्छ ।

- अनुसन्धानको परिचय र समस्याको बारेमा उल्लेख गरिएको हुनुपर्दछ ।
- परिचय र विश्लेषणको सारांश प्रस्तुत गर्नपर्दछ ।
- अध्ययन विधि वा तथ्याङ्क संकलन र बिश्लेषण गर्ने पद्धतिको चर्चा गरिएको हुनुपर्दछ ।
- के कस्ता विवरणहरु प्राप्त भए र अनुसन्धानको नतिजा कस्तो रह्यो भन्ने विवरण उल्लेख गर्नुपर्दछ ।
- सन्दर्भ सामग्रीहरु वणानुक्रम अनुसार राखिएको हुनुपर्दछ ।
- पारिभाषिक शब्दावली र महत्वपूर्ण शब्दसूची समावेश गर्नुपर्दछ ।
- अनुसूचीमा तालिका समावेश गर्नुपर्दछ ।

प्रतिवेदनको आधारभूत खाका (Essential outline of research report)

अनुसन्धानको पूर्णताको लागि यसको प्रतिवेदन लेखन कार्य निश्चित ढाचामा आधारित हुनुपर्दछ । अनुसन्धान प्रतिवेदनका बिभिन्न आबश्यक तत्वहरुको उपर्युक्त किसिमबाट प्रस्तुतिकरण भएन भने अनुसन्धान जतिसुकै प्रभावकारी भएतापनि त्यसको गुणस्तमा प्रभाव पर्दछ । त्यसैले अनुसन्धानकर्ताले सम्बन्धित संस्था, विश्वविद्यालय, विभाग आदिले स्वीकृत गरेको अनुसन्धान प्रतिवेदनको ढाँचालाई राम्रोसंग अध्ययन गरेको हुनुपर्दछ । हाल प्रचलनमा रहेको अनुसन्धान प्रतिवेदनलाई मूल रुपमा ३ भागमा वर्गीकरण गरिएको पाइन्छ (Faculty of Education, 2014) ।

क) प्रारम्भिक खण्ड (Preliminary section)
ख) मुख्य खण्ड (Preliminary section)
ग) सन्दर्भ खण्ड (Reference section)

क) प्रारम्भिक खण्ड (The preliminary section)

अनुसन्धान प्रतिवेदनको सबैभन्दा पहिलो र शुरुको खण्ड हो । यस खण्डमा शीर्षक पृष्ट (Title page) सिफारिस पत्र (Recommendation letter), स्वीकृत पत्र (Approval letter), कृतज्ञता ज्ञापन (Acknowledgement), प्राक्कथन (Preface), शोधसार (Abstract), विषयसूचि (List of content), तालिका सूचि (List of tables), चित्रहरुको सूचि (List of figures), सङक्षिप्त रुप (Abbrevation) पर्दछन् (APA, 2010) । प्रारम्भिक खण्डले अनुसन्धान प्रतिवेदनको मूल खाकाको प्रतिनिधित्व गर्ने र सार संक्षेप समेत उल्लेख गर्ने हुनाले यस खण्ड महत्वपूर्ण मानिन्छ । यी उल्लेखित तत्वहरुलाई अनुसन्धान प्रतिवेदनमा प्रस्तुतिकरण गर्ने तरिकालाई निम्नानुसार उल्लेख गर्न सकिन्छ ।

शीर्षक पृष्ट (Title page)

शीर्षक अनुसन्धान प्रतिवेदनको पहिलो पृष्ठ हो । शीर्षक पृष्ठमा अध्ययनको शीर्षक, संस्थाको नाम, अनुसन्धानकर्ताको नाम, रोल नम्वर, ब्याच वर्ष उल्लेख गरिन्छ । शीर्षक छनौट गर्दा धेरै लामो वा छोटो हुनुहुँदैन । यदि प्रतिवेदन अँग्रेजी भाषामा तयार गर्नुपर्ने भएमा शीर्षकमा प्रत्येक शब्दहरुको पहिलो अक्षर Capital letter मा लेख्नुपर्दछ । जस्तैः

माध्यमिक तहमा अंग्रेजी र नेपाली माध्ययमबाट अध्ययन गर्ने बिद्यार्थीहरुमा देखिएको नतिजा भिन्नताको अबस्था

त्रिभुवन विश्वविद्यालय शिक्षाशास्त्र संकाय
स्नातक तह पाठ्यक्रम तथा मूल्याङकन विषयको
आशिंक आवश्यकता पूरा गर्नका लागि प्रस्तुत शोधपत्र

प्रस्तुतकर्ता
....

सिम्वोल नं.............

त्रिभुवन विश्वबिद्यालय केन्द्रिय बिभाग काठमाण्डौ,नेपाल

२०७७

(Faculty of Education, 2014)

सिफारिस पृष्ठ (Recommendation page)

अनुसन्धान प्रतिवेदन प्रस्तुत गर्नुपूर्व आफ्नो अनुसन्धान निर्देशकद्धारा प्रदान गरिएको सिफारिस पत्र उल्लेख गर्नुपर्दछ । सिफारिस पत्रमा सोध सुपरीवेक्षकले अनुसन्धानकर्ताद्धारा प्रस्तुत गरिएको प्रतिवेदन आफ्नो प्रत्यक्ष निगरानीमा तयार गरिएको हो र यस अनुसन्धानबाट म पूर्ण रुपमा सन्तुष्ट छु र अन्तिम मूल्याङकनका लागि मूल्याङकन समिति समक्ष सिफारिस गर्दछु भन्ने ब्यहोरामा हस्ताक्षर गर्दछन् । यसमा पृष्ठको सबैभन्दा तल दायाँतर्फ सुपरीवेक्षकको नाम र पद तथा हस्ताक्षर गर्नका लागि केही खाली ठाउँ छोड्नुपर्दछ ।

स्विकृति पत्र (**Approval letter**)

अन्तिम मूल्याङकन समितिका निर्देशकले सिफारिस गरेपछि अनुसन्धान र मूल्याङकन समितिले अनुसन्धानकर्ताको अन्तवार्तापछि अनुसन्धान प्रतिवेदनलाई स्वीकृति प्रदान गरिन्छ । स्वीकृति पत्रले अनुसन्धान प्रतिवेदनको मौखिक परीक्षा सम्पन्न भई त्यसको अन्तिम मूल्याङकन गरिसकिएको अबस्थालाई जनाउँदछ ।

कृतज्ञता ज्ञापन (**Acknowledgement**)

अनुसन्धानकर्ताले आफ्नो अनुसन्धान कार्य संचालन गर्दा सहयोग गर्ने महानुभावहरुलाई धन्यवाद ज्ञापन गर्दछ । कृतज्ञता ज्ञापन सक्षिप्त र सरल हुनुपर्दछ । यस अन्तर्गत अनुसंधानको उद्देश्य, बिशेषता र संगठनलाई संक्षिप्त रुपमा प्रस्तुत गर्नुका साथै निर्देशक, सहयोगी, सामग्री उपलब्ध गराउने व्यक्तिहरु, साधन स्रोत तथा आर्थिक सहयोग उपलब्ध गराउने व्यक्ति एवम् संस्थाहरु, प्रतिवेदन टाइप गर्ने व्यक्ति आदि प्रति अनुसन्धानकर्ताले कृतज्ञता ज्ञापन गर्नुपर्दछ ।

प्राक्कथन (Preface)

कृतज्ञता ज्ञापन पछि प्राक्कथन प्रस्तुत गरिन्छ । प्राक्कथन भनेको सोधकर्ताको अनुसन्धान सम्बन्धी आफ्नो भनाइ वा धारणा हो । अनुसन्धान प्रतिवेदनमा कृतज्ञता ज्ञापन र प्राक्कथनलाई एउटै पृष्ठमा राखेर पनि प्रस्तुत गर्ने गरेको पाइन्छ ।

सार संक्षेप (Abstract/ Executive summary)

प्रत्येक शोधपत्रको प्रारम्भिक खण्डमा सम्पूर्ण अनुसन्धानको सार उल्लेख गर्नुपर्दछ । अनुसन्धानकर्ताद्वारा तयार गरिएको शोध प्रतिवेदनको प्रभावकारीताको निर्धारण शोधसारबाट सजिलै थाहा पाउन सकिन्छ । यसमा समस्याको कथन, अध्ययनको उद्देश्य, अनुसन्धान पद्धति, निष्कर्ष र सुझावलाई सार संक्षेपमा अत्यन्तै स्पष्ट र सटिक रुपमा उल्लेख गर्नुपर्दछ । यसको मुख्य उद्देश्य अनुसन्धान प्रतिवेदन अध्ययन गर्न लामो समय लाग्ने र प्राबिधिक जटिलता बढी हुने भएकोले छोटो समयमा अनुसन्धानको भावलाई बुझ्न पाठकहरुलाई सहयोग पुऱ्याउनु हो । APA (2020) अनुसार सार संक्षेप एक अनुच्छेदमा १५० देखि २५० शब्द सम्मको लेख्दा राम्रो हुन्छ ।

विषयसूची (List of content)

अनुसन्धान प्रतिवेदनमा राखिएका परिच्छेदका शीर्षक उपशीर्षक र पृष्ठसंख्या समेत समेटिएको सूचि बिषयसूची हो । विषयसूचीले पाठक एवं सुपरीवेक्षलाई अनुसन्धान प्रतिवेदनको कुनै अध्याय वा उपशीर्षक कुनै पृष्ठमा छ भन्ने सहजै खोज्न सजिलो हुन्छ ।

तालिका सूची (List of tables)

अनुसन्धान प्रतिवेदनमा समावेश भएका तालिकाहरुलाई तालिकाको शीर्षक र ती तालिका रहेको पृष्ठ संख्या समेत जनाई प्रस्तुतिकरण गरिएको सूचिलाई तालिका सूचि भनिन्छ । यसबाट पाठका वा सुपरीवेक्षकलाई अनुसन्धान प्रतिवेदनमा भएका तालिकामा उल्लेख गरिएका प्रस्तुतिलाई तत्काल हेर्न सजिलो हुन्छ ।

चित्रसूची (List of figures)

अनुसन्धान प्रतिवेदनमा समावेश गरिएका चित्र, नक्सा, ग्राफ आदिलाई त्यसको शीर्षक र ती चित्र भएको पृष्ठ संख्या समेत जनाई प्रस्तुतिकरण गरिएको सूचिलाई चित्रसूची भनिन्छ । यस सूचिबाट पनि पाठक वा सुपरीवेक्षकलाई अनुसन्धान प्रतिवेदनमा रहेका चित्रात्मक प्रस्तुतिलाई तत्काल हेर्न सजिलो हुन्छ ।

सङक्षिप्त रुप (Abbrevation form)

अनुसन्धान प्रतिवेदनमा कतिपय शब्दहरुको छोटकरी रुप लेख्ने गरिन्छ । सङक्षिप्त रुपले अनुसन्धान प्रतिवेदन अन्तर्गत प्रयोग भएका सम्पूर्ण सङक्षिप्त शब्दावलीहरुको पूर्णरुप वर्णानुक्रम अनुसार उल्लेख गरी पाठक वर्गलाई स्पष्ट पार्ने गर्दछ । प्राय चलिआएका त्यस्ता शब्दावलीको ब्याख्या गरिरहनु आबश्यक हुदैन ।

ख. मूख्य खण्ड (Main section)

मुख्य खण्डलाई अनुसन्धान प्रतिवेदनको मूल्याङकन गर्ने महत्वपूर्ण खण्डका रुपमा मानिन्छ । यस भागमा अनुसन्धानको परिचय, अध्ययन तथा विश्लेषणको मूल खण्ड तथा निष्कर्ष र सुझाव समेत र आवश्यकता अनुसार अतिरिक्त शीर्षक तथा उपशीर्षकहरु समेत समाबेश गरिन्छ । सुपरीवेक्षक एवं पाठकहरुलाई अनुसन्धानकर्ताले आफूले

गरेका सम्पूर्ण क्रियाकलापहरुका बारेमा अनुसन्धान प्रतिवेदनको यसै मुख्य खण्ड मार्फत जानकारी प्राप्त हुने भएकोले यो खण्डको बिशेष महत्वपूर्ण स्थान रहन्छ । यस अनुसन्धान प्रतिवेदनमा समावेश गरिने तत्वलाई निम्नानुसार उल्लेख गर्न सकिन्छ (Kumar, 2014)।

अनुसन्धान परिचय (Introduction/Background of the study)

मूख्य खण्डको पहिलो अध्यायमा अनुसन्धानको परिचय प्रस्तुत गरिन्छ। यस अन्तर्गत अध्ययनको पृष्टभूमि (Background), समस्याको कथन (Statements of the study), अध्ययनको उद्देश्यहरु (Objectives of the study), परिकल्पना (Hypothesis), अध्ययनको महत्व (Significance of the study),अध्ययनको सीमा (Limitations of the study), प्रासङ्गिक शब्दावलीहरुको परिभाषा (Definitions of the terms) जस्ता शीर्षकहरुलाई क्रमबद्ध तरिकाबाट उल्लेख गर्नु पर्दछ । यथार्थमा परिचयले नै अध्ययनको मूल समस्या र महत्वलाई स्पष्ट पार्ने भएकोले परिचय खण्डलाई अनुसन्धान प्रतिवेदनको महत्वपूर्ण अंशका रुपमा लिइन्छ । परिचय अर्न्तगत समावेश गरिने मुख्य विषयहरु निम्नानुसार उल्लेख गर्न सकिन्छ।

समस्या कथन (Statement of the problems)

अनुसन्धानको परिचय खण्ड अन्तर्गत अनुसन्धानका लागि निर्धारित समस्यालाई बिस्तृत रुपमा उल्लेख गरिन्छ। यस अन्तर्गत सम्बन्धित अनुसन्धान शीर्षकको सैद्धान्तिक भूमिका प्रस्तुत गरी मूल समस्यामा प्रवेश गरिन्छ। समस्या कथनमा अनुसन्धानको समस्या के हो र या किन छनौट गरियो जस्ता विषयबस्तुहरुलाई स्पष्ट गरिन्छ।

अध्ययनको उद्देश्य (Objectives ot the study)

अनुसन्धान प्रतिवेदनको प्रारम्भिक खण्डमा नै अध्ययनको उद्देश्य र त्यस अन्तर्गत शाखा उद्धद्दश्यहरु विभाजन गरिएको हुन्छ। उद्देश्यले अध्ययनको सम्पूर्ण बिधिलाई निर्देशित गर्ने भएकोले उद्देश्य स्पष्ट, पूर्ण र विशिष्ट प्रकारको हुनुपर्दछ।

अध्ययनको क्षेत्र (Scope of the study)

अनुसन्धान प्रतिवेदनको यस भाग अन्तर्गत क्षेत्रलाई अंकित गर्नुका सार्थ अनुसन्धान गरिने समस्याको सीमा निर्धारण समेत गरिन्छ।

परिकल्पना (Hypothesis)

अनुसन्धान प्रतिवेदनको मूख्य खण्डमा नै अध्ययनका लागि तयार गरिएका परिकल्पनाहरु समावेश गरिएको हुन्छ। यसमा परिकल्पना परीक्षण गरिने आधारहरु प्रस्तुत गरिनुका साथै परिकल्पना निर्माणका स्रोत पनि उल्लेख गरिनुपर्दछ।

अध्ययनको महत्व (Importance of the study)

अध्ययनका उद्देश्यहरु उल्लेख गरिसकेपछि अनुसन्धानकर्ताले अध्ययनको के कस्तो महत्व रहेको छ ? साथै अध्ययनबाट प्राप्त निष्कर्ष कुन पक्ष वा के कस्ता व्यक्ति र संघ संस्थाहरुलाई उपयोगी हुन्छन् ? भन्ने कुरा स्पष्ट रुपमा प्रतिवेदनमा उल्लेख गर्नुपर्दछ।

अध्ययनका सिमाहरु (Limitaionss and demilitations of the study)

अध्ययनका क्रममा अध्ययनलाई व्यबस्थित तथा प्रभावकारी बनाउनका लागि तयार गरिएका सिमाहरुलाई अनुसन्धानकर्ताले प्रतिवेदन लेखनका क्रममा जस्ताको तस्तै उल्लेख गर्नुपर्दछ । अध्ययनका क्रममा निष्कर्षहरुले बिश्वसनीयता र बैधता माथि नै प्रश्नचिन्ह आउन सक्छ ।

शब्दावलीहरुको परिभाषा (Definitions of the terms)

अनुसन्धान प्रतिवेदनको परिचय खण्डमा अनुसन्धानको सिलसिलामा आउने प्रासङ्गिक शब्दावलीहरुलाई परिभाषित गर्नुपर्दछ ।

पूर्वसाहित्यको समीक्षा (Review of literature)

अनुसन्धान प्रतिवेदनको दोस्रो खण्डमा पूर्व साहित्यको समीक्षा प्रस्तुत गरिन्छ । पूर्व साहित्यको पुनराबलोकनले सम्बन्धित विषयमा पहिले भएका खोजको मूल्याङकन गर्न सहयोग गर्नुपर्दछ । सम्बन्धित साहित्यको पुनराबलोकनमा अनुसन्धानकर्ताले आफ्नो अध्ययनको शीर्षकसंग सम्बन्धित सैद्धान्तिक साहित्य एबं पूर्व अनुसन्धान दुबैको बिस्तृत रुपबाट पुनरावलोकन गर्दछ । यसप्रकारको पुनराबलोकन गर्दा अनुसन्धानकर्ताले विगतका अनुसन्धान प्रतिवेदनहरु, शोधपत्रहरु,पत्रपत्रिकाहरु, इन्टरनेट सामग्रीहरु, पुस्तकहरु एवं जर्नलहरुको संकलन तथा गहनतम अध्ययन गर्नुपर्दछ (Kumar, 2014) । अनुसन्धान प्रतिवेदनमा साहित्यको पुनरावलोकनको समीक्षात्मक विवरण प्रस्तुत गर्दा पाठकहरुलाई उक्त विषयमा पहिले के कस्तो, के कति अनुसन्धान भएको रहेछ भन्ने विषय स्पष्ट हुने गर्दछ । साहित्यको पुनरावलोकनको खण्डमा उद्धरणहरुको महत्वपूर्ण भूमिका रहने भएकोले अनुसन्धानकर्ताले आफ्नो अनुसन्धान कार्यका लागि के कति कृतिहरु तथा सामग्रीहरुको पुनरावलोकन गरेको छ भन्ने विषयमा जानकारी गराउने माध्ययम उद्धरण भएकोले पुनरावलोकनमा उद्धरणहरुको उचित किसिमबाट प्रयोग गर्नुपर्दछ ।

अध्ययन बिधि (Methodology)

अनुसन्धान पद्धतिको तेस्रो खण्ड अध्ययन बिधि हो । अनुसन्धान पद्धतिले अनुसन्धान कार्यलाई मार्गनिर्देशन गर्दछ । अध्ययन विधिमा अध्ययनका लागि आबश्यक पर्ने तथ्याङ्क संकलनका साधनहरु तथा ती साधनहरु मार्फत विस्तृत जानकारी समावेस गरिन्छ । शैक्षिक अनुसन्धान ढाँचा अनुसार तथ्यांक संकलन गर्ने पद्धतिहरु फरक फरक रहेका हुन्छन् । द्धितीय तथ्यांकका स्रोतहरुलाई अनुसन्धानको सहायक सामग्रीका रुपमा प्रयोग गर्नुका साथै शैक्षिक अनुसन्धानमा वर्तमान परिस्थितिको खोज गर्नुपर्दा प्राथमिक स्रोत प्रयोग गरी तथ्यांक संकलन गर्न सकिन्छ । प्रश्नावली भराएर, अवलोकन गरेर, परीक्षा एवं अन्तरवार्ता प्रयोग गरेर, साथै प्रयोगात्मक अनुसन्धान भए उक्त अनुसन्धान बिधि तथा ढाँचा, चरहरुको वर्गीकरण तथा संचालन, प्रयोगात्मक कार्यक्रमको प्रस्तुति आदि जस्ता तत्वहरुको विस्तृत विवरण एबं उपलब्धी मापनका प्रत्यक्ष विधिहरु समेत प्रयोग गरी तथ्याङ संकलन गर्न सकिन्छ (Joshi, 2001) ।

तथ्यांकको व्याख्या एवं बिश्लेषण (Analysis and interpretations of data)

तथ्यांकको व्याख्या एवं विश्लेषण अनुसन्धानको चौथो खण्ड हो । यस खण्डमा तथ्यांकलाई साङ्केतिकीरण, वर्गीकरण एवं तालिकीकरण गरी तिनीहरुलाई अर्थपूर्ण ढंगबाट विश्लेषण गरिन्छ । यस खण्डमा तथ्यांकहरुको व्याख्या एवं बिश्लेषण गर्ने क्रममा निर्माण गरिएका चित्रहरु एवं तालिकाहरुलाई सूचीबद्ध गरी प्रस्तुत गनुपर्दछ । लामो खालका तालिकाहरुलाई यस खण्डमा समाबेश नगरी अनुसूचीमा समावेश गर्नुपर्दछ । तथ्यांकको व्याख्या एवं बिश्लेषण गर्दा संकलन गरिएका जानकारीहरुलाई तथ्यांकशास्त्रीय बिधिहरु मार्फत परीक्षण गरी प्रस्तुत गर्नुपर्दछ ।

प्राप्ति, निष्कर्ष र सुझावहरु (Findings, conclusion and recommendation)

अनुसन्धान प्रतिवेदनको मुख्य खण्डको अन्तिम अध्याय प्राप्ति, निष्कर्ष र सुझावहरु हो । यस खण्डमा विस्तृत विश्लेषण ब्याख्या र बिवेचना गरी प्राप्त निष्कर्षलाई सारांशको रुपमा प्रस्तुत गर्नुपर्दछ । यसरी प्रस्तुत गरिने निष्कर्षहरु परीक्षण गरिएका परिकल्पनासंग प्रत्यक्ष रुपमा सम्बन्धित हुनेगरी प्रस्तुत गर्नुपर्दछ । यसका अतिरिक्त निष्कर्षलाई अनुसन्धान प्रश्नहरुद्धारा उठाईएका समस्याहरुको समाधानका रुपमा उल्लेख गरी प्रस्तुत गर्नुपर्दछ ।

अनुसन्धान प्रतिवेदनमा निष्कर्षपछि अनुसन्धानकर्ताले पहिचान गरेका सुझावहरु प्रस्तुत गरिन्छ । सुझावहरु अर्थपूर्ण सटिक र स्पष्ट हुनेगरी प्रस्तुत गरिनुपर्दछ अनुसन्धान प्रतिवेदमा निष्कर्ष तथा सुझावहरुलाई छुट्टाछुट्टै राख्ने वा मुख्य खण्डमा नै लेख्ने भन्ने सम्बन्धमा कुनै पनि किसिमको नियम छैन तरपनि वेग्लै खण्ड वा एकाइमा उल्लेख गर्ने चलन रहेको छ । अनुसन्धानको निष्कर्ष कति लामो वा छोटो लेख्ने सम्बन्धमा पनि कुनै नियम रहेको पाइदैन । तरपनि यसलाई साल स्पष्ट वुझिने र सम्पूर्ण प्राप्ति समेटिने गरी निर्माण गर्नुपर्दछ ।

ग) सन्दर्भ खण्ड (References)

अनुसन्धान प्रतिवेदनको अन्त्यमा सम्पूर्ण सामग्रीहरु उल्लेख गरिन्छ । यस खण्ड अन्तर्गत सन्दर्भ सामग्री सूचि (Refernces), परिशिष्ट (Appendix), बिशिष्ट शब्दावली (Glossary of terms), सन्दर्भसूची (Bibliography), अनुक्रमणिका (Index), अनुसूचीहरु (Indics), नक्सा र चित्रहरु (Maps and pictures) समावेश गरिएका हुन्छन् ।

अनुसन्धान प्रतिवेदन लेखन गर्दा सन्दर्भ सामग्री सूचिलाई अनुसन्धान प्रतिवेदन तयारी एवं लेखन गर्नका लागि साभार गरिएका पुस्तकहरु, शोधपत्रहरु, पत्रपत्रिकाहरु,जर्नलहरु, इन्टरनेट सामग्रीहरु निश्चित निर्धारित ढाँचामा प्रस्तुत गर्नुपर्दछ । सन्दर्भ सामग्रीहरु लेख्दा वर्णानुक्रम अनुसार प्रचलित ढाँचा APA format र MLA format मा आधारित रहेर लेख्नुपर्दछ ।

परिशिष्ट (Appendix)

अनुसन्धान प्रतिवेदनको मुख्य खण्डमा राख्न नमिल्ने सामग्रीहरु, लामा लामा उद्धरणहरु, तालिका, प्रश्नावली, परीक्षण प्रश्नहरु आदिलाई प्रतिवेदनको अन्त्यमा राखेर लेखिने भागलाई परिशिष्ट भनिन्छ ।

विशिष्ट शब्दावली (Glossary of terms)

अनुसन्धान प्रतिवेदन तयार गर्दा कतिपय अवस्थामा अर्थ स्पष्ट हुन नसक्ने शब्दहरु एवं प्राविधिक शब्दावलीहरु समेत प्रयोगमा आउन सक्छन् । विशेष गरी आगन्तुक बिशिष्ट शब्द, स्थानीय रुपमा प्रचलित शब्दहरु यस अन्तर्गत पर्दछन् । त्यस्ता शब्दहरुको सूचि निर्माण गरी वर्णानुक्रम अनुसार अनुसूचीमा उल्लेख गरिन्छ ।

सन्दर्भसूची (Bibliography)

अनुसन्धान प्रतिवेदन लेखन कार्यमा गरिएका प्रकाशित एवं अप्रकाशित कृतिहरुलाई सन्दर्भसूची भनिन्छ । प्रतिवेदन तयार गर्दा सन्दर्भ सामग्रीहरुलाई निश्चित ढाँचामा उल्लेख गर्नुपर्दछ । त्रिभुवन विश्वविद्यालय स्नातक वा स्नातकोत्तर तहमा APA Format मा आधारित रहेर प्रयोग गरिन्छ । जस्तै

- ✓ पराजुली, तीर्थराज, (२०७६), अनुसन्धान पद्धति, काठमाण्डौः हेरिटेज प्रकाशन
- ✓ Vaizey, J. (2017). *Education in the modern world.* New York: MC Graw Hill.

अनुक्रमणिका (Index)

अनुसन्धान प्रतिवेदनमा प्रयोग भएका मुख्य शब्दहरुको सूचीलाई अनुक्रमणिका भनिन्छ । यस्ता शब्दहरुको सूचीले अनुसन्धानमा के कस्ता शब्दहरु, कतिपटक र कुन कुन स्थानमा प्रयोग भएका छन् ?भनि स्पष्ट पार्ने गरिन्छ । अनुक्रमणिका अक्षरात्मक क्रममा राखिन्छ ।

नक्सा र चित्रहरु (Maps and pictures)

अनुसन्धान कार्यलाई थप विश्वसनीय बनाउन र प्रमाणहरु जुटाउन अनुसन्धान प्रतिवेदनमा नक्सा र चित्रहरु समावेश गरिन्छ । अनुसन्धान कार्य संचालन गर्दा अनुसन्धानमा प्रयोग भएका नक्सा र चित्रहरु संगै तिनीहरुको छोटो चिनारी पनि प्रस्तुत गर्नुपर्दछ ।

प्रतिवेदन लेखनको ढाँचा (Format for report writing)

अनुसन्धान प्रतिवेदन, अनुसन्धान लेख तथा अनुसन्धनात्मक पत्रपत्रिकाहरु लेखन एवं प्रकाशन गर्दा निश्चित ढाँचा र सर्वमान्य संरचनाको प्रयोग गर्नुपर्दछ । जसले अनुसन्धान कार्यका मुख्य बुँदाहरु एवं प्राप्तिहरुलाई तत्काल सरल किसिमबाट वुभ्न सहयोग गर्दछ भने अनुसन्धान प्रतिवेदनको मूल्याङकन गर्न पनि आधार प्रदान गर्दछ (Mustafa, 2010) । तसर्थ अनुसन्धान प्रतिवेदन लेखन कार्यलाई एकरुपतापूर्ण शैलीबाट प्रस्तुत गर्नु आबश्यक हुन्छ ।

प्रतिवेदन लेखनशैलीको विकास गर्ने उद्देश्यले अन्तराष्ट्रिय स्तरमा विभिन्न संघ संस्था एवं निकायहरुले निर्धारित ढाँचामा अनुसन्धानमुलक लेख, प्रतिवेदन,पत्रपत्रिकाहरु प्रकाशन गर्ने कार्यमा एकरुपता ल्याउन विभिन्न प्रणालीहरुको विकास गरेका छन् । जस्तैः अमेरिकी मनोवैज्ञानिक संघ प्रणाली (American Psychological Associations System- APA system), आधुनिक भाषा संघ प्रणाली (Modern Language Association System-MLA System), हार्वर्ड प्रणाली (Harvard Systerm), मेक्ग्रहिल प्रणाली (Mc Graw system) आदि । उल्लेखित अनुसन्धान प्रतिवेदन लेखनका ढाँचाहरु मध्ये अहिले बढी प्रचलनमा रहेका अनुसन्धान प्रतिवेदनको ढाँचा APA Format हो । यसलाई ब्यापक रुपमा स्वीकारिएको छ । APA (2010) ले प्रतिवेदन लेखनको ढाँचालाई निम्नानुसार प्रस्तुत गरेको छ ।

शीर्षक (Title)

APA ढाँचाबाट शीर्षक लेख्दा शीर्षक जहिले पनि मुख्य शीर्षकको संक्षेपिकृत कथन हुनुपर्दछ । शीर्षकको लम्बाई १२ शब्द भन्दा धेरै राख्न हुदैन (APA, 6^{th}) ।

लेखकको नाम र संस्थागत सम्वद्धता (Authours name and institutional affiliation)

APA ढाँचा अनुसार लेखकको नाम लेख्दा पहिलो, मध्य र अन्तिम नाम लेख्नुपर्दछ । जस्तै : अनुसन्धानकर्ताको नाम H.B. Chhetry को रुपमा नलेखी Hari B. Chhetry का स्वरुपमा लेख्नुपर्दछ । साथै लेखकको नामको अगाडि पछाडि उपाधिहरु लेख्नु हुँदैन । अनुसन्धानकर्ताको संस्थागत आबद्धता भए

अनुसन्धानकर्ताको नामको ठीक तल संस्थाको नाम र त्यसपछि अल्पविराम राखेर सो संस्था रहेको ठाउँ उल्लेख गर्नुपर्दछ ।

शोधसार (Abstract)

शोधसारले अनुसन्धान प्रतिवेदनको (लेख रचनाको) विषयवस्तुलाई संक्षिप्त रुपले साराशंमा पाठकहरुले तुरुन्तै वुझ्न सक्नेगरी स्पष्ट र स्तरीय भाषामा प्रस्तुत गर्नुपर्दछ । सोधसार लेख्दा अनुसन्धानका नतिजाहरु उल्लेख गर्दा वर्तमान काल र उपलब्धिहको उल्लेख भूतकालमा गर्नुपर्दछ ।

शीर्षककासाथ अनुसन्धान पाण्डुलिपिको संगठन (Organizing a research manuscript with headings)

अनुसन्धान पाण्डुलिपिमा प्रत्येक शीर्षक तथा उपशीर्षकहरुलाई माथिल्लो तहदेखि तल्लो तहसम्म क्रमबद्धताका आधारमा पाठक वर्गलाई अनुसन्धानका पकृयाबारे अनुसन्धानका मुख्य वुँदाहरुलाई वुझ्नेगरी प्रस्तुत गर्नुपर्दछ । जस्तै :

तालिमा नं. १

Level of Heading	Format
Level 1st	Centred, Boldface uppercase and lowercase Heading
Level 2nd	Flush left, Boldface uppercase and lowercase Heading
Level 3rd	Indented Boldface, Lowercase, Paragraph heading ending with a period
Level 4th	Indented, boldface, Italicized, Lowercase, paragraph heading ending with a period
Level 5th	Indented, Italicized, Lowercase paragraph heading ending with a period

(APA, 2010)

कमबद्धता (Seriation)

क्रमबद्धताले पाठक एवं अध्यतालाई कुनै खण्ड, अनुच्छेद अर्न्तरगतका मुख्य वुँदाहरुको संगठन बारे थाहा पाउन मद्धत गर्दछ । क्रम अन्तर्गतका वाक्यहरुलाई छुट्टै हिन्दुअरेविक संख्याहरुमा राखी क्रमबद्धता कायम पनि गराउन सकिन्छ ।

ब्याकरण र भाषामा शब्दहरुको प्रयोग (Grammar and useage)

अनुसन्धान प्रतिवेदन एवं अन्य अनुसन्धानमूलक लेखहरु लेख्दा अध्येता वा पाठकले सहज वुझ्न सक्नेगरी ब्याकरणीय शुद्धता रहने गरी उचित भाषामा शब्दचयन र प्रयोग गर्नुपर्दछ ।

विराम क्रियाहरु (Punctuation marks)

विराम चिन्हहरु प्रयोग गर्दा अल्पविराम, कोलनहरु र सेमिकोलनको पछाडि एक स्पेस छोड्नुपर्दछ । उद्धरणका भागहरु छुट्याउने पूर्ण विराम चिन्हहरुका पछाडि एक स्पेस छाड्नुपर्दछ । ३ वा ३ भन्दा वढि तत्वहरुका

बिचमा संयोजन भई बनेका २ स्वतन्त्र कारकका बिचमा वास्तविक मितिमा र मिश्रित भविष्य सूचकका बिचमा अल्पविराम चिन्ह प्रयोग गर्नुपर्दछ ।

ठूलो वर्णमालाको अक्षर (Capitalization)

ठूलो वर्णमालाको अक्षर पूर्ण वाक्यको पहिलो र शब्दको सुरुमा प्रयोग गर्नुपर्दैछ । त्यसैगरी कोलन (:) पछिको वाक्यको सुरुको अक्षरमा अनुसन्धानका शीर्षकहरु, उपशीर्षकहरु आदिमा ठूलो वर्णमालामा लेख्नुपर्दछ ।

इटालिक्सको प्रयोग (Use of italics)

इटालिक्सको प्रयोग पुस्तकहरु, भिडियोहरु, नयाँ प्राविधिक शब्दावलीहरु, तथ्याङशास्त्रीय चित्रहरु, स्केलका श्रेणीका मापनहरु आदिमा गरिन्छ ।

संक्षिप्त शब्दावलीहरु (Abbreviations)

अनुसन्धान प्रतिवेदनमा अध्येतालाई सजिलै वुझ्न सक्नेगरी पूर्ण स्वरुप (Full form) वा संक्षिप्त शब्दावलीहरु प्रयोग गर्नुपर्दछ । APA model अनुसार पाठकहरुसंग परिचित शब्दाबलीहरु जस्तै : WHO, HIV आदिको प्रयोग गर्दा पूर्ण स्वरुपमा लेख्नु आबश्यक हुदैन भने पाठक वर्ग संग अपरिचित शब्दावलीहरु जस्तैः CS, ATM आदि जस्ता शब्दावलीहरुको भने संक्षिप्त रुप लेख्नुपर्दछ ।

दशमलव र भिन्न (Decimal and fraction)

अनुसन्धान प्रतिवेदनमा उल्लेख भएका तथ्यांकको मानहरु दशमलवको सून्यान्तको नियम प्रयोग गरी लेख्नुपर्दछ ।

तथ्याङ्कशास्त्रीय सङ्केत (Stastistical symbols)

अनुसन्धान प्रतिवेदन लेखनमा अनुच्छेदका रुपमा तथ्याङ्कशास्त्रिय शब्द लेख्दा यसको सट्टा संकेत उल्लेख गर्नुपर्दछ ।

तालिका र चित्र संख्या (Tables and figure numbers)

APA Format अनुसार अनुसन्धान प्रतिवेदनमा तालिका संख्या र चित्रहरुलाई हिन्दुअरेविक संख्याहरु दिई तालिका संख्या र चित्र संख्या उल्लेख गर्नुपर्दछ । प्रत्येक तालिका तथा चित्रमा भएको विषयबस्तु अनुसार ती तालिका तथा चित्रहरुलाई संक्षेपमा स्पष्ट बुझ्नेगरी लेख्नुपर्दछ ।

स्रोतहरुको प्रत्यक्ष भनाई (Direct quotation of sources)

अनुसन्धनात्मक लेखहरु एवं प्रतिवेदन लेखनमा प्रत्यक्ष भनाइहरु साभार गर्दा साभार गरिएको सामग्रीलाई अनुच्छेदमा लेखकको नाम, बर्ष र पृष्ट उद्धरण गर्नुपर्दछ । प्रत्यक्ष भनाई ४० शब्द भन्दा कम भएमा दोहोरो उद्धरण चिन्ह (“ ”) राख्ने तर ४० शब्द भन्दा कम भएमा प्रत्यक्ष भनाइ साभार गर्दा वेग्लै अनुच्छेदमा लेखी त्यसलाई दोहोरो उद्धरण भित्र राख्नुपर्दछ । APA नियम अनुसार ४०० देखि ८०० सम्म मात्र साभार गर्न सकिन्छ । ८०० शब्द भन्दा बढी शब्दहरु साभार गर्नुपरेमा सम्बन्धित प्रतिलिपि अधिकार प्राप्त व्यक्तिबाट अनुमति लिएर मात्र साभार गर्नुपर्दछ ।

स्पेस (Space)

अनुसन्धान प्रतिवेदनको मुल अंश १.५ स्पेस छाडेर टाइप गर्नु उपयुक्त मानिन्छ । तर पाद टिप्पणी र उध्रितांश मा भने singal space छाडेर लेख्न सकिन्छ ।

किनारा छाड्ने (Margins)

अनुसन्धान प्रतिवेदन आबश्यकता अनुसार निश्चित किनारा छाडेर आकर्षक किसिमबाट APA Format अनुसार टाइप गरिएको हुनुपर्दछ । अनुसन्धान प्रतिवेदन तयार पार्दा प्रत्येक पृष्टको माथि,तल, दायाँ र वायाँ १ इन्चको किनारा छाड्नु पर्दछ ।

पेपर (Paper)

अनुसन्धान प्रतिवेदनमा प्रयोग गरिने पेपर राम्रो र आकर्षक हुनुपर्दछ । साधारणतया पेपरको तौल ४ देखि ५ ग्राम र A4 आकारको पेपरमा एकातिर मात्र टाइप गरी प्रतिवेद तयार गर्नुपर्दछ ।

पृष्ठ संख्या (Page number)

अनुसन्धान प्रतिवेदनका लागि पाण्डुलिपिमा भएका सबै पृष्ठहरुलाई क्रमबद्ध रुपमा मिलाइसकेपछि शीर्षकबाट क्रमशः पृष्ठसंख्या राख्नुपर्दछ । पाण्डुलिपिको सुरुको भागमा रोमन संख्यामा पृष्ठ तल एक इन्च किनारामा केन्द्रित गरी पृष्ठसंख्या लेखिन्छ ।

अक्षरको आकार (Letter size)

अनुसन्धान प्रतिवेदन लेख्दा अक्षरको आकार एकरुपता कायम गरी लेख्नुपर्दछ । सामान्यतया Preeti Font मा १६ र New Roman Times मा १२ font size राखेर अक्षरको आकार लेख्नुपर्दछ ।

पाठ्यसामग्रीमा सन्दर्भ सामग्रीहरु (Citing references in text)

अनुसन्धान प्रतिवेदन लेखन कार्य गर्दा पाठ्यसामग्रीमा सन्दर्भ सामग्रीहरु जस्ताको त्यस्तै लेखी प्रस्तुत गर्नुपर्दछ ।

वायन्डिङ (Binding)

अनुसन्धान प्रतिवेदन लेखनलाई छपाइ गरिसकेपछि आकर्षक शैलीबाट Binding गर्नुपर्दछ । कसरी कुन रंगमा Binding गर्ने नियम विश्वबिद्यालय अनुसार फरक फरक हुने भएता पनि त्रिभुवन विश्वबिद्यालयले स्नातकोत्तर तहका लागि अनुसन्धान प्रतिवेदन कालो रंगमा कडा कभरमा Binding गर्नुपर्ने नियम रहेको छ ।

निष्कर्ष (Conclusion)

अनुसन्धानलाई पूर्णता दिनको लागि अनुसन्धान प्रतिवेदन आवश्यक पर्दछ । अनुसन्धान प्रतिवेदन बिना अनुसन्धानको नतिजा बाहिर आउन सक्दैन र अनुसन्धानको प्राप्तिले पार्नुपर्ने प्रभाव पार्न सक्दैन । तसर्थ विभिन्न विश्वविद्यालयहरुले विद्यार्थीहरुलाई अनुसन्धान गर्ने र त्यसको प्रतिवेदन प्रकाशन गर्न उत्प्रेरित गरेको हुन्छ । उच्च शिक्षालाई अनुसन्धानसँग समन्वय गरी विद्यार्थीहरुलाई यसतर्फ उद्धत गरिराखेको छ । यसका लागि प्रतिवेदन लेखनमा सहजीकरण गर्नका लागि सम्बन्धित संस्थाका अनुसन्धान विभागहरुले महत्वूर्ण भूमिका खेल्नुपर्दछ । कतिपय

विद्यार्थीहरु अनुसन्धान गरिसकेपछि प्रतिवेदन लेखनलाई समस्यको रुपमा लिन्छन् । प्रतिवेदन लेखनका लागि माथि उल्लेखित केही प्रतिवेदन लेखनका ढाँचाहरु अनुसरण गर्न सकियो भने प्रतिवेदन लेखन जटिल हुँदैन । यसका लागि प्रतिवेदन लेखन तरिका, भाषिक सीप, कम्प्युटर प्रविधि सम्बन्धी आवश्यक ज्ञान विद्यार्थीहरुमा दिनु आवश्यक छ । प्रस्तुत लेखले स्नातक तथा स्नातकोत्तर तहका विद्यार्थीहरुलाई प्रतिवेदन लेखनमा केही सहयोग गर्न सक्दछ ।

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