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Editorial

In the present era, the pursuit of knowledge has become increasingly rigorous, with scholars across diverse disciplines engaging in systematic inquiry and empirical investigation. As both a methodological framework and an epistemological instrument, research serves as a pivotal driver of the expansion and advancement of human knowledge and understanding. Through sustained intellectual engagement, researchers have not only extended existing theoretical paradigms but have also critically examined and, in certain cases, refuted entrenched assumptions, thereby fostering the development of novel theoretical insights and practical applications. This dynamic process affirms research as a structured, intellectually disciplined endeavor dedicated to the generation, refinement, and dissemination of knowledge. Moreover, such scholarly activity transcends individual academic advancement, forming the foundation for collective intellectual growth, societal progress, and evidence-based policy formulation. Consequently, research functions not merely as an academic undertaking, but as an indispensable mechanism for fostering innovation, critical reasoning, and informed decision-making in an increasingly complex global context.

In the continuity of intellectual practice, university professors have undertaken diverse studies and research endeavors, systematically drawing upon their expertise and accumulated knowledge. The Research Management Cell of Sanothimi Campus has, in recent years, prioritized the publication of *The Educational Journal* with the aim of systematically consolidating the ideas, reflections, empirical studies, and research endeavors of scholars, thereby contributing to the enrichment of the academic discourse.

This issue of the journal presents thirteen research-based articles that explore the authors' knowledge and experiences across diverse fields. These articles have been reviewed by subject-specific peer reviewers and published after necessary revisions and improvements. In shaping the current form of the journal, the contributions of the authors who provided their articles, the scholarly peer reviewers, the campus administration, staff, and other individuals who supported various technical aspects have been very significant. We extend our heartfelt thanks to all.

Editorial team

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Issue and Challenges Faced by Teachers in Using ICT in Teaching Processes

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Abstract

The integration of information and communication technology (ICT) in secondary level education has been increasing rapidly to enhance the teaching and learning processes. However, the implementation of ICT in the classrooms have been facing significant challenges. This study attempts to explore the issues and challenge faced by the teachers in classroom while using the ICT during their teaching and learning activity. Quantitative research design was employed and self-developed five-point Likert scale questionnaire is used as tool to collect the primary data and distributed among selected teachers. Descriptive statistic including mean and standard deviation were applied to analyze the data to access the extend of the challenge. The key findings of this study indicate that the teachers have been facing the multiple challenge and problems to integrated ICT in curriculum during the classroom teaching activity. In addition, the study also found that these challenges are consistent with previous studies. This study also concludes that infrastructure development, technical support, professional training to teacher, administrative support and pedagogical and curriculum alignment are essential to overcome these barriers and ensure effective ICT integration in classroom teaching.

Keyword: *Communication technology, teacher competence, curriculum integration, systemic barriers*

Introduction

Information and Communication Technology (ICT) encompasses a wide array of technological tools and resources employed for the purposes of communication, as well as for the creation, distribution, storage, and administration of information (Diyal & Pandey, 2022). In this digital age, ICT is are significantly impacting many aspects of human life, including education, by providing students with opportunities to acquire and apply essential 21st-century skills. The integration of the ICT is causing notable transformations in teaching and learning across all educational levels (Tosuntaş et al., 2019). Utilization of the ICT within the educational setting holds significant importance as it offers students the chance to acquire skills necessary for functioning effectively in an era driven by information and technology (Khalid, 2009). The ICT in

the teaching-learning process comes with its own set of problems and challenges. Nevertheless, there are certain barriers that can discourage educators from incorporating ICT into their classrooms and hinder their ability to introduce supporting materials via ICT(Salehi & Salehi, 2012). Such barriers encounter by teachers when utilizing the ICT in teaching, including constraints related to time, training, support and resources, confidence, availability of computer hardware and software, as well as competence (Rababah et al., 2012). In the similar way, prominent challenges encountered by teachers when utilizing the ICT tools also included limited accessibility and network connection, schools with limited technical support, lack of effective training, limited time, and lack of teacher competency (Ghavifekr et al., 2016). Incorporating information and communication technology (ICT) into the educational process creates increased possibilities for both teachers and students to collaborate more effectively in a digital era (Salehi & Salehi, 2012).

Problem Statement

ICTs are potentially powerful tools for educational change and reform. When used appropriately, different ICTs are said to help expand access to education, strengthen the relevance of education to increase digital workforce, and raise educational quality by helping make teaching and learning into an engaging active process connected to real life (Rababah et al., 2012; Shafaq et al., 2018). ICT as a teaching aid is more complicated in that it demands more specific skills from the teachers. In addition, it is necessary to align the ICT based tool and technology with the curriculum and pedagogical practices but this is the serious problems to the teachers for utilization of technology in the ground with new challenges. That's why it is so essentials to understand these challenges from teachers' perspectives to developing the practical strategies to support effective integration. Therefore, the objective of this study is to explore the issue and challenges face by teacher while using ICT in teaching activity in classroom and to provide data driven insight that can help future planning form policy to practices for effective integration of ICT to improve the quality of education.

Literature Review

The integration of ICT in education is a main way in facing globalization and it would respond to the type 21st century society that we living in. The use of ICT can play a number of roles in education by changing the teaching and learning process. However, ICT integration is not easy task (Mbodila, 2013). Researchers and educators have employed various obstacles faced by teachers when integrating ICT into their teaching, encompassing different aspects. Teachers held the belief that insufficient technical infrastructure within schools, limited internet accessibility and scarcity of available class time acted as notable obstacles, preventing them from incorporating ICT within their classrooms (Salehi & Salehi, 2012). Inadequate infrastructure with poor internet connectivity, limit number of computer, less accessibility in digital resource are the major barriers to integrated ICT in education (Kafyulilo et al., 2015; Law et al., 2008). Technical issue such as hardware and software failure and less timely technical support are also the problems that are frequently face by teacher while incorporating ICT in teaching process (Buabeng-Andoh, 2012; Hennessy et al., 2010). Beyond the technical limitations, teachers' attitude and competence is another significant problem to adopt the ICT which is direct affecting to acquire the require skill, confidence and motivation (Ertmer, 2005; Jimoyiannis, 2010). Similarly, the primary obstacles identified by Habibu et al. (2012) were inadequate technical resources within schools and limited internet and ICT accessibility, which served as major hindrances to teachers attempting to incorporate ICT into the curriculum. Likewise pedagogical challenges also arise as major barrier and teachers are struggling to integrate ICT in curriculum (Albirini, 2006; Voogt & Roblin, 2012).

Moreover, time limitation and less support for develop digital instructional tool and materials are also further barrier to effective implementation (Kirkwood & Price, 2014). Administrative and systematic issues, such as lack of administrative support and system incompatibilities also serve as significant barriers for providing the training opportunities to the teachers to integrate the ICT with curriculum and also to use for assessment process (Pelgrum, 2001; Tondeur et al., 2008). Factors that limit the use of ICT in teaching-learning process found by Mulhim (2014) are lack of access to ICT, lack of training, lack of time. To offer a concise and streamlined overview of the different challenges related to technology integration can categorized into different category such as infrastructure and resource-related problems, technical and support issues, teacher competence and attitude, pedagogical and curriculum integration difficulties, and administrative or systemic barriers.

Methodology

In this research, a survey research design under the quantitative research method was used. Total 65 secondary level schools' teachers were selected via random sampling method from Kathmandu, Lalitpur and Bhaktapur district. Five-point Likert scale with scaling point from 1 to 5, where 1=SDA, 2=DA, 3=N, 4=A, 5-SDA was used as tool for data collection. The questionnaire was set into the five categories corresponding to the major challenges and barriers faced by teacher while using ICT in teaching. The questionnaire was distributed to the targeted group of the teachers to collect the data. The statistical measures mean and standard deviations of each statement were calculated and compared based on the theme.

Result and Discussion

This section presents a detailed analysis and interpretation of the data collected to explore the issues and challenges faced by teachers in using ICT in the teaching process. Based on the analysis of the items, the discussion is grouped thematically for clarity.

Infrastructure and Resource-Related Challenges

Table 1: Infrastructure and resource related challenges

S. N.	Statement	Mean	S.D.
1.	Lack of up-to-date resource availability	8.25	6.85
2.	Insufficient Number of Computers	11.33	6.51
3.	Insufficient Number of software copy	8.00	6.32
4.	Unsuitable hardware/software	7.75	7.63
5.	Unreliable internet connections	8.00	8.29

The result shows that infrastructure and resource is the significant challenges to effective integration of ICT in education. With the highest mean values (M=11.33), the insufficient number of computers is the most pressing issue, suggesting extensive shortage that affects the majority of educational institutions. Although, the standard deviation (SD=6.51), indicates that some variation in response, suggesting the issue is wide but severity is differed across the context. Unreliable internet connection with the mean values (M=8.00) is also emerged as a major concern. But the standard deviation with the value of (SD=8.29) is the highest variation reflecting considerable inconsistency in the internet accessibility and such variation indicate some institution may have well connectivity, but some other face severe limitation. Similarly, the lack of up-to-date resource with mean and standard deviation (M=8.25 and SD=6.850) and unsuitable hardware and software with mean and standard deviation (M=7.75 and SD=7.63) are also the signification barriers but with high standard deviation shows the unequal distribution of resource. This finding indicate that the issue is not uniformly experience. On the other hands, with the mean of (M=8.00) and lowest

standard deviation with (SD=6.32) for insufficient number of software copy appears to be more consistency share challenge across the respondent. In overall, due to the unsatisfactory infrastructure and technological resource hindering to implement the ICT in education. To address these, investment and equal distribute of ICT resource is crucial to ensure equitable access to ICT tool in education.

Technical and Support Issues

Table 2: Technical and Support Issues

S. N.	Statement	Mean	S. D.
1.	Technical difficulties to access ICT infrastructure.	8.25	7.93
2.	Lack of effective training on the use of ICT in teaching.	8.25	5.62
3.	Less support to solve technical problems	8.25	9.50
4.	Constant technical problems	8.50	5.97

Technical difficulties to access ICT infrastructure, lack of effective training, less support to solve technical problems have identical mean (M=8.25) score, indicating a strong agreement among to respondence and remain a potential and common barrier to effective use of ICT. Although, vary standard deviation among them shows the inconsistency in experience. Less support to solve technical problems also varies widely, as shown by the high standard deviation (SD=9.50), suggesting a wide disparity in the level of technical support available across institutions. Some institutions may have access to responsive support and other institutions may not, reflecting a systemic inconsistency. In contrast, Lack of effective training (SD=5.62), lower standard deviation shows that many respondence have similar experience making it a more uniformly encountered issue. High standard deviation (SD=7.93) on technical difficulties to access ICT infrastructure, pointing to large variation in the level of access. Meanwhile, Constant technical problems, with the highest mean values (M=8.50) and standard deviation (SD=5.97) are ongoing and repeated problems for implementation ICT in Education. This finding suggests that consistent ICT training, accessibility of resource, responsive technical support to overcome constant technical problems are require to implement ICT in teaching process.

Teacher Competence and Attitude Challenges

Table 3: Teacher Competence and Attitude Challenges

S. N.	Statement	Mean	S. D.
1	Lack of confidence to use ICT	7.75	6.65
2	Resistance to change to adopt ICT in teaching practices.	7.75	4.27
3	Less enthusiasm towards using ICT	8.25	5.32
4	Limited technical skills	7.75	4.99
5	Lack of technological competence	8.00	6.68

As lack of confidence to use ICT, Resistant to change and limit technical skill have same mean (M=7.75) reflection a consistent recognition of these challenges. Resistant to change and limit technical skill with lowest standard deviation (SD=4.27 and SD=4.99) point to a common struggle among teachers in adopt

new ICT based technology in teaching process and handling ICT tools effectively. Less enthusiasm towards using ICT with highest mean score (M=8.25) suggesting that a lack of motivation is a significant barrier to ICT adoption in teaching practices.

However, With the standard deviation (SD=5.32), shows the reasonable variability which indicates that the almost teachers are less motivated toward using ICT. Furthermore, the lack of technological competence with the mean score (M=8.00) and the highest standard deviation (SD=6.68), revealing a wide difference in level of digital literacy. This suggests that some teachers may be quite competent, although others teachers are still facing significant difficulties in using technology. In overall, this insight indicating to continuous professional development program, confidence building workshop, motivation and teachers' capacity building strategies are essential to overcome such problems.

Pedagogical and Curriculum Integration Challenges

Table 4:Pedagogical and Curriculum Integration Challenges

S. N.	Item	Mean	S. D.
1.	Lack of time to prepare ICT based instructional design	8.00	5.29
2.	Difficulties to integrating ICT in instruction	10.33	7.57
3.	Difficulty to integrate with curriculum requirements	7.75	8.34
4.	Difficulty to balancing the use of ICT with traditional teaching methods	8.50	5.51
5.	Assessment and evaluation challenges associated with ICT integration.	6.50	6.35

Difficulties in integrating ICT in instruction with mean score (M=10.33), indicting that this is perceived as the most significant challenges. However, standard deviation score (SD=7.57) indicates the extensive variability, suggesting that the severity of the issues is different across the institutions. Difficulty to balancing the use of ICT with traditional teaching methods with the mean score (M=8.50) and standard deviation (SD=5.51) shows that almost teachers are still struggle in balancing between traditional and digital teaching method. Lack of time to prepare ICT based instructional design with the mean score (M=8.00) and standard deviation (SD=5.29), indicate that it is also common problems among most of the teachers and also hindering to integrate the ICT with the curriculum. Difficulty to integrate with curriculum requirements with mean score (M=7.75), and highest standard deviation (SD=8.34), which indicate a signification variation in how well ICT align with the existing curriculum. Lastly, Assessment and evaluation challenges associated with ICT integration, had relatively lowest mean score (M=6.60), indicating that it is less critical issue to compare with other. However, the standard deviation (6.35) still shows the noticeable variation in teacher' experience. In overall, result pointing to the need of professional development training program for enhance technical skill to emphasizing instructional design, assessment technique.

The mean score (M=7.75) for lack of administrative support and the mean score (M=8.00) for system incompatibilities shows the both lack of administrative support and system incompatibilities are notable barrier to effective integration of ICT in education. The lowest standard deviation (SD=4.11) for administrative support suggests a relatively consistent perception among the respondents and the standard deviation (SD=5.48) for System incompatibilities indicate moderate level of variation, that reflect the many respondents encounter such kinds of problems

but some are not. The finding indicates the important of system combability and strong administrative engagement is required.

Administrative and Systemic Barriers

Table 5: Administrative and Systemic Barriers

S. N.	Statement	Mean	S. D.
1.	Lack of administrative support	7.75	4.11
2.	System incompatibilities	8.00	5.48

The current research results align closely with established literature and theoretical models. The challenge encountered by educators in this research are not unique but signify a worldwide trend of obstacles to the integration of ICT in education. These similarities enhance the credibility of the present results and highlight the pressing need for organized initiatives such as infrastructure upgrades, specialized teacher training, and curriculum changes to guarantee the effective implementation of ICT in classroom instruction

Discussion

The finding of this study expose that teachers are face multiple challenges and problems in effectively using ICT in classroom. Lack of essential recourses are the major barrier to effective integration of ICT in school. Less number of computers, Lack of hardware resource, lack and outdated software are the current situation of the many schools. That are the major barrier to implement the interactive teaching and also makes difficulties to access the resource to the students. Unreliable internet connections often restrict the use of inline tools and platform. Such types of problems highly impact to effective use of ICT in the classroom. Less technical support is another significant challenge. Teachers are repeatedly facing the application, system or hardware related problems and they also loss their instructional time as well. Moreover, many training program are also not focus on real technical or real classroom-relevant issue. This leaves teacher underprepare to incorporate ICT into pedagogy meaningfully. So, without proper support, the teacher often fell discouraged from integrating ICT into classroom teaching.

To adopt ICT, teacher skill and attitude play a vital role. Less technological competence such as techno-pedagogical skill prevents many teachers from maximum utilization of digital tool and resource in more effective manner. Teacher without confidant on technology discourage and create fear of failure them to use technology. Teacher belief and internal thinking on the integration is factor for resistant change. Insufficient training and support contribute to law enthusiasm to use ICT in teaching practices. Teacher with the skill and willing to integrate ICT in education often struggle to align the existing curriculum with ICT tool. Many education-oriented system focus on exam based teaching and rote learning, making it more difficult to integrate student centric interactive based learning tool. Less time to redesign lesson plan or develop ICT based activity is another burdened. The lack of appropriate digital models only create confusion to evaluate the student performance effectively in ICT-enhance environments. This is also affecting factor to discourage the effective integration of ICT into classroom.

Weak organizational leadership and less strategic planning at the policy level is another barrier to adopt ICT in education. Unclear policies and less support from school administrator is another barrier to technology integration. Because without recognition from organization create less motivation to innovate. Poor coordinate planning and coordinate mechanism causes ICT initiatives to remain fragment, temporary of dependent on individual effort which is not sufficient in many cases.

On the basis of analysis and discussion, several key points have been found to which help to address such problems and challenge face by teacher while integrating ICT into the instructional process. It is more essential to enhance ICT infrastructure with the increasing the number of functional computer and hardware devices, access to updated software and reliable and high-speed internet access across the school premises to effective use of digital tools. Continuous teacher training should be in high priority and also focus on pedagogical integration of ICT in to instructional activity to building teacher's confidence and competence. Allocated on-time technical support to reduce the disruption is necessary to ensure the timely resolve the technical issue and promoting the smoothly use of ICT in classroom. Training and workshop for teachers are necessity to encourage and develop positive attitude through which resistant to adopt technology can be reduce. Curriculum should be aligned with digital resource so that integration of ICT with curriculum is so easy and that can ensure purposeful use of technology on classroom. Similarly strong support from administrator and active role in enforcing clear ICT policy from policy maker is equally important. Additionally, development and implement of ICT based assessment tool can enhance evaluation process, provide timely feedback and provide more accurate tracking the teaching outcome.

Conclusion

The study focuses on the challenges to integration the ICT in classroom teaching. Insufficient access to the digital resource like computer, updated software, reliable internet access are the major barrier for many schools. However, only addressing to hardware limitation is not sufficient to address these issues. less technical support and less opportunities to professional development is another hinder to integrated ICT in Teaching and learning. Similarly internal factor such as less confidence on digital tool and resistance to adopt the technology are the internal factor to use ICT in teaching for teachers. Although the teachers are often struggle to align ICT tool with pedagogy and curriculum requirements. At the institutional level, less administrative support is the another hinders of effective integration. To effective implementation, infrastructure development, teacher empowerment, administrative support, technical support are highly essential.

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E-pedagogy: Technology Matters in Mathematics Education

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Abstract

Growing culture of internet and technology use in Nepal has introduced new landscape of educational practices. These practices are growing in the form of e-pedagogy: technology integrated teaching and learning activities. In this context, this paper has explained engaged and interactive learning environment in higher mathematics education in Nepal. An action research intervention of VLE (Virtual Learning Environment for Mathematics) was carried out in a cohort of 170 master students in a course Differential Geometry at Central Department of Education, Tribhuvan University, Kirtipur, Kathmandu, Nepal. The instrument used in this study were baseline and end line survey questionnaire, interview-guideline and VLE generated log reports. The collected data were analyzed with descriptive statistics and themes using SPSS and Atas.ti. The results of the study showed that M-VLE as e-pedagogy helped students (a) to increase learning presence anytime anywhere, (b) to enhance personalized learning experience, and (c) to provide timely and recursive learning feedback and support. Therefore, the study concluded that e-pedagogy matters in higher mathematics education for engaged and interactive learning of higher mathematics.

***Keywords**:* VLE, Moodle, e-pedagogy, Mathematics Education, Nepal

Introduction

Common educational practice in higher education in the traditional classroom are classroom lecturer writing on chalkboard/whiteboard. Now a days, this practice has changed due to the growing culture of internet and technology use. Technology integrated pedagogy in the name of e-learning, o-learning, v-learning, m-learning, u-learning, blended learning, hybrid learning, MOOC, SOOC, etc., are emerging (Dhakal & Sharma, 2016). As result, use of laptop, projector, touch-board, e-pen, and different digital resources are becoming a part of pedagogical activities. Use of Moodle (modular object-oriented dynamic learning environment) as virtual learning environments (VLE) both in face-to-face and online mode of education is ever increasing (Johannesen, Erstad, & Habib, 2012). These are short scenarios on how educational technology has been upgraded with Information Communication Technology (ICT) use. This scenario has also seen in Nepal.

In Nepal, students have started to use a range of technological devices like hand-held touch mobiles and high- speed internet. Number of teachers in Nepal are quite familiar to use interactive touch-board. The use of internet and other technology is increasing day by day. In a classroom

survey at Central Department of Education, Kirtipur, 157 (92%) out of 170 students were found that they use internet daily. With this ever-growing use of internet and technology, we as instructor perceived that e-pedagogy is necessary to utilize in our educational practice in higher mathematics education. Therefore, this paper used Moodle as VLE in a face-to-face course Differential Geometry.

Problem Statement

Student learning is a main part of teaching, therefore it is said that "if student has not learned, then there is no teaching"(Ramsden, 1992). Teaching is mass phenomenon in a group of learners from a range of diverse backgrounds (e.g. prior knowledge, learning pace, cultures, and language). With limited face to face hours of classroom teaching, teachers are facing numbers of challenges to address "learn anytime anywhere". The face to face only teaching had caused number of limitations like time constraints, resource constraints, activity constraints, feedback/support constraints, and assessment constraints etc. in this paper, time constraints represent restricted and limited teaching and support hours, resource constraints represent few and limited text books only learning resources, activity constraints represent few or no teaching and learning activities except classroom lectures, feedback and support constraints represent less or no individual feedback for student learning, and assessment constraints represent lack of comprehensive continuous assessment (CCA) for summative ends. With this problem to address, the aim of this paper is to analyze "in what ways VLE can enhance students' learning opportunities in higher mathematics education?"

Literature Review

Internet and web technology has increasingly provided number of supportive pedagogical tools (Yunus, Nordin, Salehi, Amin Embi, & Salehi, 2014). Among various tools, learning management system (LMS) is one. It is for flexible access of learning opportunities (Miletic & Goran, 2016). In this paper, Moodle as an open source LMS (http://moodle.org). Moodle is cloud software. It has a simple and logical interface. User with simple digital literacy can use Moodle for F2F classes, blended classes, flipped classes, online classes and virtual classes. It constitutes constructivist learning framework where both teacher and student can work together and construct their own learning. Some interesting properties of Moodle are: it allows managing and tracking students work like forums, quizzes, questions, glossaries, lessons, questionnaires, wikis, books, chats, etc. Moodle helps to manage learning resources, activities, communication, collaboration, feedback, support and assessment (Johannesen, Ogrim, Pangeni, & Dhakal, 2016). Moodle has number of useful plugin for mathematics like WIRIS and LATEX (Mora, Mérida, & Eixarch, 2011) so that students and teacher both can work with mathematical symbols without any hassle. Therefore, Moodle is used as VLE. VLE allows learner to explorer dynamic and interactive educational contents. For example, student can use GeoGebra applets as learning objects to construct their learning.

In the literature, there are less evidence that has explored the potential of Math specific digital tools in VLE. Therefore, math specific technology GeoGebra and Mathematics are used in VLE to utilize e-pedagogy in higher mathematics education. Therefore, this paper understands e-pedagogy as combination of pedagogical tool Moodle; and mathematics specific tools; GeoGebra and Mathematica. Nepal government, its ministry of Education (MoE) has made number of national policy/plan (e. g. SSRP, SSDP, ICT master Plan). These policies/plans have mentioned that ICT must be use/integrate in all educational sectors and sub sectors. So, there is an urgency to articulate an ICT integrated pedagogy in teacher education programme. However, pedagogical model for ICT integration has not been exposed in Nepalese context, very few empirically tested

and justified model of ICT integrated pedagogy is found, particularly in higher mathematics education. Therefore, ICT integrated pedagogical model with empirical evidence is necessary in Nepalese context.

Theoretical Framework

Instructional design and pedagogy are somehow backed up by learning theories. In this technology enhanced pedagogy, combined implications of behaviorism, cognitivism, constructivism were utilized. Therefore, this paper has used connectivism (Downes, 2005; Siemens, 2005) as theoretical framework. The connectivism as a learning theory is still in discourse but its use has been justified by number of works. For example, technological pedagogical content knowledge (TPCK)(Mishra & Koehler, 2006), professional digital competence (PDC) (Lund, Furberg, Bakken, & Engelien, 2014) both argues that 21st century pedagogy need to go through technology use. This essence has also been exemplified in a work (Johannesen, Øgrim, & Gi\a ever, 2014) saying that PDC is new and additional (in addition to existing) teacher qualification for 21st century teaching where educational environment, pedagogical activities and content knowledge all go through technology use. Therefore, connectivism is considered as theoretical framework. in this paper to analyze VLE pedagogical model.

Connectivism is promoted by Downes and Siemensm (Downes, 2005; Siemens, 2005). According to them, learning occurs through connections within and among networks. According to Siemen, learning is no longer an individualistic activity. Knowledge is distributed across networks. Siemen's has mentioned eight learning principles in connectivism. Among them this study has utilized four principles. These principles are (1) Capacity to know more is more critical than what is currently known, (2) Nurturing and maintaining connections is needed to facilitate continual learning, (3) Ability to see connections between fields, ideas, and concepts is a core skill, (4) Decision-making is itself a learning process. Within these four learning principles, VLE effectiveness was analyzed.

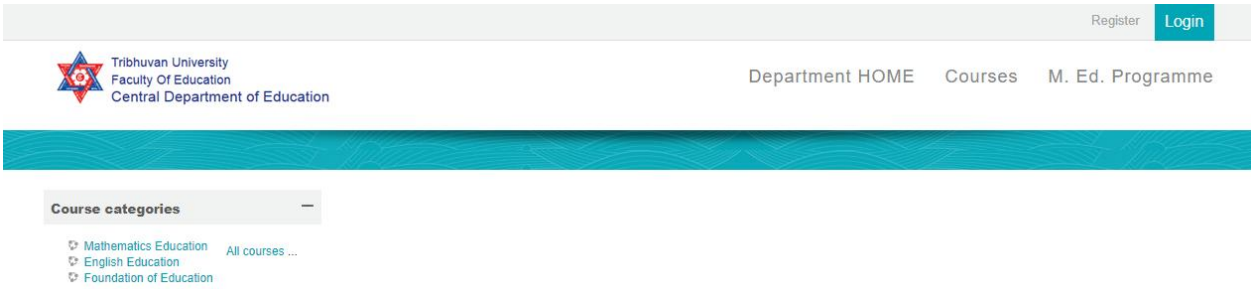
Methodology

This paper is based on an action research intervention study carried out among170 master students in a course DG of Mathematics Education at Central Department of Education (CDED), Tribhuvan University (TU) Nepal during the academic year 2017. These 170 students were in four groups each of 40-45 students. The action research (AR) is suitable to lead desired changes to improve educational practice (McNiff & Whitehead, 2006). The important part of AR is use of self-evaluation (self-reflection) which researcher can utilize. AR allows researcher to change/update outlined plan while implementing the action whenever circumstances require change. This is the main reason why AR is used. In this paper, VLE is action in one hand, on the other hand, data collection, analysis, and reporting are research. In this paper, three phase of AR intervention is described as below.

In the first phase, Moodle is installed as VLE on CDED domain (tucded.edu.np/moodle). The screenshot of the Moodle LMS homepage (www.tucded.edu.np/moodle) is captured above. After VLE setup, DG course was designed in VLE with a welcome section and 16 modular sections. The pedagogical elements in each weekly module were (1) Learning Resources, and (2) Learning Activities. Lecture notes, audios, and videos were developed on the contents of DG according to Gupta, Malik Text book (Gupta & Malik, 2006) and Lipschutz text book (Lipschutz, 2006). Learning resources were designed in VLE using word processing tools: MS, word, Excel, PowerPoint; assistive tools: Camtasia, e-Lacta; and mathematical software tools: Mathematica and Geogebra. Number of digital learning materials in the contents were text, graphics, audio, video,

animation, simulation, and worksheets. The learning activities in VLE were Quiz, assignment, lessons, discussion forum, Glossary and peer graded work.

First intervention: preparations



Second intervention: Orientation

After VLE preparation, a baseline survey was administered in a class. After baseline survey, students were oriented about VLE use. They were informed that the DG course will run in a blended mode, both F2F and online. Students were informed that "the course assignments, activities and course work in F2F delivery will be mandatory" as their course requirements as per the rule of FoE. Online learning activities in VLE will be supplementary and so go in parallel. They were informed that they can access VLE anytime anywhere and whenever they want it.

Facebook group was used to disseminate information on (1) how to login into VLE, (2) how to get username and password (3) how to change password (4) how to set profile picture (5) how to attempt Quiz, (6) how to upload assignments (7) how to use the discussion Forum, (8) how to use the mobile app. Similarly, other necessary updates were disseminated through Facebook group. After M-VLE orientation, students started to login into Moodle.

Third intervention: Implementing VLE

In third phase, DG course was implemented through VLE mode. Based on tutor's self-reflection, audio video resources, explanatory text, group work were emphasized in VLE. Dynamic and interactive applets through mathematics specific technology; GeoGebra and Mathematica were also used in VLE. Lesson format resources and peer-graded assignment activities were also used in VLE. Finally, based on authors' self-reflection pedagogical elements in VLE were designed with seven pedagogical principles; (1) Learning Contents, (2) learning Objectives (3) Learning Resources, (4) Learning Activities/Assignments, (5) Learning Interaction and Discussion, (6) Learning Feedback and Support, and (7) Learning Assessment and Evaluation.

Data collection and Analysis

The data in this study were collected from baseline and end line survey questionnaire, interview-guideline and VLE generated log reports. In the beginning of VLE intervention, baseline survey was administered. At the end of VLE intervention, same survey was administered as end-

line survey. After the survey, eight students were interviewed. These students were from four groups. For each group, two students (1 boy and 1 girl from each group) were taken. The collected data were analyzed using SPSS 18 for quantitative part for descriptive statistics, and Altlas.ti 8 for qualitative part for theme generation.

Results and Discussion

This study was carried out in a in a cohort of 170 students of master level in a course Differential Geometry at central department of education, Tribhuvan University Nepal. As basic demography, there were 70 students. Among them, 126 students have participated both in baseline and end-line survey. Therefore, 126 (111 Boys, 15 Girls) students were considered as study participants. In baseline survey, 46 students (39 Boys, 7 Girls) had their own personal PC. By the end-line survey, this number were increased to 77 students (66 Boys, 11 Girls). For mobile device, the baseline survey showed that, 102 students (90 Boys, 12 Girls) had smart phone. This number were increased to 118 students (104 Boys, 14 Girls) at the end-line survey.

In the following section, results and findings were discovered based on data analysis. The result shows that VLE implementation has embedded F2F teaching learning space into blended online space. VLE environment had connected home, school and online spaces for learning anytime anywhere learning opportunity; varied, individualized and digital learning resources; and timely/recursive feedback and support.

Anytime and anywhere learning opportunity

Using VLE, student experienced anytime anywhere learning opportunity. This study has shown that student used VLE for the following reasons.

Statements	Yes	No
I use Moodle to learn math at home	114	12
I use Moodle to learn math at campus	71	55
I frequently like to login Moodle	74	52

The table given above shows that, student used VLE to learn math at home and school. From Moodle log report (timestat), it is found that student spent two hours in an average (min 10 min, max 28 hours) in Moodle environment. These responses are the example that shown VLE enhanced learning opportunity. In addition, it is found that a student accessed VLE (tucded.edu.np/moodle) from seven different Internet Protocol address. This log database has ensured that VLE has created anytime anywhere learning opportunity. In the literature, it is mentioned that higher the engagement, higher the learning. For example, active participation, interaction, group work, projects work, and formative evaluation are important ways of engagement (Johannesen et al., 2016). Number of research (e.g., Johannesen et al., 2018) has shown that anytime and anywhere learning opportunities can enhance student's participation in various activities. This evidence is exemplified by this study.

Based on student interview, it is found that VLE has ensured flexible learning opportunity. It has offered choices on when, where and how students want to engage in learning on their own autonomy in terms of times and learning material. For example, a *student said,*

> *"using Moodle, I became able to learn accessing online resources like video, and animation using my mobile. I have collected these resources in my pen drive".*

From this data, it is exemplified that student used VLE as an information repository to access their learning anytime anywhere. The Connectivism learning principle highlights that learning is no longer an individualistic activity but occurs across networks. This principle of learning has been established in this study as students started to connect their knowledge across the resources in VLE. VLE helped students to enhance their learning hours beyond face to face

and campus boundaries. Therefore, it is found that VLE matters to create new learning opportunity anytime anywhere.

Varied, individualized and digital learning resources

Learning is an individual process. Learning occurs in different race and pace according to student's individual learning preferences and style. In a literature, it is mentioned that, earning preferences and style demands verities of learning resources. In this study, VLE ensured varieties of learning resources through text, image, audio/video, animation, and simulation, and examples. In the baseline survey, it showed that few students have used digital resources. The But the end-line survey showed that, all student (125 (99%) in internet use, 126 (100%) in math tools) used digital and interactive resources for their learning.

Statements	Baseline	End-line
I use internet and e-resources in my math learning	16	125
I use Math software (e.g., GeoGebra) in my math learning	26	126
I try to learn with audio/video image in my math learning	38	88

The table given above shows that, student started to use varied format digital resources through VLE in math learning. Based on student interview, it is found that VLE has ensured flexible learning opportunity. It has offered choices on when, where and how students want to engage in learning on their own autonomy in terms of times and learning material. For example, a *student said,*

> *"using Moodle, I started my learning on my own way selecting and organizing files like YouTube videos and audios". Another student said that "there are welcome note, syllabus, curriculum, semester plan, learning materials, and notice". Another student said that "I viewed 2D and 3D animated graphs using Moodle which I didn't know and used before, this visible thing made my learning easy".*

The data showed that student became more resourceful with varied resources in their learning using VLE. As connectivism principle mention, decision-making and resource browsing on learning personalization is itself a learning process. Visualization of information is also a learning. In this way, VLE became a panacea to ensure students learning opportunity through varied learning resources.

Timely/recursive feedback and support

Feedback and support are learning escalators. There is a quote, everybody can learn, but learning race and pace may differ (Dror, 2011). This quote showed that, homogeneity and learner similarities rarely exist in classrooms. Therefore, some student may learn fast and some other may learn slow. In this sense, VLE enhanced feedback and support mechanism/opportunity to excel both type of learners. In the baseline survey, it showed that few students received individual feedback and support in learning. But the end-line survey showed that almost all students get individual feedback and support.

Statements	Baseline	End-line
I ask question in Moodle if I don't understand my learning	52	74
I do discussion with teachers and students anytime if necessary in my learning	40	86
Teacher/student often reply answers to my questions in Moodle	24	102

The table given above showed that student started asking questions through VLE in math learning. VLE helped them to use electronic devices for communication, interaction, and

discussion. They started to interact with teachers/friends beside face to face classroom. As consequence, student (102 says yes in end-line survey) get feedback and support in individual level through VLE use. It is found that 2574 text posts and comments were created in M-VLE. This shows that, there were approx. 15 post/comments per student (min, max, SD). These kind of social networking and interaction were otherwise not possible without M-VLE learning platform.

Based on student interview, it is found that VLE has ensured Timely/recursive feedback and support. For example, one student said, *"In Moodle, teacher commented on my file and said thanks to me. I became happy and interested".*

In this way, VLE ensured feedback mechanism through sayback. Using VLE, comments on students' work were sent as feedback message. The connectivism learning principle highlighted that "nurturing and maintaining connections is needed to facilitate student learning. Using VLE students work (few sentences and theme, example, saying, quotation) were re-stated in their feedback text/comment. For example, one student said, *"teacher read our work and says us important things that we miss/do. This helped me in my learning and I feel happy that I am learning".*

Question asking is also found good feedback tools in VLE. In VLE, author asked, 'what do you mean by...?', 'have you considered .....?'. Such type of questioned helped students to bring their understanding to expand students' knowledge and skills. For example, one student said *" seen several videos of tangent plane in YouTube and GeoGebra tube, I became able to understand it, and I myself made GeoGebra animated file of tangent plane".*

The connectivism learning principle magnify that "*capacity to know more is more critical than what is currently known"*. From various quotes presented above, it is found that VLE has enhanced feedback and support mechanism. Appreciation, sayback, learning resources, interactive dynamic applets were found major feedback and support mechanism/tools in VLE.

Conclusion

VLE has provided number of learning opportunities. It helped students to remain engaged and interactive in their learning process anytime anywhere. VLE provided numerous of feedback and support tool/mechanism that otherwise not possible. However, VLE effectiveness is not a stable feature, rather it depends on both (a) teacher's presence and (b) instructional resources design. It is experienced that VLE intervention often need professional update in technology use. Enough utilization of mathematics specific educational software can be a challenge for teachers. The common challenges as experienced by tutor and leaner are instructor's ICT competency, online presence and dedication to course management. In the part, the students' challenges were: internet access and availability of e-device (e.g., mobile, and personal PC). Therefore, if teachers' competency, online presence and students' device and internet access are ensured, then VLE highly matters in higher mathematics education engaged interactive learning.

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Exploring Nepal and Sri Lanka's Grade Eight English Textbooks: Cross-National Insights

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Abstract

A cross-country comparison of textbooks offers valuable insights into educational expectations, pedagogical traditions, and practical approaches in different nations. This study employs document analysis method to compare eighth-grade English textbooks from Nepal and Sri Lanka. The comparison examines composition, content, diversity of genres, and authenticity of the texts to determine the extent of their alignment with national curricula and local contexts. The comparison found that Nepal's textbook, a 191-page single volume with 18 units, has followed a highly structured functional approach where all four language skills include the same sub-units, grammar, and language skills. In contrast, Sri Lanka's two-book system, with a total of 187 pages and 10 units, adopted a richer, diverse activity-based textbook with various exercises. The comparison suggests a focus on uniformity of sub-uits in Nepal's textbook and a wealth of variety in genres (poems, dialogues, and somewhat authentic texts) in Sri Lanka's textbook. Both textbooks include content from local cultures as well as from the global English corpora. The comparison highlights Nepal's preferances for structured textbooks against Sri Lanka's flexible ones. It concludes that these state-produced textbooks will determine the policies and practices for teaching English language in both of the countries.

Keywords: *CDC, Education Publication Department, content, genre, authenticity, single vs. multiple textbooks*

Introduction

In English teaching, a textbook serves a "universal element" (Hutchinson & Torre, 1994, p. 315), and is also considered the necessary tool for classroom teaching that shapes the perspectives of the teachers, learners, and their families toward the subject matter (Huang et al., 2022; Okeeffe, 2013). As Buckingham et al. (1954) opine, textbooks are important classroom resources because they support instruction and can be adapted by teachers of varying degrees of expertise and experience to meet the diverse needs of their students. With its global expansion, English has become the most commonly spoken language in the world, surpassing Mandarin (Ethnologue, 2021; Holloway, 2021), resulting in the rise of English language teaching as a thriving business across the globe. The rising number of English language learners has not only

resulted in more demand for English language teachers but also has led to a booming English textbook industry, with its publishers ranging from the private sector to government agencies, producing and marketing their materials as indespensible classroom resources (Gray, 2010; Squitiery, 2018). Owing to this, the world English textbook market has become a multi-billion-dollar enterprise (Hutchinson & Torres, 1994; Sheldon, 1988).

It is a widely accepted notion that English language teaching requires textbooks as necessary materials in the classrooms. It has been accepted as almost a universal element of English language teaching (Hutchinson & Torres, 1994), and there is a fierce competition between global and local publishers of English textbooks all around the world to capture the market (Gray, 2010a, 2010b). In such conditions, the textbooks published by government agencies not only have to face the challenges of international publication giants but also have to bear the responsibility of addressing issues regarding local concerns (Aliakbari, 2005; Gray, 2010a). After the downfall of colonialism, countries of the third world too began their textbook enterprises, putting their local and national interests forward.

Normally, schools can choose textbooks published by diverse sources in the classroom, and the diverse varieties of such textbooks pose a challenge to the authorities regarding the selection of appropriate textbooks (Rodríguez, 2010). In recent times, the availability of textbooks published by government agencies has made it mandatory for schools in many countries to opt for such books as primary reading texts.

Textbook as Teaching Material

Textbooks are universal in formal mass schooling in most countries (Farrell & Tanner, n.d.). As the most used media in the classroom, textbooks determine teaching and learning in classrooms throughout the world (Smart & Jagannathan, 2018). For Tomlinson (2011), a textbook or coursebook refers to "anything which teachers or learners use to facilitate the learning of a language" (p. 2). It provides a clear framework about the curricular goals and proposed learning outcomes with readymade texts and tasks that not only provide pedagogical guidance to novice teachers but also provide an opportunity for learning autonomy to the learners (Ur, 1999). Textbooks are probably the most effective tools for achieving curricular goals and maintaining uniformity in education. They reduce half of the teachers' workload in the classroom by providing students with comprehensive, ready-made, and pre-structured content that is tailored to their cognitive levels. A good textbook always has appropriate content with proper sequencing, which is why teachers often choose to use it in their classrooms (Harmer, 2007). However, as Harmer (2007) argues, teachers can also change, skip, or add content as they see fit for their target class.

Regarding English textbooks, educational institutions typically have two options for their selection: the first is to select books published in Western countries for authentic input, and the second is to select books published by local publishers. In the latter option, there is a trend of implementing books published by the state agency responsible for textbook publication. Ulla (2019) concludes that most of the teachers are positive toward textbooks published in Western countries. They even use such textbooks as syllabi and guides to content selection, material development, and assessment. He found that most of the teachers think that such books are the primary source for language learning; however, they cannot address the local issues and the home culture. Such books serve as a vehicle for promoting Western commercial culture as a form of new capitalism that turns English into a branded commodity (Gray, 2010a, 2010b).

In various cases, the textbooks prepared for a particular target audience are adopted by an institution that is teaching students with quite different levels of requirements. This mainly happens in cases where institutes adopt books designed and produced in Western countries. In

such cases, the textbook may have an adverse effect in the classroom, i.e., there may be mechanistic learning and content may be less localized. In many cases, such readymade textbooks can limit the responsibilities of the teachers in the classroom (Hutchinson & Torre, 1994) and restrict the creative faculty of students as well. Rather, such books differ from the materials produced to meet the national curriculum requirements (Gray, 2010a, 2010b).

English in Nepal and Sri Lanka: History and Now

Nepal and Sri Lanka are countries in South Asia that host multitudes of cultures, languages, and ethnicities inland (Schulenkorf, 2010; Yadava, 2014). However, both countries have many differences regarding their history, geography, and population. Sri Lanka is a tropical island in the Indian Ocean, whereas Nepal is a landlocked country comprised of the Himalayan highlands and to swampy plains of Terai. Sri Lanka was noticed by Westerners in the early decades of the 16th century when Europeans discovered oceanic routes to India (Rogers, 1990) and the first Portuguese mission led by Ameyda arrived there in the year 1505. Nepal, on the other hand, was acquainted with Westerners after more than a century, when John Cabral travelled to Nepal from Shigatse on his Jesuit mission (Whelpton, 2005). Thus, Sri Lanka got earlier Western exposure; it was exposed to the English language before Nepal. In Nepal, which was never colonized, English education was introduced by the Rana regime in 1854 with the establishment of Durbar High School. In contrast, Sri Lanka was first invaded by the Portuguese, then by the Dutch, and ultimately fell under British colonial rule. During these historical developments, many missionaries opened schools there to teach the Western languages (especially Portuguese, Dutch, and English) (Devapriya, 2019). The first English school in Sri Lanka was established in 1800 by Sir Frederick North, one of the earliest British governors (Samarakkody & Braine, 2005), however, it remained as a language 'desired and feared' (Walisundara & Hettiarachchi, 2016) and there had been a 'love-hate relationship' in the country (Goonetilleke, (year…) as cited in Samarakkody & Braine, 2005).

At present, both Nepal and Sri Lanka are on the way to the development of local varieties of English, such as Nepalese English (Dewan & Laksamba, 2020; Sharma, Joshi, & Teijlingen, 2015) and Lankan English (Meyler, 2009; Samarakkody & Braine, 2005) as the English use is expanding day by day. However, in the global expansion of World Englishes, Sri Lanka falls under the inner circle and Nepal under the expanding circle (Mukminatien, 2012). Yet, there was one similarity in both of the countries regarding the state-fostered one-language policy, i.e., Nepali-only language policy (Phyak, 2013) in Nepal and Sinhala-only in Sri Lanka (Coperahewa, 2009), which they adopted in the 1950s, and both of the countries have recently acknowledged their multilingual reality (Aloysius, 2015).

The status of the English language differs in both countries. In Nepal, English has remained a language of social status since the Rana rule. It was mitigated a bit during the Panchayat system's one-language policy, but again after the 1990s, it spread in the form of the popularity of private-run institutional schools, which have made good fortune marketizing English medium education (Phyak, 2016). On the other hand, English enjoyed the status of the official language in the time of British colonialism, i.e., from 1815 to 1956 in Sri Lanka. After the Sinhala Only Act in 1956, English was replaced by the Sinhala language in all domains. In 1976, the Tamil language was also acknowledged as another official language, and since 2009, English has been re-included in the country's language policy as a link language (Coperahewa, 2009; Sittarage, 2018; Walisundara & Hettiarachchi, 2016).

School System in Nepal and Sri Lanka

Nepal and Sri Lanka both have colonial influences on their school systems. In Nepal, School education is divided into two levels; classes one to eight are the basic level, and classes

nine to 12 are the secondary level. The Sri Lankan school structure is slightly different. They also have two levels: primary and secondary levels. The primary level includes classes one to five, and the secondary level has a further three sub-categorizations, i.e., classes six to nine junior secondary level, classes 10 and 11 senior secondary level, and classes 12 and 13 are in the collegiate level. From this, it is clear that class 8 is the senior-most class of basic level education in Nepal, and in Sri Lanka, the same class comes under the junior secondary level.

English Textbooks in Nepal and Sri Lanka

Recognizing English's global prominence as a vital tool for modernization, education, and influence, Nepal and Sri Lanka have intensified efforts to enhance English language teaching. For this, countries focused on the publication of English language textbooks meeting the requirements of their curricular goals. A textbook has been undoubtedly accepted as an effective material for language teaching, and some serious demerits of imported textbooks from the West have been realized in recent days (Aliakbari, 2005; Harmer, 2007; Gray, 2010a; Tomlinson, 2011; Smart & Jagannathan, 2018). It was in the past, i.e., in the colonial era, most of the countries used to import English language textbooks from Western countries; however, later books began to be published locally, addressing the local contexts and cultures (Aliakbari, 2005; Ulla, 2019). At present, there has been the state-funded publication of textbooks in both countries.

In Nepal, the first textbook policy was quoted in the National Education System Plan (NSEP)1971. Earlier in the 1950s, available books in the market were selected as textbooks, and most of those books used as English textbooks were published in India or abroad. Only the books in the Nepali language were produced in Nepal. Later, after the Panchayat system was launched in the country, the publication of books in Nepal was prioritized (K.C., 1983). The system set new narratives of nationalism, and reform in education was an integral part of it. For this, it was necessary to produce the textbooks articulating the interest of the regime. In the decree, entitled National Education System Plan 1971, it was declared to commission textbook authors for the first time (Ministry of Education, 1971). Since then, the government of Nepal has had a designated textbook policy, i.e., to produce textbooks fulfilling the requirements of the national goals of education. However, after the political changes of 1991, schools were given a waiver to implement the books published by private sector publishers as extra reading texts.

The Government of Nepal issued the first draft of the National Book Policy in 2016. The government-run enterprise Janak Education Material Centre (JEMC) publishes school textbooks in Nepal. The Curriculum Development Centre (CDC) provides camera-ready copies of school textbooks to JEMC six months before the academic session. Then JEMC prints and distributes books from grades six to ten, and books for grades one to five are published by private publishers (Budhathoki, 2016). Those books are distributed to the students of community schools through schools free of cost; however, the central government provides the local bodies with the amount to purchase books, which is later handed over to the schools. Schools buy the books and distribute them to the children (The Act Relating to Compulsory and Free Education, 2018).

Similarly, Sri Lanka also provides free textbooks to all students (Aloysius, 2015). Textbooks are published by the Educational Publication Department. This department produces textbooks in Sinhala, Tamil, and English, and then those books are distributed freely. As Foucault (1972) says, " Every educational system is a political means of maintaining or of modifying the appropriation of discourse, with the knowledge and the powers it carries with it" (p. 277), The education system works as an instrument to condition the people under the certain limitations set by the system. Education in the colonial era was used as a great tool "to exercise power and hegemony over the people of South Asia" (Nair, 2010, p. 32). As Nair (2010) further says;

> Textbooks began to be published to incorporate the colonial ideology and worldview and had a two-pronged objective: to familiarize the British with native customs and traditions and to impress upon the natives the superiority of the colonizer's form of governance as compared to the natives' barbaric and uncouth civilization. These textbooks not only eulogized the political and military achievements of the British but also condemned the nature of the Indian civilization. ... these textbooks highlighted the lack of a national sentiment or a sense of patriotism ...Textbooks were thus used as ideological tools in the colonial state's projection of itself through critical representations of the pre-colonial pasts. (p. 32)

Hence, the colonial interest in the education system and textbooks became outdated after independence, and in the 1950s, textbooks with nationalist narratives began to be published. It was after the independence in 1948, there grew Sinhalese nationalism as a "majority community's attempt to fashion a nation in its image through monopolization of the state and of the consequent emergence of a secessionist ethnonational movement" (Krishna, 1999, p. 31), where a single culture, religion, and language was privileged to other minority ones (Krishna, 1999; Phyak, 2013). Such an ethnocentric identity was reflected in the textbooks, too (Gaul, 2015).

To understand the contemporary implications of these historical and political shifts in textbook production, this environment gave rise to discontent among the minority ethnic communities and led to violent bloodshed from 1983 to 2009, causing the death of approximately 100,000 people (Coperahewa, 2009; D'Souza, 2017; Gaul, 2015;). During the civil war, the rebel LTTE's educational wing published history books of their own, blaming the Sinhalese-led government for concealing the greatness and twisting the history of the Tamils (Nair, 2010).

In light of these contexts in both Nepal and Sri Lanka, this paper aims to compare the eighth-grade English textbooks of Nepal, published by the CDC, and Sri Lanka, published by the Educational Publication Department. The comparison is based on the criteria of size, composition, content, and authenticity of the text. The comparison focuses on questions, such as the size and appropriateness based on the time available to teach it, the chapter division, and the distribution of different language skills, as well as the different language items, exercises, and grammar.

Comparison of Textbooks

In recent years, the focus of educationists, curriculum developers, and education policymakers has inclined towards a comparison of curriculum materials, including textbooks (Huang et al., 2022). While textbooks of each country are supposed to be aligned with the national curriculum, some visible differences in context, expectation, and content are common as they are considerably localized as per the educational policies of the nation (Sun & Li, 2021). Nevertheless, examining similarities and differences between the textbooks for the same subject across countries can provide valuable insights into the education system, educational demand, and pedagogical approaches followed by each country (Huang et al., 2022). Hence, cross-country comparison of textbooks offers a deeper understanding of local policies, global trends, and practices in education, unveiling existing disparities.

Methodology

This study used document analysis to compare government-published grade eight English textbooks from Nepal (English Grade 8, CDC) and Sri Lanka (English: Pupil's Book Grade 8 and Workbook Grade 8, Educational Publications Department). Document analysis reviews existing documents to extract meanings (Bowen, 2009; Gardin, 1973). The comparison targeted four criteria: (1) composition (pages, volumes, units); (2) content (themes, skills, exercises); (3) genre diversity (poems, narratives, prose, dialogues); and (4) authenticity (learner-focused vs. authentic

texts, Harmer, 2007). Data were collected from textbook tables of contents, units, lessons, and introductory sections. Unit numbers, page counts, and activity totals were compared to analyze textbook composition and content. Data from the four criteria were systematically compared using a structured framework to highlight differences in design and pedagogy, ensuring a comprehensive comparison of the textbooks' structure, content, genres, and authenticity.

Results and Discussion

Despite having various geographical, historical, and demographical dissimilarities, Nepal and Sri Lanka both have various similarities. Both of them have multilingual, multicultural, and multiethnic social settings (Aloysius, 2015). Both of them had a monolingual policy in the past, and both of the countries experienced armed conflict in the past; in both of the countries, English is taught as a prominent foreign language. Thus, both countries are striving to address their ELT/EFL concerns in their own ways. For that, the English textbook is to be used as one of the important curricular materials in the class (CDC, 2019) and as a means to develop the critical thinking capacity of the students (Educational Publications Department, 2020).

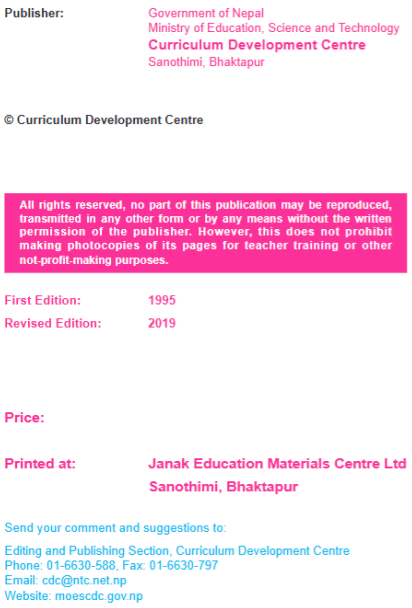
Composition Comparison

This section examines the structural and physical composition of the grade eight English textbooks from Nepal and Sri Lanka, comparing their textbook models, unit organization, preliminary sections, and printing/illustration quality.

Comparing Preliminary Sections. Regarding the preliminary section, English Grade 8 includes only four pages, which include the inner cover page; the page including the information on the publisher, book edition, printing press, and price of the book; Preface; and Table of Contents (CDC, 2019). In the preliminary section, no information about the author(s) of the book has been provided; however, in the preface section, a paragraph has been dedicated acknowledging the contributors in bulk (though some names have been mentioned). The table of contents includes a chart of all the units along with the title, grammar item, and language function dealt with in the particular unit.

Figure 1

The Sample of Preliminary Information Provided in English Grade 8: Customary Information



Publisher: Government of Nepal
Ministry of Education, Science and Technology
Curriculum Development Centre
Sanothimi, Bhaktapur

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Email: cdc@ntc.net.np
Website: moescdc.gov.np

On the other hand, the English Pupil's Book Grade 8 includes 14 pages in the preliminary section. These pages contain the inner title page (p. i), information about reprints, copyright information, ISBN etc. (p. ii), the national anthem of Sri Lanka in Roman (p. iii), a commitment from the side of students to protect the book as a national resource (figure 1) in three languages, Sinhala, Tamil, and English (p. iv), Foreword (p. v), contributors' name list, including their role and full designation (pp. vi-vii), a message to the teacher (titled, A word to the teacher...) (p. viii), contents (p. ix), competency level to be covered in grade 8 (p. ix), the book at a glance (pp. x-xiii), and an appeal to the students (Figure 3) saying not to write anything in the book (xiv).

Figure 2

Commitment From the Side of the Students in the Book (Sri Lanka)

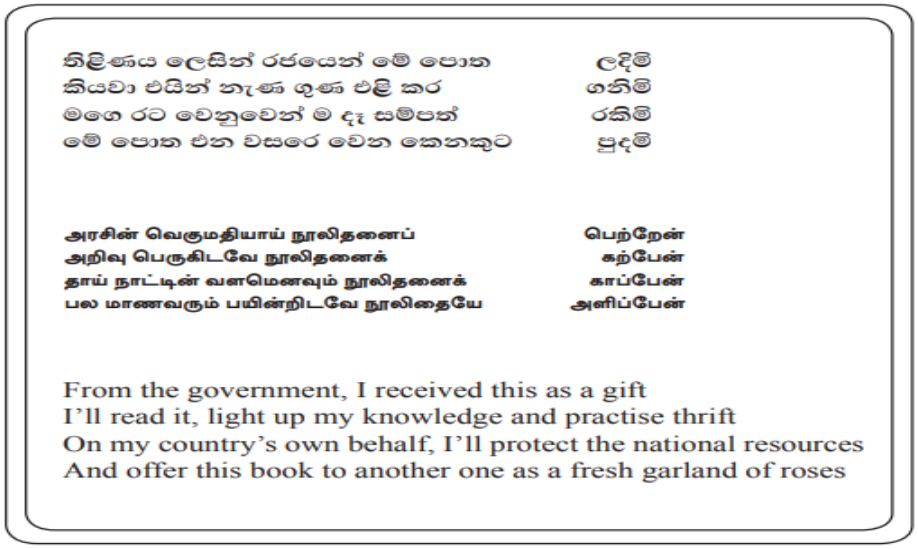
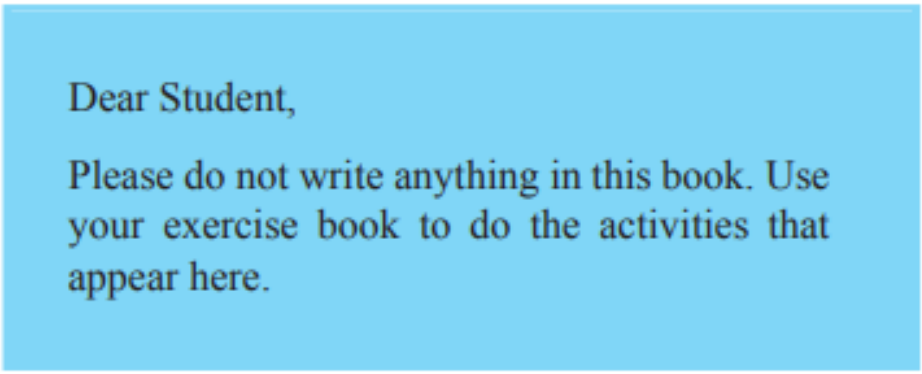


Figure 3

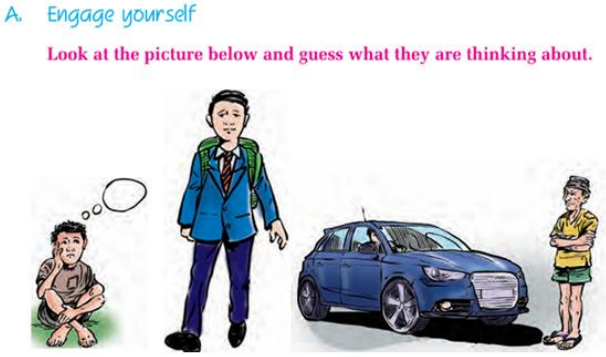
AnAppeal to the Students, Printed in the Book



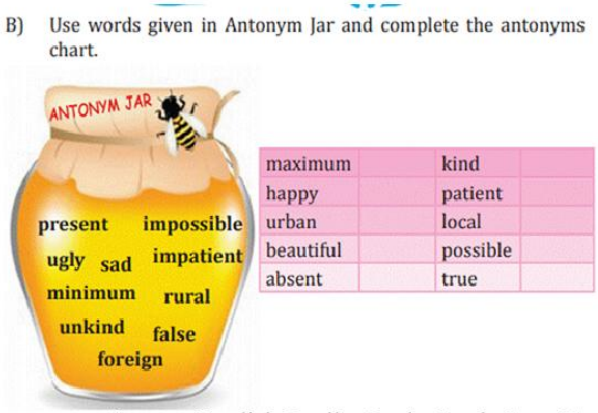
Illustrations and Visual Appeal. Each of these books is multi-colour printed, with abundant illustrations. English Grade 8 primarily uses illustrations to evoke students' thinking and prior knowledge. These visuals appear before and during reading, listening, or speaking activities to get students thinking and to enhance comprehension. In contrast, the English Pupil's Book shows illustrations in a decorative way: just to make simple language activities visually interesting and attractive. Both modes focus on motivation, with the former emphasizing cognitive activation and the latter leaning toward aesthetic support.

Figure 4

Activation vs. Attraction: Illustrations English Grade 8 and English Pupil's Book



Source: English: Grade 8, p. 53



Source: English Pupil's Book, Grade 8, p. 21

Single vs. Dual Textbook Models. Nepal has a single-textbook system for the eighth graders, with 191 pages that contain all the materials required by students. On the other hand, Sri Lanka uses a two-textbook system, i.e., English Pupil's Book Grade 8 (109 pages) which includes reading texts and exercises, and English Workbook Grade 8 (78 pages), which includes more exercises based on the units of the Pupil's Book, in total 187 pages. Nepal's single-book model is contrasted with Sri Lanka's dual-book model, whereby content is spread over two books, only four pages short of Nepal's one book. This organisational variation impacts the ELT material's structure in the two nations.

Systematic Functions vs. Flexible Tasks: Unit and Activity Organization. English Grade 8 is Nepal's English book for eighth-graders. As per the information given, the first edition of this book was published in 1995 and was revised in 2019 (CDC, 2019). There are 18 units in the book with individual unit titles (Table 1), which are further divided into seven identical subunits. These subunits are: *Reading, Time for Grammar, Speaking, Listening, Writing, Project Work,* and *Enjoying Yourself.* Each of the units deals with one language function. These sub-units cover the reading text with comprehension exercises, grammar exercises, and exercises related to language skills. Each of the sub-units is further arranged into smaller activities, i.e., *Engage Yourself, Study, Activate Yourself*, using the Engage, Study, Activate (ESA) model (Harmer, 2007).

Table 1. *Units With Titles, Related Language Functions, and Related Grammar Items in English Grade 8*

Unit	Title	Language Functions	Grammar
1	Travelogue	Asking for information/ Asking for the repetition	Article
2	An Expedition	Asking for directions/ Giving directions	Modals
3	Business and Commerce	Requesting	Present tense
4	Biography	Describing a person	Relative clause 'who'
5	Festivals	Suggesting and advising	Preposition
6	Technology	Getting things done	Causative verbs
7	Journalism	Reporting	Reported speech

8	Dangers of Junk Food	Expressing condition	Conditional sentences
9	Moral Stories	Comparison	Past tense
10	Habits and Behaviour	Expressing degree of probability	Probability modals
11	Games and Sports	Expressing likes and dislikes	Subject-verb agreement
12	District Profile	Giving reasons	Connectives
13	Childhood Memories	Past habits	Expressing degree of probability
14	Graphs and Charts	Expressing abilities	Expressing likes and dislikes
15	Lincoln's Letter	Persuading/ reminding	Voice
16	Fairy Tales	Stating intention/ predicting	Reflective pronouns
17	Forms and Cheques	Answering in brief	Relative clause: things place
18	Dictionary Use	Giving and following instructions	Imperatives

In contrast, English Pupil's Book Grade 8 and English Workbook Grade 8 are the books prescribed in Sri Lankan schools. According to the information, the first print of the book appeared in 2016. Its second print was brought to publication in 2017, third in 2018, fourth in 2019, and fifth in 2020 (Educational Publications Department, 2020). The book is divided into 10 units, and each of the units is also divided into sub-units, as activities. These activities are various tasks to be accomplished by the students. The workbook contains additional activities. Reading comprehension, grammar, vocabulary exercises, listening, speaking, and writing exercises are entwined in the activities.

Table 2. *Number of Activities in Both Books of Sri Lanka*

Units	Unit Title	No. of activities in Pupil's Book	No. of activities in the Workbook
I	Plan the Work: Work the Plan	9	5
II	Winged Friends	9	8
III	Let's be Considerate	9	11
IV	Mother Nature	8	14
V	Between the Miles	10	8
VI	When We are Together	9	6
VII	The World of Children	12	12
VIII	It's a Small World	12	8
IX	On the Top of the World	7	4
X	Beyond the Class	6	4
Total		91	80

In conclusion, Nepal's single textbook system employs the systematic function-based approach with 126 exercises spread over 18 units, each further divided into an identical set of seven exercises across interwoven language skills in a single volume of 191 pages. On the contrary, the Sri Lankan two-book system consists of 187 pages and adopts a more flexible, activity-based system with 171 activities distributed over 10 units, with a concern for variation instead of

consistency. These discrepant organizing patterns stem from diverse pedagogical emphases and signal that Nepal supports predictability while Sri Lanka values flexibility in ELT.

Comparing Activities and Genres

The textbook of Nepal appears to be rich in content when the 18 units of this book are compared with the 10 of the Sri Lankan one (see Tables 1 & 2). But just counting the number of units may not be sufficient to judge the content of the books. Both of the books contain various exercises and activities for all four language skills and grammar, literary input, etc.

Activities in English Grade 8. Each unit of the book is divided into seven sub-units: *Reading, Time for Grammar, Speaking, Listening, Writing, Project work*, and *Enjoy Yourself.* The reading section contains a reading text and exercises related to that, such as comprehension questions, vocabulary exercises, reordering, matching, filling in the gaps, etc. Time for grammar contains exercises like *read and list, making sentences from given word/exponents, synthesizing sentences, identifying correct form, transformation, completing/rewriting sentences, studying and completing tables*, etc. In the listening section, there are activities like *completing a table, filling the gaps, true/false, matching, listen and answer, reordering, listen and do the activities*, etc. The speaking section has exercises like *responding to the given situations, describing the given picture, acting out a dialogue, role play, asking and giving directions, debate, storytelling, phone conversation*, etc. In the same way, the writing section includes activities like *letter writing, leaflet writing, diary writing, writing a description, writing a CV, writing condolence messages, writing news articles, writing a story*, etc. The project work section includes project works related to the title or language function entailed in the unit, and the *Enjoy Yourself* section contains some creative writing, such as poems.

Activities in English Pupil's Book/ Workbook Grade 8. There are 10 units in the book, and the workbook contains additional activities related to the same units. The units are further divided into activities. Everything a student has to accomplish has been kept under separate activities, e.g., the reading text is one activity, and the exercises that follow are separate activities. The subunits are not identical to those in the English book grade 8, however, every unit begins with an activity with a similar title, *act out*, in which a dialogue is given. The dialogue introduces the grammar item to be dealt with in the unit and is furthered by other related activities. Then the grammar item is introduced under the section *learning point*, with a descriptive note, followed by different types of exercises, such as rearranging the jumbled words, filling the gaps, identifying the correct use, and rewriting the sentences. There are other reading activities, which are mostly used to introduce unfamiliar vocabulary items and some general knowledge, too, for making reading fun. Each reading activity is followed by exercises like comprehension questions, matching, rearranging, filling the gaps, true/false, etc.

Table 3. *Activities Across Units*

Activity Type	Description	Frequency / Units	Occurrence
Reading Comprehension	Reading passages, stories, or poems and answering questions	10/10 units	Most Common
Grammar Practice	Activities on tense, prepositions, modals, plural forms, etc.	10/10 units	Most Common
Writing Tasks	Letters, paragraphs, stories, summaries, essays	9/10 units	Most Common

Speaking/Dialogue/Act Out	Roleplay or dialogue-based tasks	8/10 units	Most Common
Vocabulary Exercises	Synonyms, antonyms, compound words, word forms, etc.	7/10 units	Most Common
Listening Activities	Audio-based instructions, announcements, etc.	5/10 units	Moderately Common
Picture-based Tasks	Sequencing, describing, matching to context	4/10 units	Moderately Common
Poetry Reading/Analysis	Reading, reciting, analyzing poetic structure	3/10 units	Moderately Common
Group Work/Discussion	Group-based speaking or writing tasks	3/10 units	Moderately Common
Shadowgraphy/Visual Word Play	Match pictures to word meanings via hand shadow figures	Unit 6	Occasional
Scientific/Tech Reading	News on ICT, inventions, passive voice structure	Unit 8	Occasional
Tourism-focused Writing	Travel diary completion, tourist attraction descriptions	Unit 8	Occasional
Moral/Inspirational Messages	Interviews with achievers or bravery narratives	Units 7, 9	Occasional
Tongue Twisters / Rhymes	Rhyming, articulation, sound matching	Units 7, 8	Occasional

The activities entail language skills other than reading. In most cases, grammar is not separately given but is introduced with a language skill activity. The listening activity is followed by other activities that contain exercises based on listening. Such exercises include listening and rearranging, listening and following the instructions, listening and drawing, answering the questions, matching, etc. Speaking activity is not separately given in every unit. *Time to talk* is an activity where students can practice speaking. Apart from this, there is one activity where students can practice speaking along with the grammar activity. Rewriting sentences and rearranging jumbled words, like guided writing activities, are also included in the book. Apart from this, there are activities like *essay writing, letter writing, and giving heading to the given information*. Vocabulary is introduced in the reading text and boldfaced in many cases. The meanings are provided. There are activities like a crossword puzzle, matching, etc. Another activity related to vocabulary teaching is an activity based on pronunciation. There are some exercises related to the pronunciation of some consonant clusters. Similarly, the workbook contains several further exercises (Table 2). There are also some reading activities, but most of the activities in this book are based on grammar use, description of the pictures, free/guided writing, pronunciation, etc.

Regarding the content of the books, both books are sufficient. However, the Book of Sri Lanka offers more diverse and situated reading texts. Regarding grammar and vocabulary, these are more situationally presented in this book as they are presented practically in the reading or listening text. There are more activities in the workbook for further exercises. On the other hand, the book prescribed in Nepal offers well-organized subunits on other language skills. It is well structured as there are identical subunits.

Genre-Wise Content. Both volumes contain different genres for reading. Some texts are given especially for reading comprehension, while others are for other purposes, i.e., introducing grammar or vocabulary items, reading for enjoyment, input for writing or speaking activities, etc.

Here, genre refers to four macro-level categorizations of the texts. The texts are categorized under Poems, narratives (short stories and anecdotes), Prose (descriptions/ essays/ letters/ news/ speech/ biography), and drama (dialogues too). Table 3 contains the details of the genre in both volumes.

Table 4. *Genre-Wise Reading Texts*

Genre Type	Nepal's Book	Sri Lanka's Books	Remarks
Drama/ Dialogues	6	12	
Narratives (Short Stories/ Anecdotes)	6	7	
Prose (Descriptions/ Essays/ Letters/ Speeches/ News/ Bios)	16	18	
Poems	4	9	

Table 4 shows that Sri Lankan students are offered more reading texts and a greater variety of genres. In Nepal's English book, there are only six dramas/ dialogues, six narratives, 16 prose, and four poems, whereas Sri Lanka's English book contains 12 dramas dialogues, seven narratives, 18 prose, and nine poems. In Nepal's book, there is one drama/ dialogue and one narrative every three units, almost one prose every unit, and almost one poem after every four units. On the other hand, Sri Lanka's book contains more than one drama/ dialogue every unit, seven narratives per 10 units, almost two prose per unit, and almost one poem per unit. Regarding poems, the Nepali book offers poems by Edward de Bono, Joy Galal, and James Reeves. In one of the poems, the writer is anonymous. Similarly, Sri Lanka's book offers poems by Robert Frost, R. L. Stevenson, William Blake, P. J. Grand Band, and five poems by anonymous writers are there.

Authenticity of the Content

Authentic texts are texts "which are not written especially for language learners, but which are intended for any competent user of the language (Harmer, 2007, p. 100).” Most of the reading texts included in the *English Grade 8* (the book prescribed in Nepal) do not give any information about the source from which they are taken. This indicates that those texts are prepared by the authors for this very book. There is a screenshot of some dictionary entries in the last unit, but there is no information given about the source. On the other hand, the *English Pupil's Book Grade 8* (the Book of Sri Lanka), includes some of the texts where their original sources are mentioned. For example, both of the yet most of the reading activities there are compositions of the authors. This shows that the Sri Lankan book contains more authentic reading material. However, as Harmer (2007) further suggests, to maintain a balance between real English and students' capabilities and interests at lower levels, the inadequacy of the authentic texts is acceptable.

Conclusion

This comparative analysis of the eighth-grade English textbooks of Nepal and Sri Lanka found that the English textbooks of Nepal and Srilanka are grounded on their respective educational policies, cultural contexts, and pedagogical priorities. Nepal has adopted a one-textbook policy with 18 units and 191 pages, thereby setting in place an orderly syllabus. The book adopts a functional approach with a uniform subunit structure for all units to cover the four language skills, grammar, and project work (CDC, 2019). This type of syllabus ensures standardization and hence predictability of content, meeting the mandate of the national curriculum. On the other hand, Sri Lanka adopts two textbooks, the Pupil’s Book, having 109 pages, and the Workbook comprising 78 pages with 10 units that follow an activity-oriented approach to teaching and learning. Here, one could expect a rich variety of genres: poems, dialogues, and prose, emphasizing situational texts that are somewhat authentic (Educational

Publications Department, 2020; Harmer, 2007). It stimulates creativity and active involvement through several kinds of exercises.

Both textbooks have incorporated local cultural contents that reflect the pluralistic and multicultural realities of Nepal and Sri Lanka (Coperahewa, 2009; Phyak, 2013); however, both fail to strike a balance between English from local contexts and the international standard of English (Gray, 2010b). Nepal's textbook prioritizes structural consistency and thus might limit genre diversity. The Sri Lankan way is rather flexible and might be engaging enough, but may not be consistent enough to bring about a more standardized outcome (Sun & Li, 2021). These differences reflect different pedagogical philosophies wherein one stresses predictability and systematic progress on pupils' part, and the other focuses on adaptability and exploration (Harmer, 2007).

It was also found that government-sponsored textbooks shaped the policy and practices of ELT, which highlight national educational goals but also concern themselves with local and global linguistic requirements (Foucault, 1972; Nair, 2010). Such a cross-country comparison may be a useful tool for curriculum designers, policymakers, and educators to refine textbook development, so as to tackle inequalities in education and support teachers working in diverse linguistic situations (Huang et al., 2022). Future research may investigate the classroom implementation of these textbooks to reflect the tangible implications of these textbooks on the process of teaching and learning to further improve ELT in various global settings.

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Limbu News Bulletins in Radio Broadcasting: A Study of Present Status and Future Adaptation

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Abstract

Radio, as an audio medium, requires clear and concise scripting. It speaks directly to individuals, creating a personal bond between broadcaster and listener. News and current affairs remain central to radio journalism, and news bulletins play an important role in promoting languages, particularly indigenous or minority ones such as Limbu. However, with the rise of new media and technology, radio listenership has declined. This study examined Limbu news on radio for two purposes: to assess its current state and explore ways it can adapt in a rapidly evolving media environment. Guided by cultural imperialism and technological determinism theories, the research analyzed how dominant cultures and advancing technologies influence minority languages. A multi-method approach was used-15 days of content analysis, along with interviews and observations involving Limbu news listeners, producers, and presenters. Systematic questions explored listenership, popularity, usefulness, and audience feedback. Findings reveal more challenges than opportunities, largely due to declining daily use of the mother tongue and the dominance of new media. Nonetheless, strategic adaptation- embracing the internet and digital platforms- could enable Limbu radio news not only to survive but to expand its reach and relevance.

Keywords: *Radio journalism, Mass communication, News media, Media landscape, Digital generation*

Introduction

Nepal has a rich diversity of ethnic groups and languages, and the Limbu people are one of the prominent indigenous communities, primarily residing in Eastern Nepal. In a country where Nepali is the official language, news in indigenous languages helps keep them alive and vibrant. Nepal has gone through some big political changes. A ten-year Maoist insurgency ended, the monarchy fell, and a new constitution was introduced in 2015. This new constitution brought several key changes, like federalism and more inclusion and rights for indigenous peoples. The 2015 constitution recognizes all languages spoken as mother tongues in Nepal as "languages of the nation" (Article 6). While Nepali remains the official language, Article 7(2) allows provinces to determine one or more languages used by the majority within the state as official languages in addition to Nepali. The Language Commission of Nepal recommended Limbu and Maithili as official languages for Koshi Province (formerly Province 1), in addition to Nepali.

This constitutional provision has provided the legal basis and impetus for state media like Gorkhapatra and Nepal Television to offer content in own languages. Even before the 2015 constitution, Radio Nepal was a pioneer in multi-language broadcasting.

In the era of globalization, every minority language is endangered on the other hand. Limbu language broadcasting has been ongoing for 31 years in Nepal. It can be seen that after Limbu language news and programs started broadcasting on radio stations, the organizations themselves faced various ups and downs, but with a few exceptions, some continued.

"Language attitude and word economy are some of the factors which has made Limbu as an endangered language. Speakers and writers won't find the appropriate words whenever they want to use them. So, they have to opt the code switching or code mixing for their convenience. It is also a fact that middle class educated people concentrate more on dominant international language like English for the employment opportunities as the world is influenced by globalization" (Subba, 2016, p. 143). Radio, formerly a highly effective medium, facilitated extensive interaction, thereby earning it the designation of a public sphere. According to Kharel (2013), Nepal has experienced enormous growth in radio broadcasting since the mid-1990s. This is not only a growth of radio coverage across the country but also a fundamental change in the nature and characteristics of it. In many least developed and developing countries, there is a strong presence of government in radio broadcasting.

"From 1951 to 1997, Radio Nepal was the only one radio station and had more coverage. Transmitters with FM frequency bands became popular in Kathmandu after those protesting against the Panchayat System-a controlled "democratic" model that had the king at the helm of affairs" (Bhattarai & Ojha, 2010, p. 9). Community radios are arguably the most vital players in promoting and preserving indigenous languages such as Limbu, especially at the grassroots. Although they are deeply involved in language promotion, commercial radios, motivated by profit, also contribute. "Community radio is owned and maintained by the community. The legitimacy of the operation of collective goals is also provided by the community itself, and the members of the community communicate freely and actively" (Mainali, 2015, p. 37).

Radio Sagarmatha was a foundation for many other radio stations in community as well as private-commercial sectors. The Constitution of Kingdom of Nepal 2047 BS, National Communication Policy 2049 BS, National Broadcasting Act 2049 BS and National Broadcasting Regulations 2052 BS provided ground for establishing FM radios across the country. The constitutional recognition of linguistic rights has emboldened indigenous communities to demand more content in their mother tongues across all media, including radio. This increased advocacy puts pressure on broadcasters and policymakers to provide such services. Thus, this article has been prepared to discuss the present status and future outlook of Limbu news bulletins being broadcast on radio with such legal validity.

Radio News Bulletin

Radio news is a piece of information on current events and issues broadcasted through radio, which can have certain impacts on the listeners and listeners have curiosity to know about that. A number of news item put together makes a news bulletin. But a bulletin is not just a string of individual news items broadcast at the scheduled time.

The bulletin is a collective form in which the separate news items are brought into a coherent order and some relationship. The radio is often on the air bringing you the latest news every time. No radio programme can be conceived without its component of a news bulletin of general or special interest (Bhatt, 2012). "Since, Radio medium is only to listen, its writing is colloquial. As the content of the radio is purely auditory sound is sufficient for this medium" (Khanal, 2021, p. 102).

Localness is the biggest strength of broadcasting news on local radio is that it gives a station its sense of being truly local. In an increasingly competitive marketplace, news is one of the few things which make a local station sound distinctive and close to you. News from around the corner is often just as important to a listener as news from around the world.

Limbu Language, a Prominent Language of Nepal

"Limbu is an ethnic group of Mongoloid physiognomy inhabiting the area from the east of Arun-river to the eastern border of present Nepal, popularly known as Limbuwan specially after the annexation of the part of Kirata land into Nepal in 1774" (Subba, 1998, p. 12). The Limbu community refers to themselves as "Yakthung" and their language as "Yakthung Pa:n". According to the "Limbu-Nepali-English Dictionary" (2010) compiled by Kainla, the Limbu language is an Eastern Kiranti language of the Himalayan group within the Bodic sub-branch of the Tibeto-Burman family. The Limbu language is fundamentally divided into four linguistic groups based on the major rivers, streams, and difficult hills in the original Limbu settlement areas: Panchthare, Phedappe, Tamarkhole, and Chhathare. The Limbu language is a writing system based on pronunciation. The Limbu language has its own script for expression. It is called 'Kirat Sirijanga Script '(Rai, et al. 2021).

According to the National Population and Housing Census 2021, among the 124 languages spoken in Nepal, the Yakthung/Limbu language is a prominent national language with a long history of written tradition. The number of Limbu mother tongue speakers in Nepal is 3,50,436, which is 1.2% of the total population. The ethnic population of Limbu is 4,14,704, which is 1.42% of the total population. Nowadays, most of the words of different dialects are reflected in dictionaries, stories, novels, plays, poems, movies, radio, internet etc. They are used as synonyms. So, Limbu is a universal language to all the Limbus of the world. The community is losing some of its sub-dialects due to the language shift and language invasion and other factors. The Limbu speakers and writers have to face an acute word economy.

Methodology

For this study, I analyzed 15 days of news, from 17 to 31 August 2024, aired from Radio Nepal Dhankuta for content analysis. I also listened to Limbu news aired from other FM stations during the same period and collected information and ideas. Then, I interviewed Limbu news listeners first, and then the presenters. I listened to 15 news bulletins daily, with each broadcast lasting 7 minutes, aired from 5:52 p.m. to 5:59 p.m. every evening. In this study, I engaged deeply in studying the news content and gathered insights from listeners and presenters. Observation, content analysis, and interview methods were used to collect data for this study. These methods were developed and conducted according to the objective of the study.

Results and Discussion

This study observed that mobile phones are an easy and portable device for radio listening. Initially, it was quite hard to find listeners for Limbu news broadcast on the radio, despite presenters claiming a regular audience still tunes in. The majority of news listeners complained about the use of complicated words and sentences during news presentation. However, they still listen to the radio to gain language knowledge rather than information, admitting they feel ownership while listening. Listeners said they didn't find any effect on their daily life even if they listened to Limbu news regularly, but they agreed that broadcasted Limbu news somehow supports the radio listening habit among Limbu language speakers.

Nowadays, people are not keenly interested in any specific media. The main reason for this situation is the availability of various media options. Radio sets are hard to find in village

areas and also need electricity to be charged. Older people love to listen to the radio, but they don't have easy access to mobile phones and other devices. Radio operators claim they receive positive responses from Limbu news listeners. However, the fact is that the majority of target listeners do not listen to Limbu news, and they don't have much concern about their language development and preservation.

There is no two-way communication between radio and listeners nowadays, as there used to be. Both radio operators and listeners agree on this point; listeners have stopped sending letters and comments to the radio station. Simply listening to the radio is not the main issue; the main issue is whether they perceive the content well or not, or if they are benefiting from the news. Thus, listener's socio-economic condition, education, and awareness level also matter.

It is noticeable that radio is helping to preserve and promote the Limbu language by broadcasting Limbu news daily. However, the major concern is the effect and impact Limbu news is creating. While studying the content, it is hard to easily understand the meaning of translated Limbu news from the Nepali language. Many unused and unusual Limbu words and phrases are being used in Limbu news. Presenters are creating new words themselves instead of making words easier to understand. A single translated word may vary from one radio station to another. There are synonymous words in the Limbu language, but the proper words have not been selected for use in the news. It is true that listeners speak the Limbu language fluently, but the majority of the population does not understand radio Limbu news. Here lies a paradox between the intended message and the received message.

Review of Limbu News Bulletins

Until a few years ago, news and programs were broadcast in Limbu language from many community and commercial radios in former Eastern Nepal. Now, due to reasons such as expensive radio broadcasting, decreasing listeners, and FM bands becoming digitized, only a few countable radio stations are broadcasting news and other materials in Limbu language. Talking about the history of radio broadcasting, formal journalism in the Limbu language began when Gantok Kendra of Akashvani started broadcasting programs in Limbu language twice a week from April 3, 1983.

In Nepal, its formal beginning was made after Radio Nepal Singhadarbar started broadcasting daily Limbu news from Bhadra 1, 2051 BS. The news broadcasting from Radio Nepal Singhadarbar continued until Chaitra 19, 2053 BS. After that, the Limbu language news started broadcasting from Radio Nepal Regional Broadcasting Center Dhankuta from Chaitra 20, 2053 BS, but only news was broadcast.

At the private level, Kirat Yakthung Chumlung, the umbrella organization of Limbu started broadcasting Limbu language programs from HBC FM and Metro FM in Kathmandu Valley from Ashar 7, 2065 BS, and from Saptakoshi FM in Itahari of Eastern Nepal from Ashar 18, 2065 BS. However, all these broadcasts have completely stopped. After that, Koshi FM Biratnagar and many other local FMs in other districts have given some space to the Limbu language, but now the local language programs run on those FMs are also gradually stopping. Programs in mother tongues have stopped even when there is a demand for them on most radios.

In the past, news and programs in Limbu language were broadcast from Koshi FM Biratnagar, Sumhatlung FM Panchthar, Gorkha FM Kathmandu, Eagle FM Panchthar, Ilam FM Ilam, Radio Mangsebung Ilam, Makalu FM Dhankuta, Dhankuta FM Dhankuta, Singhalila FM Panchthar, Saptarangi FM Damak, Taplejung FM Taplejung, and Vijaypur FM Dharan Sunsari, but all Limbu language broadcasts have now stopped.

Sighak (2018) concludes that radio operators claim that they have full support and positive response from Limbu news listeners. But the fact is majority of the target listeners do not listen Limbu news carefully. They do not have much concern about their language development and its preservation. Perhaps they haven't realized the necessity. There is no two-way communication between radio and listeners nowadays as it used to before.

Current Status of Limbu News Bulletins

The two theories, technological determinism and cultural imperialism are strongly affecting the decline of language-based media, particularly in radio broadcasting, for indigenous languages like Limbu. Technological determinism suggests that the nature of new technology is dictating social change. For Limbu news on radio, the argument would be that the inherent nature and widespread adoption of internet-based media will inevitably lead to a decline in traditional radio listenership, regardless of content. If Limbu news doesn't effectively transition to these new platforms, it faces decline. A technological determinist like Marshall McLuhan might argue that the very interconnectedness fostered by the internet (the "global village") inherently prioritizes communication in lingua francas, reducing the practical necessity or perceived value of local languages in a rapidly shrinking world.

"Based on historical experience, it can be said that news is closely related to the most widely used communication technology. After the achievement of democracy, cartoons were included in the mainstream of news. Over time, news started to be presented in Nepal in various forms such as radio, television, online, etc. Nowadays, news can be heard, read or watched from mobile phones. The trend of distributing news through social networks is also increasing in Nepal" (Acharya, 2021, p. 382).

Meanwhile, Cultural imperialism directly contributes to this decline through the domination of global content, shifts in audience preference, economic disadvantage, and brain drain. For Limbu news on radio, this means competing with a deluge of Nepali news, music, and entertainment, as well as global content that might appeal more broadly to listeners, potentially leading to declining listenership for Limbu programs.

As these concepts indicate, it's safe to say that the current state of Limbu news broadcast via radio is dire. Currently, Radio Nepal Provincial Broadcasting Dhankuta, Radio Menchhyayem Tehrathum, Radio Tamor Taplejung, Radio Taplejung and Kabeli FM Taplejung are continuously broadcasting news and programs in Limbu language. These five radio stations are broadcasting Limbu news bulletins from the eastern part of Nepal, and arguably from all of Nepal. Radio Nepal has a history of being the first radio in Nepal and recently transformed into a public service broadcaster.

Radio Menchhyayem is the first radio station in Tehrathum district. This community radio has been broadcasting Limbu news for 18 years since its establishment in 2064 BS, with regular reports, and claims to be the only community radio continuously broadcasting Limbu news for such a long time. Radio Tamor is also the first radio in Taplejung and has been broadcasting Limbu news since its establishment.

Limbu news now is broadcast daily from Radio Nepal Provincial Broadcasting Center Dhankuta from 5:52 PM to 6:00 PM. News in Limbu language is broadcast from Radio Tamor Taplejung at 11 AM and 5 PM daily. Similarly, from Radio Menhhyayem Tehrathum, broadcasts Limbu news daily at 8 AM and 5 PM. Radio Taplejung airs Limbu news at 8 am in the morning but it's not continuous, whereas Radio Kabeli has been continuously broadcasting Limbu news

for three years, with timings at 7:15 AM and 7:15 PM twice a day. These five radio stations are broadcasting Limbu news during prime time.

Content analysis was performed for 15 days of Radio Nepal Provincial Broadcasting Center, Dhankuta. The news produced from this radio station sounds standard in terms of word selection, sentence formation, and the creation of new words during translation. Radio Nepal has three staff members for Limbu news, and they collectively produce news on a rotational basis. They discuss and form new words if they occur. As mentioned earlier, Radio Nepal started broadcasting daily Limbu news from 2051 BS, giving it a long history of three decades. Thus, the standardization of news is obvious, but there are pros and cons.

It was found through content analysis that the news produced by Radio Nepal is standard but not easy for listeners to understand. I found many reasons for this. Radio Nepal broadcasts Limbu news with pure translation, without adding and mixing imported languages. However, listeners speak Limbu by mixing Nepali. It is obvious that daily spoken Limbu language is mixed with Nepali in every Limbu village. Herein lies a contrast between the news delivered by radio and the everyday language of listeners. It seems like listeners are helpless if the radio's motive is to standardize the Limbu language. They listen to Limbu news for many purposes and by guessing what was broadcast in Nepali news just before. Sentences used for news are also lengthy.

Furthermore, this radio prioritizes the Panchthare dialect while writing news, making it difficult for listeners except those from Panchthare to understand the news. Radio Nepal Dhankuta has reporters in all 14 districts in Koshi province. The Limbu news team translates the news sent by these reporters, so there are no boundaries for the types of issues to be translated. Listeners might expect less news as there is no uniformity. Limbu news begins with national news as the first story, primarily related to politics or governmental activities.

Radio Nepal Dhankuta operates with a paperless studio concept, eliminating paper noise during news reading. The presenter prepares news by typing on the computer and then reads it. The presenter reads five to six news items during the 7-minute slot. It is considered that the news presenter should have a bold voice and speed while reading. However, the Limbu news presenter is never seen hurrying while reading the news. They always try to pronounce words and read sentences correctly, which sounds good.

Radio Nepal news is broadcast through FM band, live from digital platforms such as Facebook, mobile apps, and websites. During the content analysis period, no comments or feedback were received. Even the news producers and presenters are hopeless in this regard. They stated in an interview that they are doing their best to promote the Limbu language and serve the listeners, but the listeners complain that they literally don't understand the news.

Future Adaptation: Opportunities and Challenges

Limbu journalism has become an easy medium to bring its grammar and dictionary into practice for the development of the Limbu language and script. This presents the best opportunity for future adaptation. Mother tongue-based journalism is making a significant contribution to the preservation of the Limbu language. However, professionalism is essential here, just as it is in other professions.

"There is a challenge to be oriented towards professionalism to disprove the argument that mother tongue-based journalism is based on tribal sentiments. Investment is needed to make the journalism profession professional and sustainable, and one must also be knowledgeable about technology and management" (Sighak, 2019, p. 39).

I have found many challenges compared to opportunities for the future adaptation of Limbu news bulletins in radio broadcasting. The most important reason, however, is the daily decline in the practice of the mother tongue in daily life. The rapid emergence of new media and technology, especially the internet, is aggravating all the aforementioned reasons behind the crisis of Limbu news bulletins in the present and near future.

Language shift is creating significant challenges for mother-tongue journalism and other linguistic practices, as individuals increasingly prefer speaking Nepali over Limbu, and English over Nepali. This shift often leads to feelings of embarrassment when speaking or writing in one's own language, alongside a perceived lack of employment and opportunities within that linguistic sphere.

One aspect of this issue is related to language contact and policy in educational and institutional settings. Pradhan (2019) explores how state-driven processes of transformation and standardization in Nepal reshape linguistic authority, frequently favoring dominant languages such as Nepali and English over minority ones like Limbu. This prioritization tends to reinforce the use of Nepali and English in public and professional domains, while minority languages like Limbu are marginalized and assigned a lower status. Systematic language shifts foster feelings of inadequacy in mother tongue language, affecting identity and professionalism in fields like journalism. Giri (2010) notes how Nepali and English dominance prompts cornual disconnections and assimilation. Hakala (2014) reports that educational and media polices promoting Nepali diminish the status of language like Limbu, accelerating their decline in both perception and practice.

This study indicates that Limbu news bulletins in radio broadcasting are soon to be closed, except for Radio Nepal. It is uncertain how long Radio Nepal will continue if listenership is almost zero. This requires deep, large-scale research. Limbu news listeners are still there, belonging to different categories. Limbu men or women who are aware of their identity and have a habit of listening to the radio since childhood still listen to Limbu news. Interestingly, they are found to tune into the radio to listen to Limbu news by any means. However, they are very few in number.

Youths and children have no interest in news or in their own mother tongue. They don't enjoy tuning into the radio for news, programs, or any content. They are part of a new generation for a new era. They are busy on social media platforms and are creating their own content. They will directly choose AI platforms for any news, updates, or authenticity. This scenario showcases a crisis in generation transformation.

Conclusion

Currently, it is not easy to attract the digital generation to radio, let alone in their mother tongue. It is essential to create appropriate news content on platforms they prefer and to encourage new generations to listen for the conservation and development of the language being broadcast on radio. For this, it is necessary to formulate policies from the state and concerned stakeholders to operate programs, thereby embracing diversity in unity. Therefore, it is necessary to make the concerned community understand that if the language survives, culture remains alive, and if the culture remains, the ethnicity survives.

Many Limbu youths seem attracted to the journalism profession; however, they often face linguistic problems. Ultimately, the first criterion for a journalist working in their mother tongue is to be proficient and expert in their own mother tongue. It can be easily estimated that the effectiveness of Limbu that started from various broadcasting centers has diminished due to a

lack of regularity. Language cannot be transformed from one generation to another by just one way transmission. Language is not a theory, but a practice. It is for the person who uses it, not for any particular caste. If someone loves his/her mother tongue but don't use it, the result is linguistic death.

This study suggests that radio needs immediate in-house review meetings and internal studies in their coverage area. This will help them realize and figure out their strengths and shortcomings. It would also be beneficial if radio prepared yearly or half-yearly action plans including research. A strong group of human resources working in the broadcasting sector needs to prepare a mechanism that can address younger generations.

In the context of Limbu news bulletins, future adaptation is highly needed to tackle the rise of digital media. This could involve adapting content, such as creating shorter, more shareable audio clips for social media, or longer, in-depth podcasts for on-demand listening.

Another idea is adopting new platforms for streaming broadcasts online, developing mobile apps, and actively using social media. Likewise, investing in new skills by training journalists in digital content creation, social media management, and data analytics is another. Exploring new funding models to support digital infrastructure and content development could be another major idea. These ideas are about being forward-looking and agile to navigate an uncertain future successfully.

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Situation of Cyberbullying in schools: A quantitative study

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Abstract

Cyberbullying occurs using technological device and communication devices through internet and it is the current issue with technological enhancement all over the world. This quantitative study aims to explore the perception of students about cyberbullying, situation, and policy applied by selected schools to counter cyberbullying. This study explores the situation of cyberbullying in six secondary level schools inside Kathmandu districts. Findings of the study reveals that all schools have access of internet and most of the students have mobile phone access. Majority of respondents are aware about the concern of password protection including online safety. However, knowledge on cyberbullying within the online world it limited. Normally, secondary level students are victim of cyberbullying through harassment done using nasty texts messages, videos, social media hacking, fake profiles, etc. One out of three respondents reflected their experience of cyberbullying and most other reported about the cyberbullying faced by their parents. School representative respondent shows their agreement with cyberbullying as a major problem in schools and noted their dissatisfaction towards having no IT policy to counter and prevent such situations. Only 50 percentage schools conduct awareness program in their school about cyberbullying and cybersecurity. Further this study finds out the use of CCTV surveillance system as a major tool to prevent cyberbullying in school. Major challenges leading to limited understanding of cyberbullying in students is due to the lack of parent's awareness and standard curriculum that prioritize cybersecurity. Overall, this study highlights the urgent need for comprehensive and proactive strategies to combat cyberbullying in Nepali schools. And it advocates for integrated educational approaches, robust policies, and enhanced awareness.

***Keywords*:** *Cyberbullying, Situation, IT policy, Prevent*

Introduction

The research entitled with "*Situation of Cyberbullying in School*" describes the current situation, prevention techniques apply by school, and student opinions about cyberbullying. Cyberbullying occurs using technological device and communication devices through internet. Cyberbullying is the current issue with technological enhancement all over the world. The advent of affordable, personal computers and widespread use of web in the 1990s marked a shift in human interaction. Mainly, teenagers are facing cyberbullying from their classmates or strangers while using group chats or private messages. The anonymity feature of Internet is making it possible for people to harass others without facing any consequences (Barkblog, 2019). States have started

passing anti-bullying laws in the wake of Columbine school shooting during 1999 (The Bark Team, 2017).

However, some policies include cyberbullying as offensive activities and other did not. When many teen children started doing suicides the concern towards cyberbullying was brought into the mainstream. During 2007 13-year-old children named Tine Meier committed her suicide due to the reason that her neighbor created a fake profile with name "Josh Evans" in Myspace (The Bark Team, 2017). This unethical activity has been done to harass her which led to her death situation.

Unknowingly Internet is becoming the part of our daily life, and children are also becoming the part of this growth. During 2001 around 17 million adults within the age between 12-17 has been estimated of using internet heavily (Lenhart, 2005; Pierce, 2009). It was estimated that around 97% youth are connected to Internet is today's era (Ybarra & Mitchell, 2004). While this use is educationally valuable but social medias and online chats is becoming the way of committing cybercrimes (Lenhart, 2005). Teenagers are using Internet excessively to get connected with their friends, relatives and new ones (Gross, 2004). Due to the reason of having accessibility to get connected with new friends and stay touch with old one, children are using this in regular basis (Bargh et al., 2002).

Despite having benefits, this unlimited use also leads to some negative situations as well. The reason behind loneliness and increased depression of students can be the unlimited time they spent on internet (Nie & Erbring, 2000). And they spent lots of their time in online space then they can lose their contact with social context which can lead to personal connections and emotions. Such emotional changes in young people can make them more vulnerable to online harms which is now called as cyberbullying (Dennehy et al., 2020; Meneses-Balahibo, 2022). Cyberbullying is defined as the use of technologies to do unethical behavior that can be harmful to others. (Basesly, 2004). It can be done using online medium like websites, messaging, mobiles, e-mails, etc.

The actual nature of cyberbullying is not identified yet which leaves the blur region between bully and victims (Ybarra & Mitchell, 2004; Beran & Li, 2005). Even though cyberbullying normally takes place outside the classroom or school but it can have direct impact on students learning. One study conducted on grade four to eight student reported around half students had been bullied online, over one third has been threatened, and many have received harmful messages (Wiseman, 2011). A recent study conducted in Bhaktapur, Nepal has also revealed that around 58% of children between age eight to twelve were exposed to cyber risk (The Himalayan Times, 2018).

When we evaluate current situation of Nepal, students access to Information and Communication Technology (ICT) has been increased in very high speed. They have faced cyberbullying, game addiction, and inappropriate online interactions. In our country around 65% of population with 84% from urban and 60% from rural have mobile phone access (Dhungana, 2014; CBS, 2012). Further, 51% out of them use different social medias, 7% have computers and 3% have internet access as their home (Republica, 2023). This is growing very fast and this will continue in the future. Nepal government has developed ICT in education master plan 2013-17 with the different mission, vision, goals, and objectives. The mission of the ICT Master Plan is to bridge the digital divide through infrastructural development, professional human source development, and through creation of digital contents for awareness (Ministry of Education, 2013).

Literature review

Cyberbullying is the use of online medias or technological tools to do unethical behavior that can be harmful for others (Basesly, 2004). An educator's guide to cyberbullying and cyber threats (Willard, 2004). Cyberbullying can be done through many ways as it can take different shapes and even in many locations as well. The UNSW (2014) in Australia conducted survey to explore awareness of cyberbullying and the cyber law among young people. Only around two-thirds of the respondent during that survey understood that cyberbullying can be considered as an offensive activity under existing laws (UNSW Australia, 2014). Most of the young people on that survey declared their unawareness about the law of cyberbullying.

Theoretical Framework

This study adopts multiple theoretical frameworks to understand cyberbullying among secondary schools' students in Kathmandu. Social Learning Theory serves as the primary theoretical root for this study. It views cyberbullying as fundamentally learned behavior that can be acquired through observation, imitation and reinforcement (Barlett, 2023). Bandura's framework explains how students learn cyberbullying behaviors (Irmayanti et al., 2023). It can be done through observing parents, peers, media representations, and also by receiving positive and negative reinforcement that shapes their future behavior (Barlett, 2024).

Further, Bronfenbrenner's Ecological System Theory was also used for theoretical grounding of this study. It provides structural framework to understand cyberbullying as a complex phenomenon. And these phenomena can be influenced by multiple environmental systems (Analisah & Indartono, 2018; Gradinariu, 2021). This theory aligns with the study's examination of school policies. It also explores family involvement, and community awareness as interconnected factors. All of which together affects the prevalence of cyberbullying.

General Strain Theory further complements the theoretical frameworks explored earlier (Carter, 2024). It helps explain how academic pressures, social rejection, and failures to achieve goal can lead to the situation of cyberbullying (Li & Peng, 2022). This theory reflects the situation that the student who experience strain are likely to engage in cyberbullying activities. They might alleviate negative emotions or regain control (Al-Badayneh et al., 2024).

The integration those theories identify cyberbullying as the combination of personal learning, environmental system, and stressful situations (Patel & Quan-Haase, 2022). This combination guides understanding of how students learnt cyberbullying.

Methodology

This study follows a quantitative research methodology to understand the perception of students on cyberbullying. Selection of quantitative research helps find trends and patterns on the perception of cyberbullying and later that collected numerical data can be represented through graphs and charts (Ghanad, 2023). The study mainly focuses on "Situation of cyberbullying in school" with the source of questionnaire fillip by grade 11 and 12 students and school representative. The study carried out in Kathmandu district only. The research was carried out from six different schools of Kathmandu district. Purposive sampling was employed to select the research site for this study, which were six schools inside Kathmandu district. The respondents were students of class 11 and 12 students and representative of school. Primary data for this study were collected through closed questionnaire. Secondary data were also collected if there is any policy implemented in selected institution related to cyberbullying. And sampling is the procedure to select actual respondent from total population. All schools inside Kathmandu district can be my research site and all secondary students and principal inside those schools were the participant of

my study. Out of many schools in Kathmandu only six were selected using nonprobability's purposive sampling for this study. stratified sampling was used to select those schools. Among those school grade 11 and 12 students were selected based on active participation and each school principal were selected with purposive sampling method.

Results and Discussion

The findings of the study provide a detailed overview of the situation of cyberbullying in secondary schools within Kathmandu district. It covers student access to technology, their awareness, experiences, reporting behaviors and measures taken by schools.

Student Access to Technology and Awareness of Mobile phone Access

This study reveals that the majority of students have access to mobile phones (89%). Only 11% students reported as having no access to mobile phones. This high rate of mobile access during secondary level education reflects the chance of being communicated with friends and others. They get chance to communicate often without significant restriction from family or school (Figure 1).

Figure 1

Students access to mobile technology

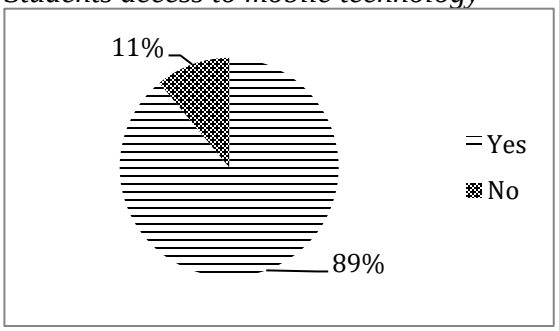
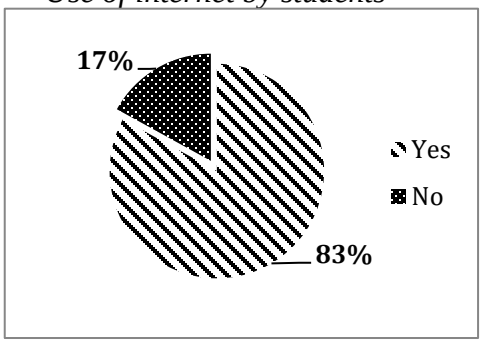


Figure 2

Use of internet by students



Internet Use

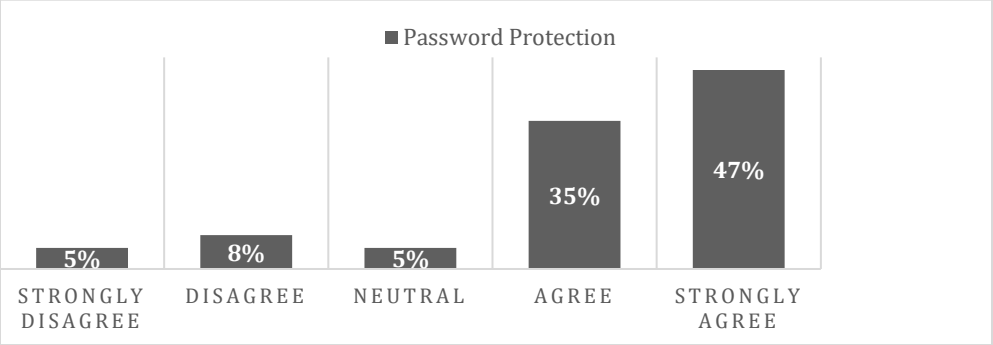
Internet usage is also widespread among the respondents. Only 17% students have no access to internet based on their response. However, most of the student with 83% ration have reported having access to internet at their home and school (Figure 2). This rate indicates a high potential for exposure to online activities. and activities conducted through online platforms leads to the situation of cyberbullying, in both environments.

Password Protection and Information Security

Questions related to password protection and information security awareness were also employed during survey. And large number of populations demonstrated positive attitude towards this. Total 47% respondents reflected their strong agreement with statement and 35% with moderate agreement. Their response shows the positive response towards importance of password protection, use of strong passwords, and avoiding shared passwords. Very small segment of students around 13% presented their disagreement and 5% remained neutral. This finding reflects that even though majority are aware about the security aspects but there are still some students who have not implemented security practices.

Figure 3

Distribution based on Password Protection and information security

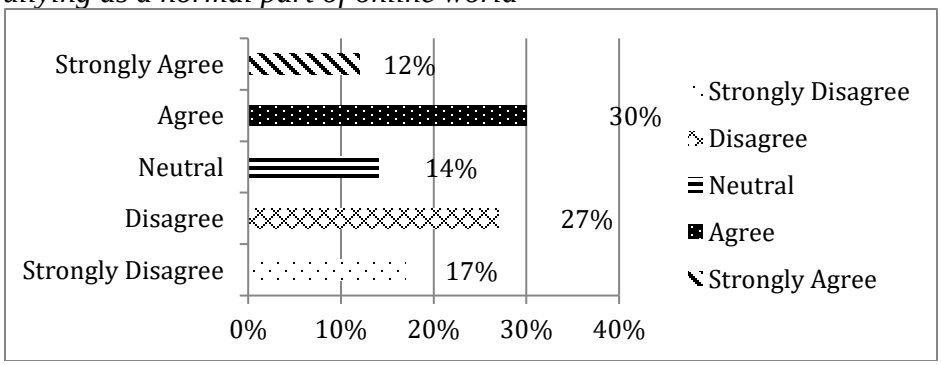


Perception of Cyberbullying as a Normal Part of the Online World

Students have further presented diverse viewpoint on whether cyberbullying is a normal part of online world or not. Total 42% (12% strongly agreed, 30% agreed) considered it as a normal aspect of online interaction. While a combined 44% (17% strongly disagreed, 27% disagreed) believe it is not the normal part of online world. And 14% has remained neutral. This diversity of opinion indicates varied understanding. Some students accept cyberbullying as part of digital space whereas others not.

Figure 4

Cyberbullying as a normal part of online world



Experiences of Cyberbullying Among Students

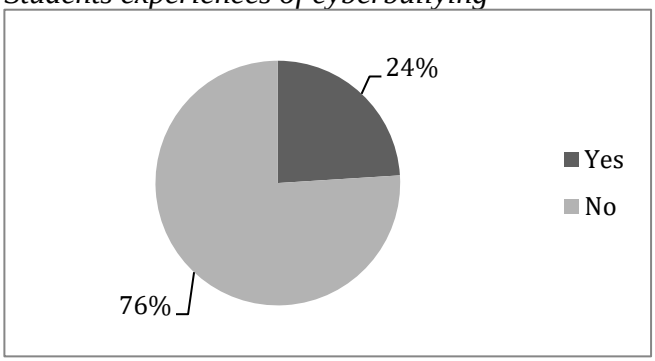
The study found that 24% of respondents had received harassing, mean, or nasty text messages, including potentially sexually suggestive "sexting" messages, via cell phones or other telecommunication devices. The vast majority, 76%, had not. Among those who received such messages, friends (22 respondents) and classmates (21 respondents) were identified as the primary perpetrators. A smaller number of incidents involved neighbours (2 respondents), other individuals (6 respondents), and notably, one respondent reported receiving such messages from a school teacher (Figure 5).

Unauthorized Sharing of Videos or Photos

A smaller but significant percentage of students has reported that their photos or videos has been shared without permission. Total 11.50% students experience the embarrassing or degrading pictures or videos of them shared without permission. Their content was shared with others which embarrassment. The majority, 84.50%, had not experienced this.

Figure 5

Students experiences of cyberbullying



Victimization Through social media

Among the 38 respondents who identified as victims of cyberbullying through social media, Facebook was the most common platform (34 respondents). Further, 10 respondents were through Instagram, and 5 thorough Viber and other social medias. Further, 4 respondents were victim from WhatsApp, 3 were of Snapchat and Twitter had 2 victims. This highlights the social media Facebook as the predominant platform for cyberbullying.

Table 1

Victimization Through social media

Victim of cyberbullying	Social medias						
	Facebook	Instagram	Twitter	WhatsApp	Snapchat	Viber	Other
Yes	34	10	2	4	3	5	5
No	4	28	36	34	35	33	33
Total	38	38	38	38	38	38	38

Creation of Fake Profiles

13% of students reported that someone had created their fake social media profile. Their photos, name, location, and other identifying information's were used to create Facebook, Twitter or Instagram profiles. The majority, 87%, had not experienced this situation. There is a gender disparity in experience of this situation. Male students (16) were having more fake accounts than that of female (7). It reflects the chance of male students being highly affected by cyberbullying.

Unauthorized Access to Social Media Accounts

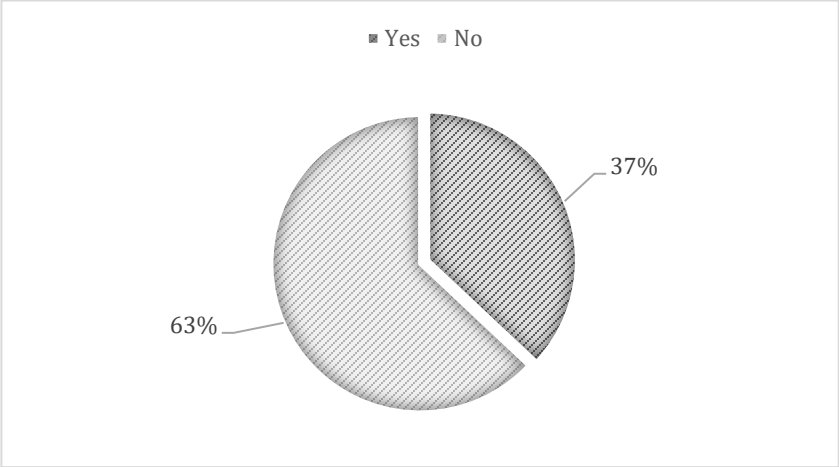
16% of respondents stated that someone had logged into their social media accounts without permission. And they have even sent messages, pictures, or videos to others. The large majority, 84%, had not experienced unauthorized access.

Reporting Cyberbullying Incidents

When faced with cyberbullying, only 37% of students reported the incidents. While the majority of students (63%) did not report it. Among those who did report (65 respondents in total), parents were the most frequently chosen confidants (33 respondents). This is further followed by class teachers (28 respondents) and principals (21 respondents). A smaller number reported to other individuals (9 respondents), and only one respondent has reported to the police. This indicates a strong preference for reporting to close adults and school authorities over law enforcement (Figure 6).

Figure 6

Reporting Cyberbullying Incidents

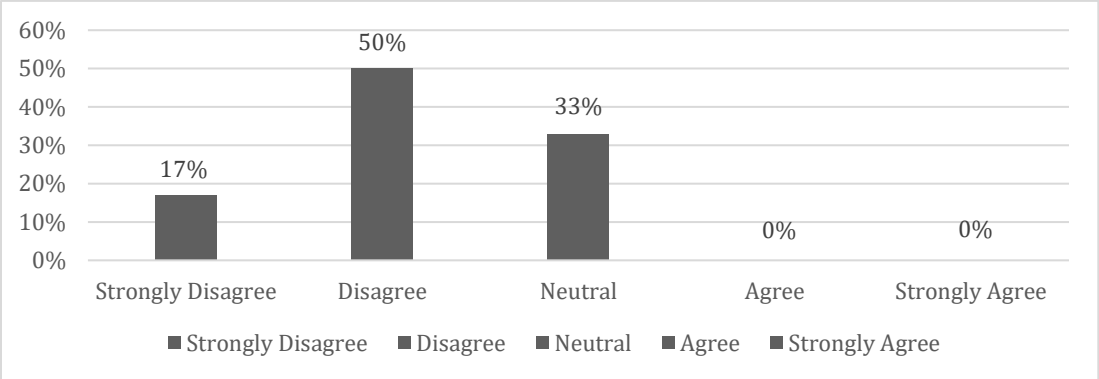


Prevention Technique Applied and Policy Related to Cyberbullying

All six surveyed schools (100%) in the Kathmandu district reported having internet access**.** Most of the school representatives generally agreed that cyberbullying as a major problem in schools. However, the student survey data on this specific question (Cyberbullying is the problem at school) shows a different distribution of student's opinions. Half of the respondents 67% of respondents were disagreed (50% disagree and 17% strongly disagree) on this statement as they don't think cyberbullying as a problem in school. And 33% have reflected their neutral response to that statement. Very few students show agreement towards cyberbullying as a problem at school based on the phrasing of this specific question. This suggests a potential disconnection between the administrations and student's perception.

Figure 7

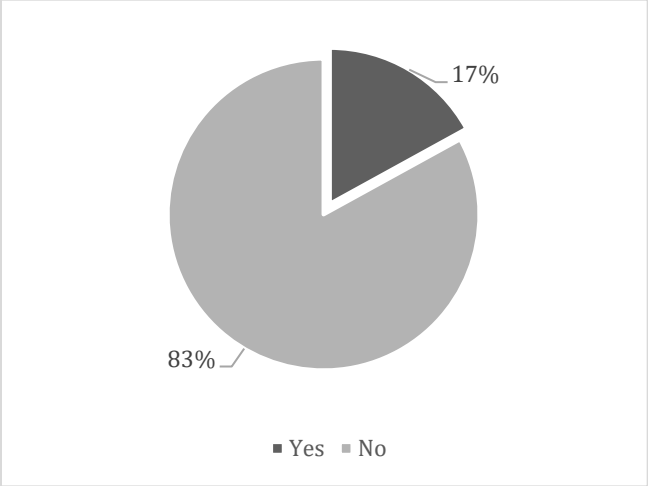
Perception of Cyberbullying as a School Problem



Lack of IT policies regarding cyberbullying is another major challenge in educational organizations. Total 83% schools do not have specific IT policy to counter cyberbullying. And only 17% have such policies implemented to minimize cyberbullying. School representative has expressed their dissatisfaction regarding this policy gap on cyberbullying.

Figure 8

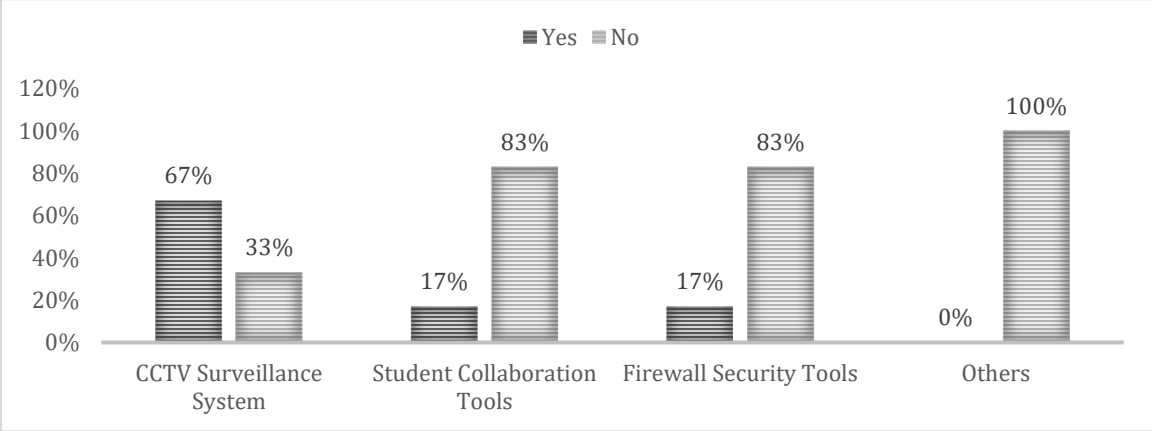
IT Policy to Counter Cyberbullying



Only 50% of the schools conduct awareness programs about cyberbullying and cybersecurity. Frequency is also limited among them as they conduct programs only 1-5 times. However, other 50% schools do not even conduct such programs. It highlights the gap is necessary effort to be taken place by educational institutions.

Figure 9

Cyberbullying Prevention Tools



Further, the CCTV has been found as a major tool utilized for prevention of cyberbullying. It has been implemented by 67% of schools. Beyond that 17% schools utilizes collaboration tools and firewall security tools. Other tools were not reported as being used. This indicates a heavy reliance on a surveillance-based approach over more interactive or technical solutions.

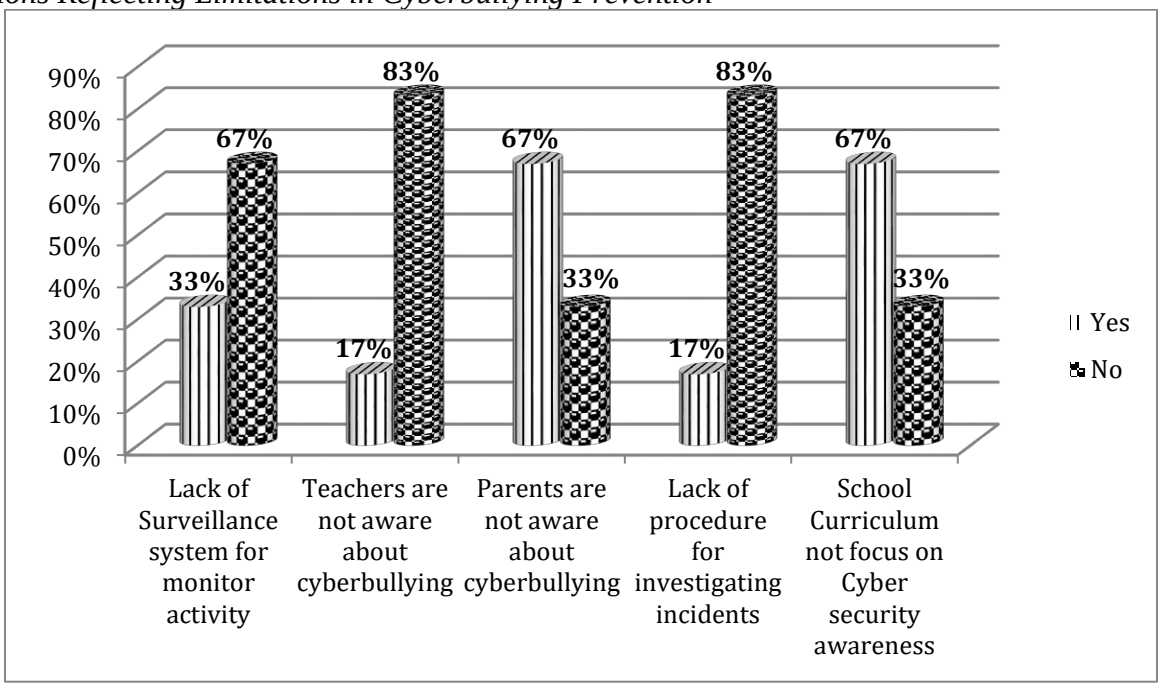
Conditions Reflecting Limitations in Cyberbullying Prevention

This study has identified several aspects as the factor hindering the prevention of cyberbullying in schools. Lack of parental awareness and school curriculum was highlighted as the major challenges. This study demands the school curriculum which prioritize cybersecurity awareness. Total 67% of respondents cited both of these as major challenges. Further, 33% of respondents indicated a lack of surveillance systems for monitoring student and teacher activity.

This has been highlighted as another major barrier in prevention of cyberbullying. Finally, 17% teachers have responded as their unawareness of cyberbullying. This finding reflects external factors like parental engagement and curriculum design as major factor hindering prevention efforts.

Figure 10

Conditions Reflecting Limitations in Cyberbullying Prevention



Discussions

The findings of this study help understanding nature of cyberbullying in secondary school in Kathmandu district. It explores the area that requires targeted interventions. The extensive use of mobile phones (89%) and internet (83%) indicate the basic digital landscape that today's youth live in. Although this pervasive connectivity provides many educational, and social benefits to students, it also inevitably exposes them to a greater cyber risk including cyberbullying (Ma et al., 2024; Venkataraghavan, 2015). According to Hinduja & Patchin (2010) most of the students (98 to 96 %) show knowledge based on general password safety and online safety, with the real issue emerging as being "limited awareness of cyber bullying in the online environment". This discrepancy indicates a need for focused instruction that distinguishes between general online safety and the unique elements and risks of cyberbullying (Martin et al., 2022).

The students' experiences match the world-wide prevalence of cyberbullying. The results show that students in secondary level are suffering from different types of cyberbullying such as receiving mean text messages, videos, hacking of social media, and fake profiles (Suraseth & Koraneekij, 2024). The role of friends and peers as the most frequent source of the harassing text messages is of specific concern. This suggests that it is not just 'anonymous strangers' children have to worry about when it comes to cyberbullying but the people they establish and maintain friendships and relations with, and it is not the underclass that is disproportionately affected. The

finding that more males than females reported that they or someone else had created fake profiles indicates that certain types of cyberbullying might be more likely to target one gender over the other, similar to more general research on gender and cyberbullying victimization (Hanani & Piskin, 2020). That this is the case supports the centrality of Facebook as the predominant site of victimization not just due to its popularity but also because, like others before us, we suggest that it is a primary space where online social activity, and ultimately conflict, plays out and is central to how young people understand their online social worlds (Bularca et al., 2024).

One important discovery is the high proportion (63%) or students who did not report being cyberbullied. This is consistent with other research demonstrating that victims rarely report and presents a daunting challenge for intervention (Kumar & Goldstein, 2020). The causes of this reluctance are likely several, such as distrust over adult interference, fear of retaliation, or the belief that cyberbullying is "normal" or cannot be stopped in any case. The preference to report to parents and class teachers, rather than principals or police indicates the need to establish trusting, supportive relationships between students and this frontline support. If it is believed that parents and teachers are accessible and can offer assistance, the reporting rates may be higher.

At the institutional level, though the school systems are identified as accounting for cyberbullying a serious issue, the examination indicates that they are far behind readiness wise to deal with cyberbullying. Most schools (83%) do not have a dedicated IT policy to help protect students from cyberbullying. This lack of policy leaves a void of an official policy on identification, intervention and discipline and therefore no official framework upon which to base an appropriate response to the incidents (Hall, 2018). And, half of the schools only hold occasional cyberbullying and cybersecurity awareness programs at best people (Duman & Yilmaz, 2021). This severely constrains proactive educational efforts for students to develop an understanding about cyberbullying, internet safety practices, and places to go to for help opportunities.

The overwhelming use of CCTV surveillance systems as the pre-eminent prevention with the majority of schools (67%) was in contrast to the proactive recommended educational approach prevalent amongst campus-based schools in cyberbullying. CCTV might provide a deterrent for physical bullying and evidence of certain incidents, but cyberbullying, which is more complex, often subtler, and extends beyond the school boundaries, is much more difficult to deal with via CCTV (Adrijana, 2024). The fundamental issue contributing to lack of cognizance in students is the absence of parental awareness and the absence of standard curriculum emphasizing cybersecurity (Uludaşdemir & Küçük, 2024). These systemic problems highlight that working within schools may not be adequate and a comprehensive strategy to engage curriculum change with strong parent education is needed. That so few teachers (33% provide reminders regularly) remind students about online safety, and so few schools provide educational material for students and their parents point to particular areas where the school environment could become more supportive and informed (Martin et al., 2022).

For a meaningful response to online bullying, these results, echo its final comments, suggest that prevention is more necessary than punishment (Yurdakul & Ayhan, 2022). This requires a school environment where cyber bullying is absolutely unacceptable. And, it is not tolerated by school leaders, teachers and other staff. Assemblies, talks, anti-cyberbullying posters, and teachers being visible are all things that add to that climate. With incidents being reported prompt investigation is key and the knowledge of discipline and formalised processes is there to support. Intervention programmes cannot be about punishing people only (Kumar & Goldstein, 2020). As there needs to be a counselling for both the victims, and the perpetrators. Ultimately,

the objective of this study is to educate all involved, from students and parents to teachers and the entire community. It guides about what cyber bullying is, how it is executed and the depths of its effects. Also, communication of school policies and pathways to report cyberbullying is important. This enables victims to identify to whom and where to go for help.

Conclusion

The findings of this study reveal the critical gaps in cyberbullying prevention and response mechanisms in secondary schools of Kathmandu districts. Despite the widespread digital connectivity one quarter students experienced cyberbullying. And that was mainly through Facebook with their own friends rather than anonymous. The most of the alarming finding is that most of the victims around 63% never report incidents. This creates an invisible crisis. That student who brings courage to report the bullying they face then most of them choose parents and class teachers. But some student presented their perception about trust deficits in institutional responses.

This study the found the inadequate preparation on cyberbullying for students in school. 83% percentage of schools lack dedicated IT policies on cyberbullying. And 50% lacks hosting awareness program on cyberbullying but very few sessions in a year. Most of the schools (67%) rely on CCTV surveillance only for prevention of unusual activity. However, cyberbullying is the of digital nature that extends beyond physical premises. Few teachers form selected schools (33%) regularly provide online safety reminders. Also, this study highlights inadequate parent awareness and lack of curriculum focus as major issue.

Overall, the findings of this study identify school climate as major part that can enhance the confidence of cyberbullying victims. Collaboration between educational stakeholders and parents is essential to foster such environment. Schools should implement awareness programs and integrate cyberbullying education into curriculum. Also, schools can convey that cyberbullying is unacceptable through assemblies and classroom activities. Education about cyberbullying for students, parents, teachers, and the community is the key. Strong policies and counselling services for both victims and cyberbullies is vital for effective response.

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Enhancing Mathematics Achievement through Motivational Techniques in Community-Based Schools: A Case Study

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Abstract

This underperformance, which stems from a lack of motivation among learners, is worsened by delays in their engagement and overall academic progress in mathematics. The problem addressed in this study is the consistently low mathematics achievement among students in community-based schools, despite various educational interventions. This case study examines the motivational techniques utilized by mathematics teachers at Birendra Secondary School, a community-based school in Nuwakot, Nepal. Through qualitative methods, including classroom observations, interviews, and open-ended questionnaires, the study investigates how these strategies influence student achievement in mathematics. The Findings reveal that employing modern teaching approaches, positive reinforcement, humour, inadequate infrastructure, and strong teacher-student relationships significantly enhance students' motivation and performance. Despite challenges such limited parental involvement, the school demonstrates commendable efforts in fostering a supportive learning environment. This research contribution offers insights into the role of motivation in enhancing mathematics education within these settings, providing recommendations for policy and practice.

Keywords: *achievement, community, mathematics, motivational techniques*

Introduction

Motivation plays an essential role in influencing a student's academic success, especially in mathematics. Since math often demands practice, patience, and tackling challenging problems, motivated students are more likely to stay engaged, put in effort, and persist when faced with difficulties. When students are interested in learning or believe they can succeed, they tend to perform better. Motivation plays a vital role in shaping students' academic performance, especially in mathematics, where sustained engagement and effort are essential for success (Pintrich & Schunk, 2002). At the secondary level, students face increasing academic demands, and their ability to stay motivated directly impacts their learning outcomes. In community-based schools, where resources may be limited and student backgrounds vary widely, effective motivational techniques become even more critical. These techniques not only enhance students' interest in mathematics but also improve their confidence, perseverance, and overall achievement. This case study focuses on Birendra Secondary School in Nuwakot, Nepal, a community-based institution that has shown commendable efforts in promoting motivation among its students, particularly in mathematics. By examining the strategies employed by mathematics teachers at this school, this research aims to analyse how motivational techniques contribute to student success and what factors influence their effectiveness.

The significance of this study lies in its focus on community-based schools, which often operate under challenging conditions compared to private institutions. Despite these

challenges, some community-based schools have managed to foster a supportive learning environment that enhances student achievement. Understanding the motivational strategies such as setting clear learning goals, providing constructive feedback, fostering a growth mindset, encouraging student autonomy, modern teaching approach, strong teacher-students relationship, using real-life applications of mathematics, and recognizing effort and progress, can provide valuable insights for educators, policymakers, and curriculum developers aiming to improve student engagement and academic outcomes in mathematics, especially in similar educational contexts (Ryan & Deci, 2000). Mathematics is in a central position in secondary education due to its foundational role in various disciplines and its application in daily life (Lahey, 2009). However, many students struggle with mathematics, particularly in community-based schools in Nepal, where low achievement levels are commonly observed in national examinations such as the Secondary Education Examination (SEE)where a significant number of students struggle to meet basic proficiency standards (MOE, 2023).

This challenge underscores the importance of identifying effective strategies to enhance student engagement and performance in mathematics. Among the numerous factors influencing academic success, motivation emerges as a critical element that determines students' persistence, effort, and overall learning outcomes (Lehey, 2009). When students are motivated, they are more likely to engage actively in classroom activities, develop a deeper understanding of mathematical concepts, and exhibit greater resilience in problem-solving tasks. Therefore, understanding how motivation influences mathematics learning is essential for improving educational practices in community-based schools.

Motivation, defined as an internal part that activates behaviour toward a goal (Lehey, 2009), significantly affects students' willingness to learn and persist in challenging tasks. In the context of mathematics education, motivation can be categorized into intrinsic and extrinsic types. While extrinsic motivation is provided by external rewards like grades, salary, or recognition, intrinsic incentive arises when students learn for personal fulfilment, curiosity, or sincere dedication to the subject matter (Deci & Ryan, 2000). Both forms of motivation play a role in shaping students' academic behaviours, but fostering intrinsic motivation is particularly important for long-term engagement and deep conceptual understanding in mathematics. Teachers who employ strategies that cultivate intrinsic motivation, such as making lessons relevant, encouraging autonomy, reinforcement, and providing meaningful feedback, can help students develop a positive attitude toward mathematics and improve their performance(Lehey, 2009).

Despite increasing recognition of motivation as a vital factor in student learning, many community-based schools in Nepal still struggle to develop and maintain meaningful motivational practices in the classroom. In these environments, persistent structural challenges such as poorly maintained school infrastructure, shortages of basic teaching and learning materials, over-crowed classroom, undertrained teacher, a lack of learning materials, minimal academic support at home and limited opportunities for teacher professional development make it difficult for both students and teachers to stay engaged and motivated (Panthi, 2020). These systemic issues often lead to monotonous teaching methods, rote memorization, and minimal student interaction, which further reduce intrinsic motivation, especially in demanding subjects like mathematics. Added to these problems are deep-seated socioeconomic disparities among students. While some learners come from supportive home environments that prioritize and encourage education, others come from families facing economic hardship, where schooling may take a back seat to immediate household needs or income-generating activities. For these students, attending school regularly, completing homework, or maintaining focus in class can be significantly more challenging due to responsibilities at home, lack of parental involvement, or issues, like food and transportation insecurity (Neupane, 2011). These realities emphasize that low motivation in mathematics is

not merely a matter of individual attitude but is shaped by overlapping personal, family, and institutional challenges. Addressing this issue requires more than generic motivational slogans; it demands context-sensitive, equity-focused solutions that support both students and teachers within the actual conditions of Nepal's diverse educational landscape.

Birendra Secondary School in Nuwakot serves as a convincing case study for examining motivational techniques in community-based education. Unlike many other schools in similar settings, Birendra Secondary School has demonstrated relatively consistently high SEE pass rates, 89.4% to 95.9 % from 2079- 2081 (Nuwakot District Education Office, 2082),despite operating within a resource-constrained environment. This suggests that the school's educators have successfully implemented strategies that enhance student motivation and engagement in mathematics. Investigating the specific motivational techniques used by mathematics teachers at this school can provide valuable insights into effective pedagogical practices that can be replicated in other community-based institutions. Furthermore, understanding how these techniques align with established theories of motivation, such as expectancy theory and reinforcement theory, can offer a theoretical foundation for refining teaching approaches in mathematics education.

By examining the relationship between motivation and academic achievement in mathematics, this study contributes to the broader discussion on enhancing educational outcomes in community-based schools. Identifying successful motivational strategies not only benefits students but also informs policy and practice by highlighting effective approaches that can be integrated into teacher training programs and curriculum development initiatives. As expectations for quality education in Nepal increase, it becomes increasingly important to ensure that all students, especially those from disadvantaged backgrounds, have access to mathematics instruction that is not only academically difficult but also engaging, supportive, and aimed at improving motivation.

In many rural and community schools, students from low-income families, marginalized communities, or households with limited education often face additional barriers: overcrowded classrooms, undertrained teachers, a lack of learning materials, and minimal academic support at home. These factors can lead to disengagement, low confidence, and poor performance in mathematics. The school demonstrates strong institutional governance through a functional School Management Committee (SMC) and active Parent Teacher Association (PTA) with quarterly SMC meetings and PTA involvement in examination monitoring and academic planning (SMC Minutes, 2080-2081).

Therefore, creating equitable learning opportunities means going beyond equal access to schooling. It requires intentional efforts to make math teaching more interactive, relevant, and encouraging, real-life problem solving, positive feedback, collaborative learning, and recognizing effort to help every student, regardless of their background, feel capable and motivated to learn. Addressing this gap is not just a matter of fairness; it is essential for improving national education outcomes and building a more inclusive system.

This research aims to shed light on how community-based schools like Birendra Secondary School can serve as models for fostering student motivation and enhancing academic success in mathematics. The objective of this study was to examine the current status of motivational techniques promoted by mathematics teachers at Birendra Secondary School, a community-based institution in Nuwakot, Nepal. Given the critical role of motivation in enhancing student achievement, especially in mathematics, understanding the strategies used by educators in this setting is essential for identifying effective practices that can be applied in similar educational environments. The study aimed to explore how these motivational techniques influence students' engagement, interest, and academic performance in mathematics, as well as how they align with established psychological and pedagogical theories of motivation. Additionally, the research sought to gather insights from multiple

stakeholders, including students, teachers, and parents, to obtain a comprehensive understanding of the factors that contribute to student motivation in mathematics education.

To achieve these objectives, the study was guided by the following research questions:

- What motivational techniques are currently used by mathematics teachers at Birendra Secondary School?
- How do these motivational techniques influence students' achievement in mathematics?
- What are the perceptions of students, teachers, and parents regarding the effectiveness of these motivational strategies?

These questions were designed to provide a detailed examination of the motivational strategies employed in the classroom, their impact on student learning, and the perspectives of different stakeholders involved in the educational process. By addressing these inquiries, the study aimed to generate actionable insights that could inform future teaching practices and policy decisions related to mathematics education in community-based schools.

Methodology

This case study used a qualitative descriptive approach, focusing on a community-based secondary school in Nuwakot. Data were gathered through classroom observations, semi-structured interviews, and open-ended questionnaires involving three students of class X, one mathematics teachers, and two parents. A case study was chosen as the most suitable research method because it permits a detailed examination of motivational techniques within a specific educational setting. According to Creswell (2014), case studies are especially valuable when researchers want to understand complex phenomena in real-life contexts. In this case, the study focused on Birendra Secondary School, a community-based institution recognized for its relatively high mathematics achievement despite limited resources. This method allowed the researcher to gather rich, detailed insights into how mathematics teachers apply motivational strategies and how these strategies influence student engagement and learning outcomes.

Birendra Secondary School, Chainpur, Chharghare, has been selected as a case study due to its exceptional and sustained performance in secondary education, particularly in a rural context where resource limitations often hinder academic outcomes. The school exhibits several distinctive characteristics that make it a standout example of educational excellence and institutional effectiveness. First and foremost, it has demonstrated consistently high SEE performance, with a pass rate rising from 89.4% in 2079 to 95.9% in 2081, surpassing both the Nuwakot district average (89.5%) and the national average (83.7%) in the most recent examination cycle (Nuwakot District Education Office, 2081)

This upward trend shows that the school has a culture focused on always getting better and strong leadership in academics. Second, the school has been officially named a Model School (School Improvement Plan (SIP) 2081–2085, p.32), which means it plays an important role in helping students do well and also supports teachers and students in the northern part of the district. Third, the school has a very low failure rate, which went down from 10. 6% in 2079 to just 4. 1% in 2081(Birendra Secondary School report, 2081). This shows how effective the school's special teaching programs, early help strategies, and support for individual students are. All these things together show that Birendra Secondary School is a top-performing, officially recognized, and well-organized school. It makes it a great example to study in detail to find out what works best in education in rural areas. It identifies Birendra Secondary School as a priority model school for serving as a teacher training hub, SEE preparation center, and pilot site for digital learning in the northern cluster of Nuwakot (Nuwakot DEO, 2081, p. 32).

The study included Grade X students, mathematics teachers, parents, and the headteacher of Birendra Secondary School. A purposive sampling method was used to select participants based on their relevance to the research goals. Specifically, Grade X students were selected because they were preparing for the Secondary Education Examination (SEE), an important academic milestone in Nepal. Mathematics teachers were chosen based on their experience and role in instruction, while parents and the headteacher offered additional insights into school policies and student support systems. Three main data collection tools were utilized in this study.

Classroom Observation. Structured classroom observation was conducted to assess how mathematics teachers implemented motivational techniques in the existing time. The observation form was developed based on Weller's (2005) principles of motivation, covering aspects such as classroom environment, instructional methods, and evaluation practices. Observations were carried out over multiple sessions to ensure consistency and reliability.

Semi-Structured Interviews. Semi-structured interviews were conducted with mathematics teachers, the headteacher, students, and parents to gather in-depth perspectives on motivational techniques. Interview guides were prepared based on the research questions and theoretical frameworks, allowing flexibility for participants to express their views freely. Each interview lasted approximately 30–45 minutes and was recorded with the consent of the respondents.

Open-Ended Questionnaires. Open-ended questionnaires were administered to students to collect their opinions on motivational strategies used by their mathematics teachers. These questionnaires allowed students to describe their experiences in their own words, providing valuable qualitative insights into how they perceive and respond to different motivational techniques.

Qualitative data were analyzed using a thematic analysis approach. First, interview recordings and observational notes were transcribed verbatim (Braun and Clarke, 2006). Then, the researcher coded the data by identifying recurring themes and patterns related to motivational techniques, student engagement, and perceived effectiveness. Thematic categories were derived from both the literature review and emerging insights from the data. These themes were organized into broader constructs such as classroom environment, instructional methods, assessment practices, and communication with guardians. Finally, findings were interpreted about existing motivational theories and the research questions to provide a comprehensive understanding of how motivational techniques influenced student achievement in mathematics.

Ethical considerations were strictly followed throughout the research process. Participants were informed about the purpose of the study, and written consent was obtained before data collection. All responses were kept confidential, and pseudonyms were used to protect the identities of participants. Additionally, participants had the right to withdraw from the study at any time without consequences. By employing a rigorous qualitative methodology, this study ensured a thorough exploration of motivational techniques used by mathematics teachers at Birendra Secondary School. The next section presents the findings related to the current status of these motivational strategies in the classroom.

Results and Discussion

The findings from the study reveal that mathematics teachers at Birendra Secondary School utilize a diverse array of motivational techniques to engage students and enhance their learning experience. Key contributing factors include regular diagnostic testing, subject-wise teacher mentoring, active School Management Committee (SMC) involvement, use of NEB model questions, and extra coaching for weak students, infrastructure through SIP grants, initiation of digital learning programs, improvement of teacher retention, and strengthening parental engagement. These strategies encompass various aspects of classroom instruction,

from lesson planning to assessment practices, creating a holistic approach to motivation that supports student achievement in mathematics.

Revision of Lessons

In the classroom observations, the researcher aimed to achieve the goal based on learning theory, supervisor recommendations, personal experience, and a variety of literature reviews. One effective technique involves revising lessons regularly. Teachers often review previous topics to reinforce understanding, making sure students have a strong foundation before introducing new material. This approach not only helps with retention but also boosts students' confidence in their math skills. For example, during classroom observations, it was noted that teachers frequently start lessons with a quick review of the previous day's content, helping students connect new ideas with what they already know. This strategy creates a sense of continuity and makes students feel more secure in their learning process.

Effective Classroom Management

During classroom observations, it was evident that maintaining a well-managed classroom environment is crucial for student engagement. Teachers establish clear expectations for behaviour and consistently enforce rules, which contributes to a safe and focused learning space. Students reported feeling more motivated to participate in discussions and activities when they understood the boundaries and felt respected by their peers and instructors (Ambrose et al., 2010). Another significant aspect of the motivational landscape at Birendra Secondary School is effective classroom management, such as centred on discipline, organization, and routine, strongly supported by decades of educational research. Teachers emphasize discipline and organization, creating a conducive atmosphere, practices maximize instructional time, reduce behavioural disruptions, enhance student focus, and an achievement for learning.

Modern Teaching Methods

The integration of modern teaching methods has transformed traditional mathematics instruction at Birendra Secondary School. Teachers utilize multimedia presentations, online resources, and interactive activities to make complex concepts more accessible and engaging. For example, during a geometry lesson, a teacher employed an interactive whiteboard to demonstrate various shapes and their properties, allowing students to manipulate images and visualize abstract concepts. This innovative approach not only captures students' attention but also encourages active participation, leading to enhanced understanding and retention of mathematical principles.

Use of Instructional Materials

Teachers also place a strong emphasis on the use of instructional materials to illustrate mathematical concepts. Visual aids, manipulatives, and real-life examples are commonly employed by using multimedia presentation, and online resources to make abstract ideas relatable and easier to grasp. During classroom observations, it was noted that teachers would often bring in physical objects, such as measuring tapes or geometric shapes, to facilitate hands-on learning experiences. Students expressed appreciation for these tangible connections to mathematics, stating that they helped them better understand complex topics. The incorporation of such materials not only enhances comprehension but also makes learning more enjoyable, thereby increasing motivation and engagement.

Reward and Punishment Systems

Implementing a system of rewards and punishments is another strategy utilized by teachers to motivate students. Positive reinforcement, such as verbal praise or small incentives, is given for good behaviour and achievements, while clear consequences are established for misbehaviour. Implementing a system of rewards and punishments encourages students to strive for excellence while maintaining accountability (Ryan & Deci, 2000). This balance encourages students to strive for excellence while maintaining

accountability. Students acknowledged that receiving recognition for their efforts boosted their morale and encouraged them to continue performing well.

Research supports using motivational strategies such as autonomy-supportive choices, effort-based praise, and collaborative recognition, which enhance engagement without undermining intrinsic motivation (Ryan & Deci, 2000). Using motivational rewards in the classroom helps foster a positive and engaging learning environment by focusing on encouragement rather than punishment. Instead of saying simply "Good job," teachers used specific, meaningful phrases like *"Great job staying focused during independent work time".* These statements highlight effort, progress, and positive behavior, which study shows boosts students' intrinsic motivation and self-confidence.

Incorporation of Humor and Music

To create a lively and enjoyable learning atmosphere, teachers frequently incorporate humor and music into their lessons. Jokes, songs, and chants are used to lighten the mood and make complex concepts memorable. Humor and music are creative tools used to make complex mathematical concepts more memorable and engaging (Berk, 2002). During interviews, students shared that they appreciated the use of humor, as it made the class more engaging and less threatening. Setting academic content to melody enhances information retention, recall, and engagement, especially in subjects like mathematics that often induce anxiety or disengagement (Hyde, 2007). One teacher described how he would use catchy tunes to teach mathematical formulas, enabling students to remember key concepts through melody. This creative approach not only enhances student enjoyment but also reinforces learning through auditory cues.

Physical Infrastructure

The school's physical infrastructure also plays a significant role in student motivation. The physical and material resources available at Birendra Secondary School, Chainpur, Chharghare, Nuwakot, play a significant role in fostering a positive, engaging, and effective learning environment. Based on school records, field observations, and interviews with teachers and students, the following facilities and resources are provided: The school provides well-ventilated and structurally sound classrooms with adequate lighting and seating for all students, ensuring a comfortable space for instruction. Well-managed classrooms minimize disruptions, maximize instructional time, and create a predictable environment where students feel safe and focused, thereby enhancing learning outcomes (Emmer and Stough, 2001). A library with reference texts, storybooks, and SEE preparation model questions promotes reading and academic support. The computer lab, teaching aids such as a projector, television, and audio player, enhance multimedia-based learning. Visible learning environments where goals, progress, and achievements are displayed help students understand expectations and track their growth (Fisher, Frey, and Hattie, 2018).

Essential facilities, are as clean drinking water, gender-segregated toilets, and a playground, support student health, dignity, and physical development. Access to safe, clean, and well-maintained school facilities is a foundational element of inclusive and effective education. The presence of toilets, clean drinking water, and adequate classrooms at Birendra School emphasizes that even basic infrastructure significantly impacts attendance, dignity, and health, especially for girls (UNESCO, 2014).

Classrooms are enriched with visual learning displays of student work, subject charts, and motivational posters, fostering pride and engagement.
A school garden and green spaces contribute to environmental education and aesthetic value. Additionally, a well-organized school office and staff room provide necessary administrative and professional support, reflecting a holistic investment in both infrastructure and school culture. Students reported feeling more motivated to learn in an environment that feels welcoming and stimulating.

Assessment System

Regular assessments, including quizzes, tests, and projects, allow teachers to monitor student progress and provide timely feedback. With the proper planning, such as weekly mini-quizzes, unit tests at the end of the month, and term-based projects, teachers can maintain an academic calendar. The importance of balanced, continuous assessment for enhancing student engagement, providing timely feedback, and improving learning outcomes (Popham, 2008).This continuous evaluation system keeps students engaged and motivated to improve their performance. Teachers emphasized the importance of formative assessments, which enable them to identify areas where students may need additional support. Students appreciated the opportunity to receive constructive feedback, as it helped them understand their strengths and areas for improvement. This ongoing dialogue between teachers and students fosters a growth mindset, encouraging learners to view challenges as opportunities for development.

School Policy and Communication

Effective communication between teachers, students, and parents fosters a collaborative learning environment. Teachers regularly update parents on their children's progress, encouraging parental involvement and support. During interviews, parents expressed appreciation for the open lines of communication, noting that staying informed about their children's academic performance allowed them to provide more effective support at home. This partnership between school and home creates a cohesive support system that enhances student motivation and achievement.

In summary, the findings indicate that the motivational techniques employed by mathematics teachers at Birendra Secondary School are multifaceted and impactful. Through a combination of revision, effective classroom management, modern teaching methods, instructional materials, reward systems, humor, and music, along with supportive physical infrastructure and assessment practices, teachers create an engaging and motivating learning environment. These strategies not only enhance student achievement in mathematics but also contribute to a positive educational experience for all stakeholders involved.

Impact of Motivational Techniques on Student Achievement

The analysis of the collected data revealed that the motivational techniques employed by mathematics teachers at Birendra Secondary School have a significant positive impact on student achievement. The improvements in student engagement, academic performance, self-efficacy, teacher-student relationships, and parental involvement in mathematics at Birendra Secondary School can be directly linked to specific, evidence-based interventions implemented. The intervention was the weekly mini-quizzes every Friday, where teachers used games and real-life problem-solving tasks to make abstract concepts more accessible and engaging. This innovation was observed to increase participation, especially among previously disengaged students. Additionally, weekly diagnostic quizzes with personalized feedback allowed teachers to identify learning gaps and provide targeted remedial support, while student progress trackers fostered a sense of self-efficacy and ownership over learning.

Teachers also initiated monthly parent-teacher-math student triad meetings, where learners presented their work and set improvement goals, significantly strengthening parental awareness and involvement. Furthermore, the use of peer tutoring, where high-performing students mentored peers in small groups, built collaborative relationships and improved classroom dynamics. These structured, sustained interventions were documented in the school's 2080–2081 SIP (School Improvement Plan) and supported by classroom observations and interview data, and findings on the impact of feedback, self-reported grades, and teacher-student relationships on achievement, thereby justifying the observed positive changes in mathematics learning outcomes (Hattie, 2009). Students reported increased engagement, improved academic performance, enhanced self-efficacy, stronger teacher-

student relationships, and greater parental involvement, all of which contribute to better learning outcomes in mathematics. These findings align with established theories of motivation, demonstrating how intrinsic and extrinsic motivational strategies can shape students' attitudes and behaviours toward learning.

Increased Engagement

One of the most notable effects of the motivational techniques was the heightened level of student engagement in mathematics classes. Students expressed enthusiasm for participating in discussions, problem-solving activities, and hands-on learning experiences facilitated by their teachers. During interviews, several students mentioned that the use of humour, music, and interactive teaching methods made mathematics lessons more enjoyable and less intimidating. For example, one high performer student stated, "When our teacher uses songs to explain formulas, I remember them easily and look forward to math class." Another medium performer student added, "*I used to think math was boring, but now I enjoy solving problems because our teacher makes it fun with games and group activities.*" These responses suggest that incorporating varied instructional techniques effectively sustains students' interest and encourages active participation in the learning process.

Improved Academic Performance

The study found a direct correlation between the implementation of motivational techniques and improvements in students' academic performance. Regular assessments, immediate feedback, and personalized encouragement helped students track their progress and identify areas for improvement. Teachers emphasized the importance of recognizing students' efforts rather than solely focusing on final results, which contributed to a more supportive learning environment. Several students noted that frequent quizzes and assignments, combined with constructive feedback, allowed them to gauge their understanding and build confidence over time. One low-performing student remarked, *"*My teacher gives me extra practice sheets if I struggle with a topic, and that helps me improve my scores." *(Interview with C students on dated 4/7/20)*. Parents also observed improvements in their children's mathematics performance, attributing this progress to the school's proactive approach in reinforcing learning through motivational strategies.

Enhanced Self-Efficacy

Students' belief in their ability to succeed in mathematics, referred to as self-efficacy, was significantly strengthened through the motivational techniques employed by teachers. By setting achievable goals, providing positive reinforcement, and acknowledging incremental progress, teachers helped students develop a growth mindset. During interviews, students frequently mentioned feeling more confident in their mathematical abilities, particularly after overcoming initial difficulties. One student shared,

"At first, I didn't understand algebra, but my teacher kept encouraging me and gave me step-by-step guidance. Now I feel much better about solving equations." Another medium performer student added, "Knowing that mistakes are part of learning makes me try harder instead of giving up." These sentiments reflect the effectiveness of motivational strategies in fostering resilience and perseverance among learners, ultimately contributing to higher academic achievement.

Positive Teacher-Student Relationships

Strong relationships between teachers and students emerged as a key factor in sustaining student motivation and academic success. Teachers at Birendra Secondary School prioritized building trust, empathy, and mutual respect in the classroom. Many students highlighted the supportive nature of their mathematics teachers, describing them as approachable, patient, and genuinely invested in their learning. One student noted,

"*Our teacher always listens to us and explains things until we understand. That makes me feel comfortable asking questions." Another student emphasized the importance of*

encouragement, stating, "When I struggled with geometry, my teacher stayed after class to help me, and that made me want to keep trying." (Interview with A student on dated 3/7/2025). These interactions fostered a sense of belonging and security, encouraging students to take risks in their learning and seek assistance when needed.

Parental Involvement

Teachers maintained regular communication with parents through meetings, progress reports, and informal discussions, ensuring that families remained informed about their children's learning journey. Parental involvement played a crucial role in reinforcing students' motivation and academic progress (Pokhrel, 2008). Parents appreciated being actively engaged in their children's education, as it allowed them to provide additional support at home. One parent explained, who is the mother of a student performing at a moderate level (CGPA 2.0–3.0), as teachers reported that performance updates and home-support advice were most frequently communicated to parents of students who showed potential but needed reinforcement in core subject like mathematics. she receives specific, actionable feedback from teachers. She is part of the school's targeted parental engagement strategy, which includes quarterly progress reports, SMS updates, and face-to-face consultations during parent-teacher meetings.

The school sends updates about my child's performance, and if there are areas needing improvement, the teacher advises us on how to help at home." Another parent who stated, "We talk to our child about their math assignments and celebrate their small victories, which keeps them motivated," is likely a supportive parent. Based on field observations and interview data from the 2081 case study, this parent is aged to be 37. He belongs to a low-income agrarian household, where daily livelihoods depend on subsistence farming. This parent is found emotionally invested in their child's learning journey, taking time to discuss homework and parent-teacher meetings, and creating a positive reinforcement environment at home by acknowledging progress. The findings underscore the profound impact of motivational techniques on student achievement in mathematics. By fostering engagement, improving academic performance, enhancing self-efficacy, strengthening teacher-student relationships, and promoting parental involvement, these strategies collectively contribute to a positive and productive learning environment. These insights highlight the importance of integrating motivational practices into mathematics instruction, particularly in community-based schools where student engagement and perseverance can be critical determinants of academic success.

Challenges and Limitations

Despite the positive outcomes associated with the motivational techniques employed at Birendra Secondary School, several challenges persist that hinder the full realization of these strategies. The lack of adequate mathematics laboratory facilities restricts opportunities for hands-on learning experiences (NCTM, 2009). The school's overall infrastructure is sufficient for effective general education, justifying its model school status. However, the lack of a mathematics laboratory remains a valid and significant limitation for experiential learning in mathematics. Acknowledging this gap does not undermine the school's achievements but highlights an area for targeted improvement, one that aligns with national goals for enhancing STEM education through active, student-centered pedagogy. While teachers strive to make mathematics engaging through interactive methods and real-life applications, the absence of a dedicated mathematics laboratory restricts students' opportunities for hands-on learning experiences.

Laboratories typically provide students with concrete, experiential learning that reinforces abstract mathematical concepts. Without such a facility, teachers must rely primarily on theoretical explanations and limited physical demonstrations, which may not fully capture students' interest or deepen their understanding of complex topics. This

constraint underscores the need for investment in educational infrastructure to support more dynamic and immersive learning experiences.

Another challenge pertains to parental involvement, which, while generally supportive, remains inconsistent across families. Although the school maintains regular communication with parents and encourages their participation in their children's education, some parents remain disengaged due to socioeconomic constraints or limited awareness of their role in academic support. Three sample students noted that while some parents actively assist with homework and encourage academic discussions at home, others lack the time, resources, or educational background to provide meaningful support. One student shared, "Some of my friends don't get help at home because their parents are busy working or don't know much about math." This disparity highlights the importance of equipping parents with strategies to support their children's learning, particularly in households where formal education may not be a priority. Implementing workshops or informational sessions for parents could bridge this gap and strengthen home-school collaboration.

Additionally, one mathematics teacher shared : It's tough to give extra help to students who are falling behind because I have to teach the whole syllabus to everyone. If there were more teachers, we could split the class into smaller groups and give each student the support they need. This teacher is showing a strong desire to do better, which shows they care a lot about their students. The study found that top-performing schools often work at the edge of what teachers can handle, where teachers' personal efforts cover for system weaknesses. These schools are good at getting high pass rates, but they often do so at a cost, like teacher exhaustion, less one-on-one time with students, and fewer chances for new teaching methods (Acharya et al., 2020).

This schools also face challenges like having only one teacher for each subject in Grade X and big class sizes. This makes it hard to give different kinds of instruction or support to each student. But this isn't a contradiction; it shows how teachers in rural areas achieve good results through their hard work and smart ways of adapting, even with limited resources. As teachers said in interviews, it's hard to balance teaching the whole curriculum with giving extra help to students who need it. This doesn't mean the quality is bad. It shows that more teachers and better school structures are needed to keep these successes going without burning out the teachers.

Furthermore, while the school demonstrates commendable efforts in fostering motivation, there is a need for ongoing professional development for teachers. Ongoing professional development for teachers ensures they remain updated on best practices in motivational strategies and mathematics education (Hattie,2009). Continuous training ensures that educators remain updated on best practices in mathematics education and motivational strategies. Although teachers at Birendra Secondary School employ various motivational techniques, some expressed a desire for more formal training on innovative teaching methods and student engagement strategies. Math's teacher mentioned,

"I try my best, but sometimes I feel stuck with the same approaches. Learning new ways to motivate students would help us adapt to changing classroom dynamics." Providing access to workshops, using GeoGebra, mentorship programs, and collaborative teaching forums could empower educators to refine their instructional practices and sustain student motivation effectively.

These challenges and limitations illustrate the complexities of implementing motivational strategies in a community-based school setting. Addressing these issues requires a multifaceted approach that includes infrastructure development, enhanced parental engagement, staffing adjustments, and continuous teacher training. Overcoming these obstacles will be essential in maximizing the effectiveness of motivational techniques and ensuring equitable opportunities for all students to succeed in mathematics.

Conclusion and Recommendation

The findings of this case study underscore the critical role of motivational techniques in enhancing student achievement in mathematics within community-based educational settings. The study reveals that when teachers prioritize student engagement, employ modern teaching methods, and foster positive relationships, students are more likely to succeed academically. The motivational strategies identified, such as revision of lessons, effective classroom management, use of instructional materials, NEB Model questions, reward systems, incorporation of humor and music, and regular assessments, include extra coaching for weak students. collectively contribute to a supportive learning environment that nurtures student motivation and academic growth. These insights provide valuable implications for both educational practice and policy, particularly in resource-constrained settings where student engagement and perseverance can be critical determinants of academic success.

Practice-Related Recommendations

To enhance the effectiveness of motivational techniques in mathematics instruction, the following recommendations are proposed for classroom practice:

Effective Classroom Environment: Teachers should maintain a well-managed and stimulating classroom environment that supports learning. Creating a structured yet flexible atmosphere where students feel comfortable expressing themselves and taking academic risks is essential for fostering motivation. Clear expectations, consistent routines, and respectful interactions contribute to a positive classroom climate that encourages engagement and reduces anxiety.Visible Learning, the most effective classrooms are not those that are either "strict" or "permissive," but those that exhibit high control *and* high warmth, a model known as the authoritative classroom (Hattie, 2009). A well-managed, disciplined environment is not the opposite of a student-centered one, it is its prerequisite. The evidence from Birendra Secondary School shows that structure enables, rather than inhibits, democratic and motivating classroom practices.

Use of Modern Teaching Methods: Incorporating technology and interactive tools can make complex mathematical concepts more accessible and engaging. Teachers should explore digital /online resources, simulations, and multimedia presentations to enhance visualization and conceptual understanding. Interactive whiteboards, educational apps, and online platforms can provide students with dynamic learning experiences that cater to different learning styles.

Regular Feedback: Providing timely and constructive feedback is crucial for reinforcing learning and building student confidence. Formative assessments, such as weekly quizzes, unit tests at the end of month, and term-based projects, allow teachers to gauge student understanding and adjust instruction accordingly. Encouraging regular communication between parents and teachers strengthens the home-school connection, benefiting student learning (Sapkota, 2008).

Parental Engagement: To establish the Parent Teacher Association (PTA) and PTA aims to improve the parental engagement strategy, which includes quarterly progress reports and face-to-face consultations during parent-teacher meetings. School should provide progress reports, and offer guidance on how parents can support mathematics learning at home. Engaging parents through workshops or informational sessions on effective learning strategies can further reinforce student motivation and academic success.

Policy-Related Recommendations

In addition to classroom-level strategies, broader policy interventions are necessary to support sustainable improvements in mathematics education. The following recommendations are proposed for policymakers and educational administrators:

Infrastructure Development: Investing in dedicated mathematics laboratories and providing essential teaching materials will create a more conducive learning environment for

students. Equipped with manipulatives, interactive software, and real-world applications, mathematics labs can facilitate hands-on exploration and deeper conceptual understanding. Policymakers should prioritize infrastructure upgrades to ensure that community-based schools have access to the resources necessary for effective mathematics instruction.

Professional Development: Implementing continuous teacher training programs focused on innovative teaching strategies and motivational techniques is essential for empowering educators. Workshops, mentorship programs, and collaborative teaching forums can provide teachers with opportunities to refine their instructional practices, share best practices, and stay updated on emerging trends in mathematics education. Professional development initiatives should emphasize student-centered approaches, differentiation strategies, and the integration of technology to enhance motivation and engagement.

Curriculum Reform: Updating the mathematics curriculum to reflect contemporary pedagogical approaches and integrate digital resources can better align instruction with students' needs and interests. Curriculum designers should consider incorporating real-world applications, interdisciplinary connections, and problem-solving tasks that encourage critical thinking and creativity. Emphasizing conceptual understanding over rote memorization will help students develop a deeper appreciation for mathematics and its relevance in everyday life.

Monitoring and Evaluation: Establishing mechanisms for monitoring the implementation of motivational strategies and assessing their impact on student achievement is crucial for ensuring accountability and continuous improvement. Educational authorities should develop standardized evaluation frameworks that measure student engagement, academic performance, and teacher effectiveness in promoting motivation. Data-driven decision-making can inform policy adjustments and resource allocation to optimize educational outcomes.

By adopting these recommendations, community-based schools like Birendra Secondary School can continue to enhance student achievement in mathematics and foster a culture of motivation and success among learners. Strengthening classroom practices, investing in infrastructure, supporting teacher development, and implementing evidence-based policies will contribute to a more equitable and effective mathematics education system, ultimately empowering students to reach their full potential in mathematics and beyond.

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Analyzing Students' Achievement for Informing Educational Policy Development in Nepal

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Abstract

Using a quantitative research design, this study examines the level of students' accomplishment in Nepalese schools and compares school-level achievement to the national average. The study studies students' diversity factors such as gender, province, ecological zone, and the effect of bullying on academic achievement. To guarantee national representative, schools were chosen from every province in the Federal Nepal using a multi-stage sampling technique. The results show that the average achievement score is 43, which is lower than the 45-point national average. The study finds that a number of variables, including consistent homework completion, parental academic support, economic status, and assertiveness in the classroom, are associated with students' academic achievement. These findings have implications for policy and action as well as a more comprehensive view of the opportunities and problems facing Nepal's school-level educational system. The study recommends that embarking upon a systemic, holistic approach devoted to identifying life skills, experiential learning, and inclusive practices. It also recommends to draw the expertise of school head teachers and parents to improve student outcomes.

***Keywords*:** *Students' achievement, diversity, quality crisis, topography*

Introduction

The Himalayan country Nepal is the resident of about 29 million people with a variety in terms of land topography, cultural, and language diversity. Nepal is divided into seventy-seven districts with seven provinces. The education system of Nepal is structured into basic and high school levels. According to the data available, a total of 34,743 institutes has 4,401,780 pupils studying from 1-5 grades. Also, a total of 6,230,131 pupils from 1-8 grades. Further, a total of 896,919 graders from 9-10 and 3,596 institutions with 415,343 pupils in grades 11-12 (Ministry of Education Science and Technology [MOEST], 2018). In school education, one-fifth of institutions are run by persons usually called private or institutional institutions, and the rest are community institutions i.e., are funded by the government (Education Review Office [ERO], 2015). Literacy rates and school enrolment in Nepal have improved noticeably as per the censure report 2021 (Central Bureau of Statistics [CBS], 2021), reflecting the country's ongoing efforts to expand access to education and enhance educational outcomes across various socio-economic and geographic groups. To improve general school education, the Nepal government has launched numerous intercessions like a broader extension of schools, providing enticements for female and

Dalit students as well as for needy students (MOEST, 2018). Also, the Nepal government made provisions for alternative educational programs; waiving tuition emolument and distributing schoolbooks and workbooks for the pupils reading at community institutions.

Likewise, professional development training, support systems, school supervision, feedback, and other related packages are ingrained within the system to improve the school system throughout Nepal (Acharya, 2020; Thapa, 2015). Attempts made like improving the child-friendly school environment, knowledge of good touch and bad touch, and abandonment of corporal punishment programs are also activities done by the Government of Nepal (ERO, 2013). This situation of education in the public schools in Nepal is now rising the question. In this wretched condition, the MoEST, Nepal government must implement the mechanism of evaluating students' attainment and performance, supervise schools and provide feedback, implement the norms of reward and punishment, and provide feedback to increase overall academic excellence must (Regmi, 2019). To review the system and students' achievement in school education throughout the country, the Nepal government made a separate Education Review Office (ERO) in 2010 BS. ERO has been shepherding the National Assessment of Student Achievement (NASA) in several grades and subjects of school education since 2011 (ERO, 2013; 2015).

As recommended in the School Sector Development Plan (SSDP) prepared by the government of Nepal, ERO has conducted the National Assessment of Students Achievement (NASA) for Grade 8 in 2017 and has the plan to complete run NASA for grade 5 and grade 10 in 2018 and 2019, respectively. Since 2011, ERO has conducted NASA to study and report student achievement in various grades within a specific time interval. NASA studies are designed for students' achievement in different grades in school education in Nepal. This study aims to evaluate students' academic performance in Nepali schools. The study specifically intends to investigate two major questions: first, it investigates the differences in student accomplishment between community and institutional schools across the nation. Second, the study looks at and contrasts students' academic performance in Nepali schools that are located in both rural and urban locations.

Methodology

To guarantee a representative selection of schools from each province in the Federal Nepal, the study used a multi-stage sampling technique. The sampling plan was carefully crafted, accounting for regions within each province that shared comparable geographical or ecological traits. In the first stage, provinces were selected as primary strata. In the second stage, districts within each province were randomly chosen. In the third stage, schools were selected from the sampled districts using stratified or random sampling, ensuring representation based on type (public/private), location (urban/rural), and level (basic/secondary). This approach allowed for diverse and balanced data collection across the country. Districts were randomly selected within each category that was created by classifying them according to similar geographical criteria in order to increase the sample's variety and inclusive. The total population was split into seven strata, which stood in for provinces with comparable topographies, such as Tarai, Mountain, Hill, and Kathmandu Valley.

The total number of pupils enrolled in schools throughout Nepal makes up the research population for this study. Schools were chosen as the main sampling units in order to choose participants due to the study's broad scope. The pupils who are expressly enrolled in Nepalese schools for the 2016–17 academic year grades eight through twelve is the population of the study. Public and private educational institutions are included in the target population for this study. Schools from the Mountain, Hill and Terai regions are included in the scope of this research, which provides the background for an extensive analysis of student accomplishment. A key component

of the research methodology is the use of multi-stage sampling, which involves choosing seven provinces from each of the three main ecological regions Mountain, Hill, and Tarai. This tactical approach makes it possible to conduct a representative and methodological sampling procedure that captures the diversity found in Nepal's educational environment.

The rigorous screening procedure guarantees that the results of the study can be applied to the larger student body in Nepal. Schools cover grade eight to twelve, the study aims to provide light on students' academic achievement in a variety of public and private educational environments. The use of multi-stage sampling, in particular ecological region-based stratification, improves the study's capacity to take geographic variability into account and permits a more in-depth examination of trends in student accomplishment. This methodological rigor guarantees that the research findings make a significant contribution to the comprehension of Nepali educational dynamics and may help guide focused measures aimed at improving the nation's overall educational standard.

Results and Discussion

From the study it was found that the students' achievement in the school is different in different grades. The highest score is for grade nine and grade twelve, with an achievement score of forty-eight each (Fig. 1). The overall average achievement score of boys is 43 whereas it is less i.e., 35 for girls. The grade-wise score shows that the maximum achievement score was obtained by the students of grade nine i.e., 49 among boys and least score is 28 for the girls in grade eight. The overall result shows that the boys performed better in comparison with the girls from grades eight to twelve grades in the schools in Nepal.

The student's achievement of the mountain is 21 percent, hill 29 percent, terai 27 percent

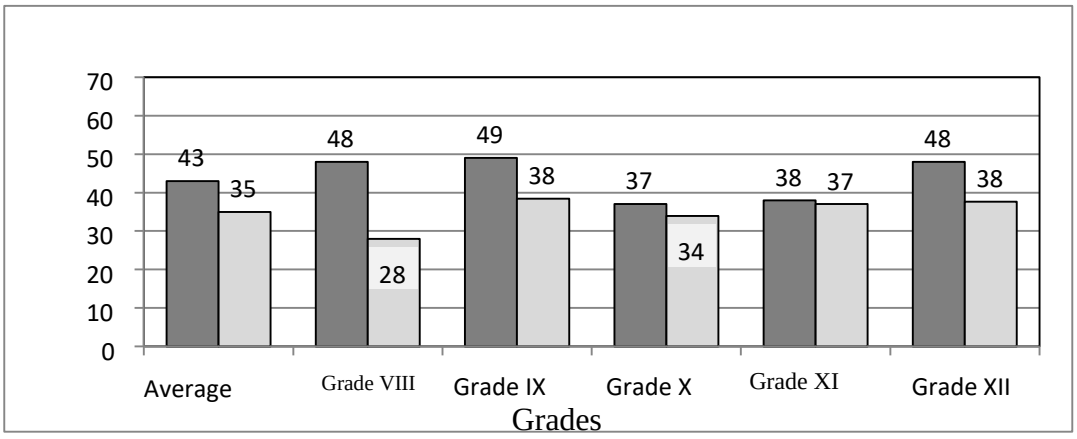

Figure 1. *Achievement Scores of Students*

and the Kathmandu valley is 53 percent. It shows that the students of Kathmandu valley have highest achievement scores i.e. 53% mean score and that of the terai have the lowest i.e., 21% mean score (Fig. 2). The result shows that the students of Kathmandu valley have done a better performance than that of three ecological regions in Nepal.

Students' Achievement by School Types

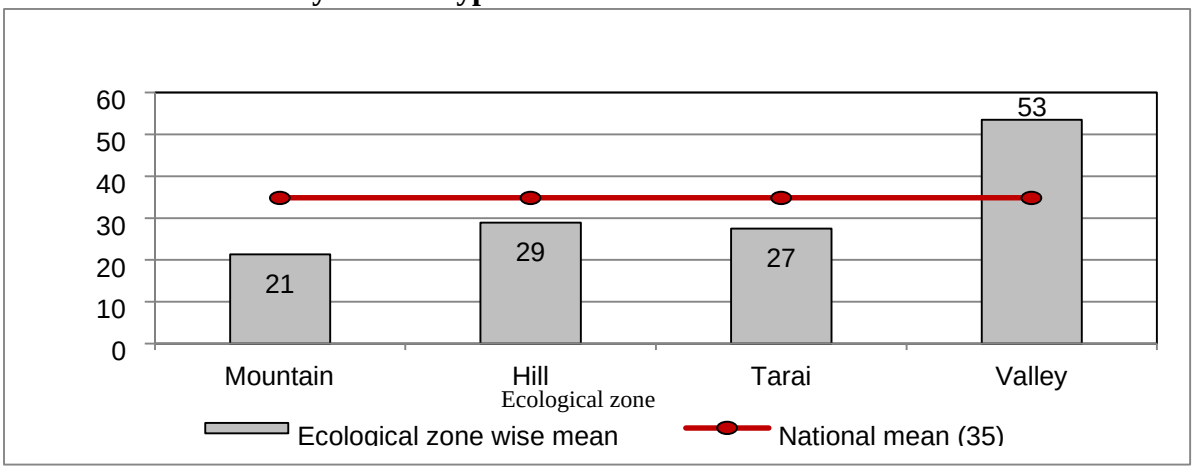

Figure 2. *Students Achievement on Ecological Belt and Kathmandu Valley*

Student achievement in public schools in Nepal achieves below 30 percent whereas it is higher in institutional schools. It shows that the student's attainment in institutional schools is comparatively more than that of the public schools in Nepal (Fig. 3).

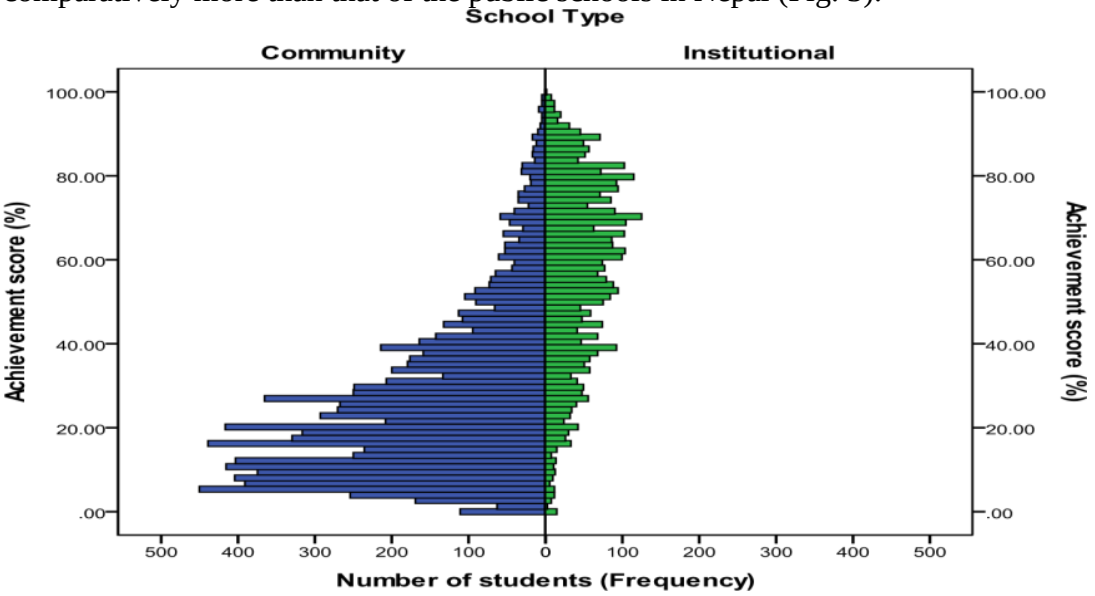

Figure 3. *Student Achievement by School Types*

Schools of Nepal are divided into public (government funded) and private (private funded). The mean achievement scores of the students studying in community schools is 26 whereas it is 57 in the institutional schools. It shows that the achievement scores of students in private is more than double in comparison of the students studying in public schools in Nepal (Table 2).

Table 1. Students Achievement in Private and Public Schools

School Types	N	Mean
Community	10,332	26
Institutional	3,934	57
Total	14,266	35

The information in Table shows on how well pupils in public and private schools perform academically when they are divided into community and institutional. Community schools have mean accomplishment ratings of 26, which suggests that they perform academically less than institutional schools, which have a substantially higher mean score of 57. The educational differences between the two school types in the context are highlighted by this significant discrepancy. The combined mean achievement score for public and private schools is 35, which indicates a reasonable performance level. The large difference in mean scores between community and institutional schools begs more research into the causes of this discrepancy and calls into question the effectiveness of the current educational frameworks.

Upon deeper inspection, the data shows that there are significantly more kids attending community schools (10,332) than institutional schools (3,934). In community schools, there are more students enrolled, but the average achievement level is still much lower. This draws attention to possible resource inequities or structural issues that could be lowering the standard of instruction in community schools. Conversely, institutional schools have a substantially higher mean accomplishment score, suggesting a potential advantage in terms of educational quality, despite having a smaller student body. In order to create a more equitable and inclusive education system and guarantee that all children, regardless of the type of institution they attend, have access to high-quality education, it becomes important to address the educational gap between community and institutional schools.

Student Attainment in Schools by Location

Schools in Nepal located in village areas have very lower achievement scores (mean value 28). It is almost double in the schools of city areas (mean value 52).

Table 2. Student Achievement in Rural and Urban Schools

Type of school	N	Mean
Rural	10,308	28
Urban	3,958	52
Total	14,266	35

Student Achievement in Various Language Groups

From this study, it is found that the students who speak the Nepali language, and those non-Nepali speakers have different achievement scores. The mean achievement score of the students who speak the Nepali language is 37 percent whereas it is only 28 for those who are Non-Nepali speakers.

Table 3. Student Achievement in Various Linguistic Clusters

Linguistic Clusters	N	Mean	SD	SE
Language Nepali	12009	37	24.9	0.2
Language non-Nepali	2557	28	20.9	0.3

The achievement score of students who speak the Nepali language seems better than those who speak the non-Nepali language. The difference between them is seen by 9 percent (Table 4). There are notable discrepancies in the data on student accomplishment across different language groupings. With 10,453 pupils, the Nepali language cluster has a mean achievement score of 37, a standard deviation of 24.9. By comparison, the language cluster that does not include Nepal, which has 4,047 pupils, has a mean accomplishment score that is lower at 28, along with a standard deviation of 20.9 and a somewhat larger standard error of 0.3.

Table 4. Students Achievement among Language/ Ethnicity Diversity

Language/Ethnicity	N	Mean	SD
Newari	282	47	23.9
Gurung	78	32	13.8
Tamang	587	32	19.5
Magar	260	27	18.3
Limbu	133	23	16.0
Tharu	328	22	17.1
Sherpa	53	22	21.5
Rai	47	20	14.1
Others	2268	27	20.9
Nepali	10453	37	24.9

Table 5 shows that about fifty percent achievement level is shown by the students of the Newari-speaking category in comparison with other linguistic groups. Students belonging to the Rai ethnicity group secured twenty percent in school achievement. In the same way, students from Sherpa language groups secured more than one-fifth percentage i.e., 22%, and Limbu got one percent more in comparison with the Newari students. Further, Gurung and Tamang students secured the same achievement score i.e., thirty-two percent (Fig. 4). Significant differences can be seen in the data on student accomplishment across various linguistic and ethnic groupings. With a mean achievement score of 47, Newari students top the list, followed by Nepali pupils, who had a mean score of 37. Students from the Tharu and Rai ethnic groups, on the other hand, have mean scores that are lower, at 22 and 20, respectively. The standard deviations show variations in the distribution of accomplishment scores within each ethnicity, as do the other group variances. This information highlights the need of taking linguistic and ethnic diversity into account when developing educational initiatives. It also highlights the necessity for focused interventions to reduce inequalities and guarantee a more welcoming learning environment for students from different backgrounds.

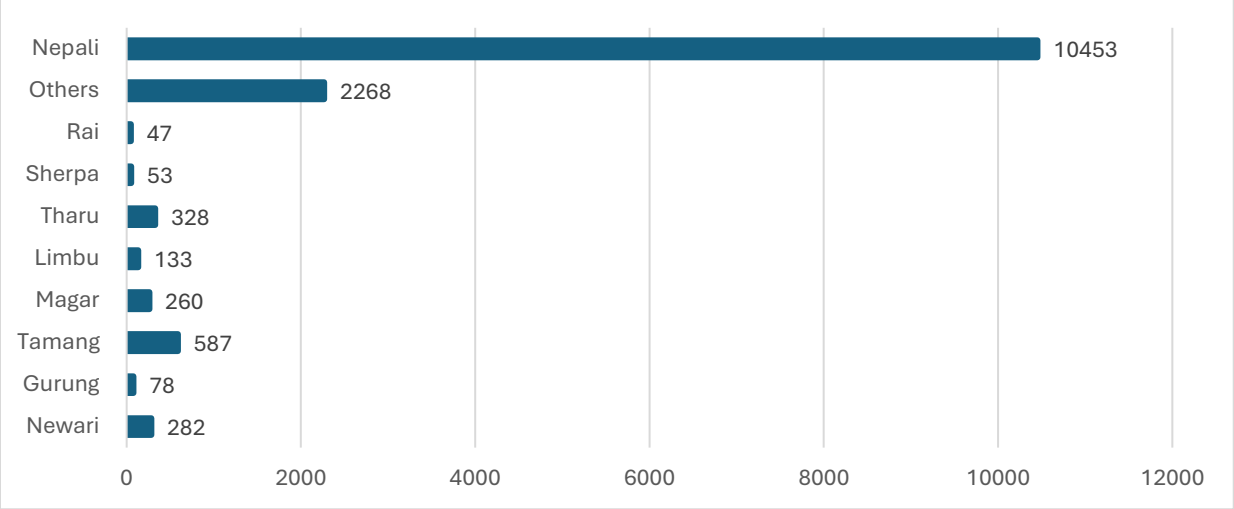

Figure 4. *Castes of Students and Achievement*

Students Achievement of Ethnicity

It is found that the achievement of Dalit students is very low i.e., 24 mean value. The highest score was obtained by the students of Brahmin/Chhetri ethnicity (mean score of 40).

Table 5. Ethnicity and Students Achievement

Ethnicity/caste	N	Mean
Brahman/Chhetri	5330	40
Janajati	5051	36
Dalit	1428	24
Madhesi	1302	29
Minorities	38	28
Others	698	37
Total	13847	35

Other ethnic groups like Janajati, Madhesi, minorities, and others have the mean value of 36, 29, 28, and 37 respectively (Table 6).

Analysis of the student's achievement scores as per the ecological regions, students of the Terai region of Nepal did better than that of the hill and mountain regions in all the ecological regions. The lowest achievement was secured by the students of the mountain region of the mid-western development region (mean value of 10).

Table 6. Ecological Regions and Student Achievement

Ecological Zones	Eastern	Central	Western	Mid-western	Far-western	Valley	Total
Mountain	14			10	24		20
Hill	20	28	26	20	21		23
Tarai	23	27	23	14			22
Valley						41	41
Total	22	27	25	19	23	41	24

In the similar vein, grade wise comparison of the achievement score of students studying in the schools in Nepal, the highest score was obtained by 9 graders whereas the score of the students studying in grade 12 have the lowest score (Fig. 5). The information regarding student achievement and gender paints a complex picture. Boys perform better than girls, with a little lower mean score of 33 and a similar standard deviation of 24.0. Boys have an average achievement score of 38 and a standard deviation of 24.2. On the other hand, the mean achievement score for boys and girls as a whole is 35, indicating a moderate level of academic competence. In order to guarantee equal educational opportunities and outcomes for all students, regardless of gender, a closer examination of contributing factors and the development of targeted strategies are necessary. The comparatively higher mean score for boys raises questions about potential gender-based differences in educational outcomes.

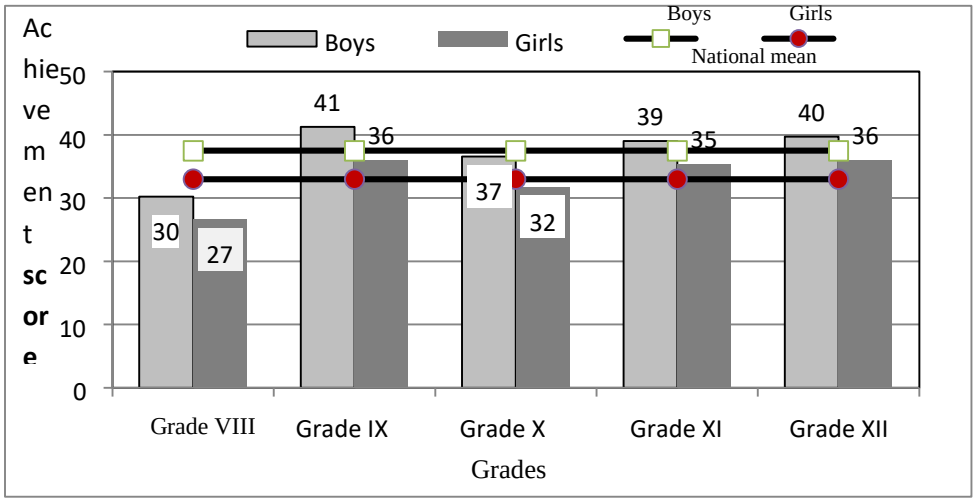

Figure 5. *Grades and Achievement Score*

From this study, it was found that Brahmin boy students scored the highest (42%) whereas Dalit girl students scored the lowest (23%) (Fig. 6).

Gender and Ethnicity/ Caste

The result shows that Brahmin/ Chhetri students have the highest achievement score i.e., 42% for boys and 37% for girl students. The minimum score secured by the Dalit students. Dalit boys have an achievement score of 25% whereas it is only 23% for girl students. Boys from Janajati ethnicity and that of Madhesi were the same i.e., 34% of each. The overall achievement score of boys is 38% and that of girl students is 33% (Fig. 6).

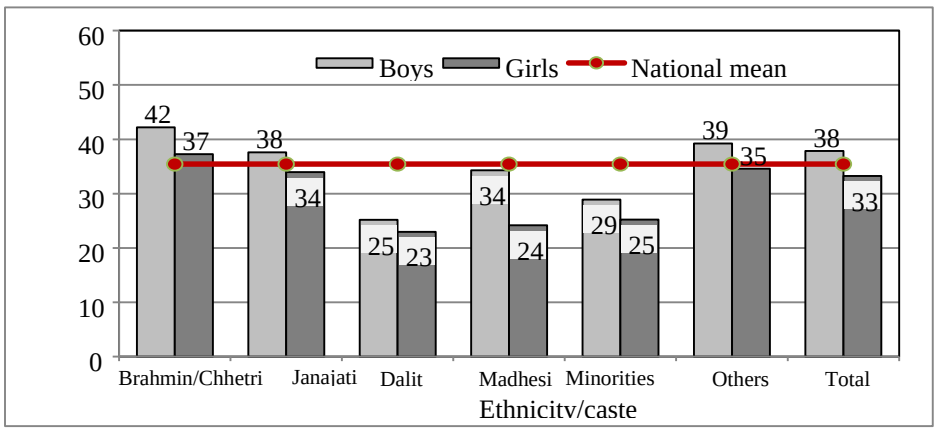

Figure 6. *Ethnicity and Achievement*

Bullying and Students' Achievement

Following questions are asked to know the condition of bullying of students and their achievement scores in schools throughout Nepal. The most common type of bullying is stealing goods like pencils, pens, tiffin, books, and copies in the class. 24.7% of students said that one of these items are stolen from the class. Moreover, 15.7% of students said that friends call them bad

names i.e., nicknames during school hours. Physical and mental hurt type of bullying was experienced by 14.3% of students in schools in Nepal.

Table 8. Types of Bullying in the School

Type of Bullying	No (%)	Yes (%)
Something was stolen like a pencil, pen, meal, copy, and books.	75.3	24.7
Calling me with nicknames and friends laugh.	84.3	15.7
Hurt by other students.	85.7	14.3
Friends do not provide me with an opportunity to do work.	88.9	11.1
Friends did not provide me to share my opinion in group activities.	90.6	9.4

The information on the different kinds of bullying that occur in schools' sheds light on the

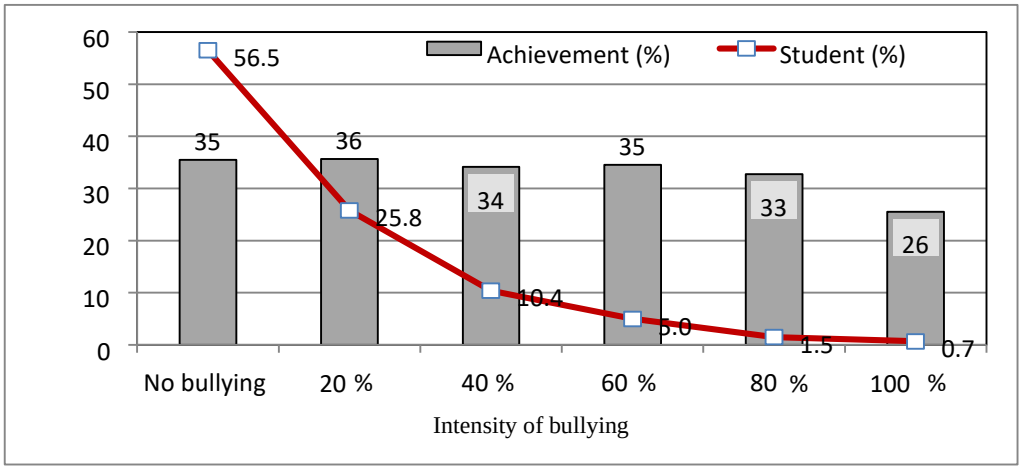

Figure7. *Diversity of Bullying*

range of abuse that students endure. The numbers show that some forms of bullying practices are worryingly common. Theft of personal property is the most often reported type, with 24.7% of students saying they have been involved in such cases. Mocking and name-calling come next, impacting 15.7% of pupils. Additionally, the research shows that a sizeable percentage of students (14.1%) report having been harmed by peers, and a sizeable percentage (11.1%) feel that their friends have excluded them from group activities. The high frequency of these actions highlights the necessity of an all-encompassing anti-bullying plan in educational settings. It is imperative to do a thorough analysis of the fundamental factors and patterns that give rise to these cases of abuse, put preventative measures in place, and cultivate an environment at school where pupils are treated with respect and tolerance. Furthermore, specialized interventions that target the types of bullying indicated by the data should be created in order to guarantee a secure and encouraging learning environment. In the case of bullying of students in the class and in the school hours, harassment is erratic in the schools. The relationship between bullying and students' achievement shows that bullying decreases students' achievement scores in schools in Nepal. The result shows that by increasing the intensity of bullying, students' achievement decreases (Fig. 7).

Discussion

This study indicates the veracity of the student's achievement in the schools in Nepal. The result of the extant study is in contour with Khanal et al., (2020) arguing that the achievement scores of students vary with gender as the girls are more sincere in study. In the same way, a study was done by Khanal and Ghimire, (2022) found challenges to increase students' performance as it is influenced by many factors such as geography, parents' occupation, bullying of children, medium of instruction, and the type of schools. Similarly, Hamlet et al., (2015), assertions that sanctioning pupils to performance, exertion and study definitely increase their achievement scores.

Also, Subedi (2003) further argues that engaging students in activities based on the curriculum assures higher scores. Skills improvement proved a significant role in increasing students' performance. Moreover, Joshi et al., (2022) found that students taught by female teachers attained ominously greater marks than those imparted by male instructors. Along the same line, Khanal et al., (2022) researched that accepting the background situation of principals at the institutions of Nepal can increase the excellence of learning. Likewise, creating a student-friendly classroom setting helps to increase pupils' achievement scores (Acharya, 2016; Subedi & Shrestha, 2020).

Furthermore, it is found that there are many challenges to promoting students' academic achievement in the schools in Nepal. This finding is in line with Joshi et al., (2022) argued that learners' sensation of proprietorship through hands-on actions is essential to foresee an effective increase in scores in different subjects. However, learning from the activities have an important role in obtaining better result (Acharya et al., 2020; Acharya, 2019; Thapa, 2015). Connecting the challenges and problems of the schools and the students, Bhattarai et al., (2009) said educational philosophies need to link up teaching and learning that help to connect schools to increase students' achievement scores. Similarly, Carney et al., (2017) suggest incorporating parents' experiences blended with the curriculum of various subjects in the school curricula in an integrated way to ensure better achievement. This paper is prepared by using the secondary data obtained from the reports published by the Education Review Office, Nepal. Further study is necessary to explore the causes of low and high achievement scores subject-wise through in-depth interviews and focus group discussions.

Conclusion

This study offers insightful information about the complexities of student accomplishment in Nepalese schools. Notably, the study is consistent with other research emphasizing the role that curriculum design, teacher qualities, and parental participation have in supporting academic performance. The study's challenges highlight the necessity of focused actions aimed at resolving inequities and improving overall educational attainment. Future studies should use qualitative techniques like focus groups and interviews to get deeper into the factors that determine achievement in a given subject. This study establishes the foundation for additional research and intervention techniques targeted at improving student achievement in Nepalese schools. It is based on secondary data from the Education Review Office (ERO) reports.

The study's findings highlight how diverse student accomplishment is in Nepalese classrooms. The results are consistent with earlier studies, showing that a number of environmental factors, parental education, and gender have a major impact on academic success. The study highlights the value of creating a supportive learning environment in the classroom and recognizes the influence of various factors on students' academic performance, including parental occupation, geography, bullying, and the medium of instruction. It supports the idea that implementing curriculum-based activities, helping kids acquire life skills, and designing classroom environments

that are welcoming to all students can have a good effect on academic results. The study does, however, also draw attention to the difficulties in encouraging academic success in Nepalese schools, pointing to the necessity of educational philosophies that close the gap between instruction and learning. Subsequent investigations including comprehensive interviews and focus group discussions are suggested to explore topic-specific elements impacting both high and low accomplishment scores.

Because of the study's dependence on quantitative approaches, it's possible that subtle qualitative elements that support student achievement is missed. Additionally, even though the study looks at a number of variables, there may be more elements that aren't fully understood because of how complex student accomplishment.

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Reimagining Higher Education in Nepal: Challenges and Opportunities

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Abstract

Nepal's higher education system faces persistent structural and systemic barriers such as inadequate governance, limited research capacity, inequities in access, and misalignment with labour market demands-despite recent reform efforts and growing enrolment. This study aims to evaluate current reforms and identify strategic interventions that can enhance quality, equity, and relevance in Nepal's higher education sector. Employing qualitative policy analysis, the research integrates a critical review of national educational policy documents, scholarly literature, and comparative global trends. The findings indicate that initiatives including digitalisation, decentralisation, and expansion of technical and vocational education have been initiated but remain disjointed and inconsistently implemented. Key reform needs identified are strengthening institutional autonomy and quality assurance systems, aligning academic curricula with market needs, fostering research and innovation culture, and leveraging digital technologies to modernise teaching and governance. The study concludes with evidence-based policy recommendations designed to guide Nepal's transition to an inclusive, competency-based, future-ready higher education model.

***Keywords*:** *higher education reform; education policy; quality assurance; digital transformation*

Introduction

Higher education serves as a cornerstone for national development by fostering human capital, driving innovation, and enhancing global competitiveness. It is not only instrumental in equipping individuals with advanced knowledge and skills but also in shaping democratic values, fostering civic responsibility, and supporting socio-economic transformation. For a developing country like Nepal, higher education is particularly significant as it holds the potential to catalyze inclusive growth, reduce poverty, and empower marginalized communities.

Nepal stands at a unique demographic advantage, with over 60% of its population under the age of 30 (National Planning Commission [NPC], 2020). This youthful demographic presents both an opportunity and a challenge. On one hand, it offers a window of opportunity for economic transformation through an educated and skilled workforce. On the other hand, the

pressure to provide accessible, high-quality, and relevant higher education to a rapidly growing student population is intensifying.

Despite considerable expansion in the number of higher education institutions over the past two decades, Nepal's higher education system continues to face several structural and operational challenges. These include outdated curricula, insufficient funding, inadequate infrastructure, limited research capacity, low employability of graduates, and persistent brain drain. The Ministry of Education, Science and Technology (MoEST, 2019) acknowledges that "the relevance and quality of higher education have remained questionable due to the lack of clear linkages between academia and the labor market." Additionally, the politicization of university governance and disruptions caused by student unions have undermined academic freedom and institutional autonomy (World Bank, 2022).

In response to these issues, national education policies and reforms have been initiated, such as the National Education Policy 2019, which emphasizes curriculum modernization, ICT integration, quality assurance mechanisms, and autonomy in university governance MoEST (2019). Furthermore, the Higher Education Reforms Project (HERP)**,** supported by the World Bank, has aimed to improve equity, access, and efficiency within the system. However, as noted in a policy review by the University Grants Commission UGC (2023), "systemic inertia, inconsistent implementation, and inadequate funding continue to slow the pace of meaningful reform."

Despite growth in the number of universities and student enrollments, Nepal's higher education system is still plagued by structural deficiencies. These include outdated curricula, inadequate research culture, weak governance, underfunded institutions, and misalignment with labor market demands. According to Former Minister of Education, Giriraj Mani Pokharel (2020):

"We cannot afford to expand higher education at the cost of quality. The transformation of higher education must go hand-in-hand with a solid framework for relevance, research, and responsiveness to national needs." The Kathmandu Post (2020)

Similarly, current educational leadership has expressed concern about the disconnect between university education and employment outcomes. Speaking at the launch of the National Education Policy 2019, then-Minister of Education, Science and Technology, Krishna Gopal Shrestha, emphasized:

"Higher education should produce graduates who can innovate, solve problems, and contribute to national development, not merely chase degrees." MoEST,(2019). In 2022, during a policy consultation session, the Ministry's Secretary Ram Prasad Thapaliya noted: "Our universities must develop institutional autonomy and accountability. Excessive political interference has compromised academic standards, and we need strong leadership to restore credibility in the sector." UGC Consultation Proceedings (2022)

At the same time, the global higher education landscape is being reshaped by emerging trends such as digital learning, international collaboration, and a shift toward competency-based education, which Nepal must strategically adapt to. According to educational expert Dr. Lekh Nath Poudel, "Nepal cannot afford to lag behind in the global knowledge economy; we must reimagine higher education as a flexible, inclusive, and innovation-driven system" Poudel (2022).

This article seeks to analyze the current state of higher education in Nepal through a comprehensive review of its challenges, emerging opportunities, and policy initiatives. By

integrating insights from academic literature, policy documents, and global trends, the paper proposes a forward-looking vision for reforming the sector. It emphasizes the need for innovation, equity, and quality assurance to ensure that higher education in Nepal can fulfill its transformative potential in the decades to come.

Research Objectives

1. To identify key structural and systemic challenges in Nepal's higher education system.
2. To assess the effectiveness of recent higher education reform initiatives.
3. To propose strategic policy recommendations for building an inclusive, competency-based, and future-oriented higher education model.

Literature Review

The higher education sector in Nepal has attracted significant scholarly and policy attention, with numerous studies highlighting persistent systemic challenges that impede its growth, quality, and relevance. While Nepal's higher education system has made strides in expanding access over recent decades, there is widespread consensus that comprehensive reforms are urgently needed to align institutional goals with national development priorities and evolving global standards of quality and innovation.

Curriculum Relevance and Skills Mismatch

A prominent concern across recent literature is the outdated and rigid nature of curricula in Nepalese universities. Khanal and Ghimire (2021) and the World Bank (2021) emphasize that many academic programs remain predominantly theoretical, lacking sufficient integration of practical skills and experiential learning. This curricular misalignment results in a significant skills gap between graduates and labor market demands. Employers report that graduates often lack critical competencies such as problem-solving, communication, and technical skills essential for participation in knowledge-driven economies (World Bank, 2021).

This mismatch has tangible socio-economic consequences. The Nepal National Employment Report (2020) indicated that approximately 30% of university graduates were either unemployed or engaged in jobs unrelated to their field of study, reflecting the systemic failure to produce work-ready graduates. This issue not only limits youth employment prospects but also undermines broader national development objectives.

To address this challenge, the literature widely advocates for curriculum reforms emphasizing competency-based education, stronger industry linkages, entrepreneurship education, and flexible, interdisciplinary program designs that can rapidly respond to global trends (Khanal & Ghimire, 2021; World Bank, 2021).

Governance and Institutional Autonomy

Governance challenges constitute another critical barrier to higher education quality in Nepal. Thapa (2020) details how politicization, particularly through student unions affiliated with political parties, disrupts academic operations, causing frequent strikes and administrative paralysis. Such disruptions delay academic calendars, erode institutional autonomy, and weaken meritocratic principles crucial for academic excellence. Political interference also diminishes faculty motivation and professionalism by undermining merit-based recruitment and promotion systems, thus stalling the development of a robust academic culture that fosters research, innovation, and student engagement (Thapa, 2020).

In response, the government and international partners have initiated reforms under the Higher Education Reform Project (HERP), which aims to decentralize governance, empower institutional leaders, and strengthen accountability and quality assurance mechanisms (HERP

Progress Report, 2023). Early reports indicate gradual improvements, though political resistance and institutional inertia remain significant challenges.

Research and Innovation Capacity

Nepal's higher education sector faces chronic underinvestment in research infrastructure and weak incentives for faculty research, limiting its capacity to contribute to knowledge creation and innovation (Paudel, 2019). Compared to regional peers, Nepalese universities have lower research output and fewer collaborative projects, which constrains their competitiveness. Strengthening research capacity requires increased government and donor funding, establishment of dedicated research centers, merit-based incentives for faculty, and fostering academic-industry partnerships and international collaborations (HERP Progress Report, 2023; Paudel, 2019).

Alignment with Global Trends and Lifelong Learning

International organizations such as UNESCO (2022) highlight the misalignment between Nepal's higher education offerings and global economic shifts. Lifelong learning, equity, and digital transformation are increasingly prioritized in global education reform agendas (UNESCO, 2022).

Globally, higher education is rapidly shifting toward student-centered, competency-based education and digital learning platforms (Altbach & de Wit, 2020). The COVID-19 pandemic accelerated digital adoption in Nepalese universities but exposed significant infrastructural and capacity gaps, including limited internet access and inadequate digital literacy among faculty and students (UNESCO, 2022). Addressing these gaps is critical for equitable access and quality enhancement.

Emerging Opportunities and Reform Pathways

Despite ongoing challenges, positive developments provide grounds for cautious optimism. The expansion of private higher education institutions has introduced program diversification and industry linkages, while the growth of technical and vocational education and training (TVET) addresses practical skills shortages (HERP Progress Report, 2023). International collaborations have begun to foster research partnerships and academic exchanges, providing exposure to global best practices.

Together, these trends suggest Nepal's higher education system is gradually moving toward greater inclusivity, quality, and relevance, though sustained policy commitment and investment are necessary to realize this potential fully.

While the literature offers extensive insight into discrete aspects of Nepal's higher education challenges-such as curriculum misalignment, political interference, and research capacity deficits-it lacks integrative analyses that examine how these factors interrelate within a systemic framework of reform. Furthermore, empirical studies assessing the implementation and impact of recent reform initiatives like HERP at the institutional and student levels remain scarce. Additionally, there is limited research exploring the long-term effects of rapid digital transformation post-COVID-19 on educational equity, pedagogical quality, and institutional readiness in Nepal. Addressing these gaps through comprehensive, multidisciplinary research is crucial to developing evidence-based strategies for transforming Nepal's higher education into a resilient, innovative, and globally competitive system.

Theoretical Framework

This study is grounded in two interrelated theoretical perspectives: Human Capital Theory and the New Public Management (NPM) paradigm in education. Human Capital Theory, as articulated by Schultz (1961) and Becker (1993), posits that investment in education enhances the productivity and employability of individuals, thereby contributing to national economic

development. In the context of Nepal, this theory underscores the importance of aligning higher education with labor market needs to address graduate unemployment and underemployment. The misalignment between curricula and practical skills, as identified by Khanal and Ghimire (2021), illustrates a failure to optimize educational outcomes for both individuals and the economy.

The New Public Management (NPM) framework informs the governance dimension of this study. NPM advocates for greater efficiency, accountability, and autonomy within public institutions, including higher education. Applied to the Nepalese context, this perspective supports the argument for institutional reforms that reduce political interference, decentralize decision-making, and enhance performance-based management Thapa (2020). This approach is particularly relevant in assessing the governance challenges documented in the literature and in shaping recommendations for systemic reform.

Together, these theories provide a lens through which the study critically analyzes the effectiveness, relevance, and governance of Nepal's higher education sector, and frames the strategic imperatives for reform.

Methodology

This study adopted a qualitative, document-based research methodology to analyze the current challenges and emerging opportunities within Nepal's higher education sector. Given the complexity and multi-dimensional nature of the issues involved, a qualitative approach facilitated a comprehensive synthesis of diverse perspectives from policy documents, research articles, and international reports. National policy documents and reform project reports (e.g., Higher Education Reform Project reports, Ministry of Education strategic plans, etc. were considered for the prior data in the study. Moreover, peer-reviewed academic studies, reports from international organizations such as UNESCO, World Bank, Asian Development Bank, OECD, articles and official document of the government, etc. were the secondary sources to collect data on Nepalese higher education.

However, a thematic content analysis was conducted to identify and categorize key themes across the four domains of challenges—quality and curriculum relevance, governance and political interference, brain drain, and infrastructure and funding gaps as well as the emerging opportunities including digital learning, international collaboration, TVET, and private sector growth. The study particularly emphasizes recent post-pandemic changes and the effects of global trends such as digitalization and internationalization, integrating contemporary findings from 2020–2023 literature. Attention was paid to discrepancies between policy intentions and ground realities. While comprehensive, this research is limited by reliance on secondary data. Future empirical studies involving field interviews with university administrators, faculty, students, and policymakers are necessary to deepen understanding of implementation challenges and lived experiences.

Result and Discussion

Quality and Curriculum Relevance

The analysis affirms that **curriculum stagnation** remains a fundamental challenge in Nepalese higher education, despite growing recognition of its detrimental impact on graduate employability. Consistent with Khanal and Ghimire (2021) and the World Bank (2021), curricula continue to prioritize rote memorization and theoretical knowledge over practical skills, critical thinking, and digital literacy. This mismatch has become even more pronounced in light of rapid technological advancements and the digital economy.

Recent studies (e.g., Sharma & Adhikari, 2023; UNESCO, 2022) emphasize the critical need for outcome-based education (OBE) frameworks that align academic programs with real-world competencies, particularly in emerging fields like data science, AI, environmental sustainability, and entrepreneurship. The pandemic-induced acceleration of digital transformation also highlights the urgency to embed blended learning models and interactive pedagogy.

Industry reports reveal persistent gaps in industry-academia collaboration, which undermines students' exposure to internships, applied research, and innovation projects. Strategic reforms must thus foster partnerships to co-develop curricula, ensure labor market responsiveness, and enhance experiential learning opportunities.

Governance and Political Interference

The entrenched political interference identified by Thapa (2020) continues to erode academic freedom and institutional autonomy. This study's findings corroborate ongoing disruption through politically motivated strikes and governance instability, which harm academic calendars, faculty motivation, and institutional credibility. Post-2020 policy frameworks, including HERP (2023), have taken steps toward decentralizing governance and strengthening accountability. Establishing autonomous governing boards with multi-stakeholder representation—academia, industry, civil society—is widely advocated to depoliticize decision-making and enhance transparency.

Brain Drain

The brain drain phenomenon has intensified, exacerbated by domestic education system limitations and more attractive international prospects for Nepalese students (Shrestha & Bhattarai, 2022). Data indicate that significant proportions of Nepali students studying abroad do not return, citing better career opportunities, research facilities, and political stability overseas.

This outflow undermines national capacity in critical sectors such as healthcare, engineering, and education. While remittances offer short-term economic relief, the long-term loss of human capital calls for strategic interventions to improve domestic research infrastructure, career pathways, and incentives for returning graduates. Recent literature highlights the potential of diaspora engagement programs to reverse brain drain effects by fostering knowledge transfer, research collaboration, and investment from Nepali professionals abroad.

Infrastructure and Funding Gaps

Persistent underinvestment in physical and digital infrastructure constrains teaching quality and research productivity, particularly outside urban centers. The COVID-19 crisis exposed and deepened digital divides due to inadequate internet connectivity and lack of digital literacy among faculty and students (UNESCO, 2022; Adhikari, 2023).

Public universities remain financially dependent on limited government subsidies, restricting investment in laboratories, libraries, and technology upgrades. The widespread use of part-time or contract faculty, often with limited research capacity, further affects institutional stability and mentoring quality. Contemporary policy analyses stress the urgent need to diversify funding source**s**, including private sector partnerships, research grants, and international development aid, to build sustainable institutional capacity.

Emerging Opportunities and Strategic Directions

Despite these challenges, the sector exhibits encouraging signs of digital innovation**,** internationalization**,** and private sector engagement**.** The COVID-19 pandemic acted as a catalyst for adopting digital platforms such as MeroSchool and MOOCs, enabling flexible learning even in remote areas. However, success depends on bridging digital literacy gaps and infrastructure

investment to ensure equitable access. Growing international academic collaborations offer opportunities for faculty exchange, joint research, and exposure to global best practices. These partnerships can enhance curriculum relevance and institutional visibility. The rise of Technical and Vocational Education and Training (TVET) addresses skills mismatches and youth unemployment by focusing on demand-driven practical skills aligned with Nepal's economic needs. Expansion of the private higher education sector, while raising concerns about quality control, injects diversity, innovation, and additional capacity into the system.

Integrated Reform Agenda

The synthesis underscores that fragmented or isolated reforms will be insufficient. A holistic, coordinated strategy is critical, incorporating curriculum modernization, faculty development, governance depoliticization, research investment, digital infrastructure, and equitable access. Multi-stakeholder collaboration involving government bodies, universities, private sector, civil society, and international donors is essential to create a resilient, inclusive, and globally competitive higher education ecosystem in Nepal.

Current Challenges in Higher Education

Despite notable expansion in the number of higher education institutions and increased enrollment over the past two decades, Nepal's higher education system continues to grapple with multiple deep-rooted and interrelated challenges. These issues affect the quality, equity, and effectiveness of higher education, limiting its ability to contribute meaningfully to national development. This section outlines four major areas of concern:

Quality and Curriculum Relevance

One of the most persistent challenges facing higher education in Nepal is the lack of curriculum modernization. Many academic programs across public universities are based on syllabi that have not been significantly revised for years. These curricula often place a heavy emphasis on theoretical knowledge and rote learning, while giving minimal attention to practical, hands-on experience, critical thinking, interdisciplinary learning, or emerging global skills such as digital literacy, problem-solving, and communication.

As a result, graduates frequently find themselves ill-prepared for the evolving demands of the domestic and international labor markets. Employers often report that university graduates lack basic job-readiness skills, a gap that reflects weak industry-academia linkages and limited emphasis on experiential learning such as internships, case studies, or capstone projects. Furthermore, the pace at which technological and societal changes are occurring—especially in areas like information technology, health sciences, and environmental studies—demands more agile and responsive academic programming, which remains largely absent.

Political Interference

Nepal's university system has long been subject to political influence, which undermines academic integrity, decision-making autonomy, and institutional stability. Political parties maintain active involvement in student unions, faculty associations, and even university appointments. As a result, university campuses often become battlegrounds for political agendas rather than spaces for scholarly inquiry and educational advancement. Frequent strikes (locally termed *bandhs*), class boycotts, and politically motivated protests disrupt academic calendars and negatively impact both teaching and learning outcomes. The politicization extends into faculty hiring and promotions, which can sometimes be influenced more by party loyalty than by merit or academic credentials. This undermines morale, erodes trust in the system, and contributes to a culture of patronage and inefficiency. The broader impact of political interference is a weakened

institutional governance structure, where long-term academic planning and innovation are often sidelined in favor of short-term political considerations.

Brain Drain

Nepal faces a serious brain drain problem, with thousands of students leaving the country each year to pursue higher education abroad-primarily in countries such as Australia, the United States, India, and the United Kingdom. According to government and educational consultancy data, a substantial portion of these students choose not to return after graduation, citing better career prospects, higher wages, and more stable political environments abroad. This outflow represents a significant loss of human capital at a time when Nepal requires skilled professionals to support economic growth, technological innovation, and public sector reform. The root causes of this trend include dissatisfaction with the domestic education system, perceived lack of opportunities for career advancement, and weak research and development environments. Although remittances from the diaspora contribute significantly to Nepal's economy, the long-term implications of brain drain-particularly in sectors like healthcare, engineering, and academia-are detrimental to national development.

Infrastructure and Funding Gaps

The physical and institutional infrastructure of Nepal's higher education sector remains underdeveloped, particularly in public universities. Laboratories, libraries, and teaching facilities are often outdated or inadequately equipped, hindering the delivery of quality education. In many institutions, especially those located outside the Kathmandu Valley, students lack access to essential academic resources, reliable internet, and modern learning environments.

Furthermore, funding for higher education is both limited and unevenly distributed. Public universities rely heavily on government subsidies, which are often insufficient to cover operational costs, let alone investments in research, faculty development, or technological upgrades. Financial constraints also affect hiring practices, resulting in a shortage of qualified full-time faculty. Many universities rely on part-time or contract lecturers, which limits faculty availability for mentoring, research collaboration, and institutional development.

These infrastructure and funding gaps directly impact student learning outcomes, faculty productivity, and the overall competitiveness of Nepalese universities on a regional and global scale.

Emerging Opportunities

Despite significant challenges, Nepal's higher education sector also presents promising opportunities for transformation. These are shaped by technological advancement, shifting educational demands, global integration, and policy reforms. Leveraging these opportunities could help the country realign its higher education system with national development goals and global standards.

Digital Learning Platforms

The COVID-19 pandemic served as a powerful catalyst for the digitalization of education in Nepal. With physical classrooms closed for extended periods, educational institutions were compelled to adopt online learning solutions. Platforms such as MeroSchool**,** e-Pustakalaya, and various Massive Open Online Courses (MOOCs) became essential tools for delivering content remotely.

This shift, while initially reactive, has opened new avenues for blended and lifelong learning, especially in remote and underserved regions. Digital platforms offer flexibility, cost-effectiveness, and scalability, enabling access to a broader demographic of learners. Moreover, they can support personalized learning experiences, interactive content, and self-paced study—

elements that are often missing in traditional classroom settings. However, to fully harness this potential, issues such as internet connectivity, digital literacy, and content localization must be systematically addressed.

International Collaboration

Academic globalization presents an important opportunity for Nepalese institutions to engage in international collaborations through student exchanges, joint degree programs, faculty mobility, and collaborative research. Several Nepali universities have initiated partnerships with institutions in countries like India, China, Australia, and the United States, expanding opportunities for knowledge sharing and cultural exchange.

Such collaborations can help enhance the quality of instruction, research capacity, and institutional visibility. Exposure to global best practices and diversified pedagogies also contributes to curriculum improvement and student preparedness for international careers. Moreover, international engagement helps align Nepalese institutions with global accreditation standards and benchmarks.

Technical and Vocational Education

There is a growing recognition of the value of Technical and Vocational Education and Training (TVET) in addressing Nepal's youth unemployment and underemployment. Programs focusing on practical skills in areas such as hospitality, information technology, agriculture, and construction are gaining traction, particularly among students seeking quicker pathways to employment. Supported by both public initiatives and donor-funded projects, TVET is increasingly being integrated into mainstream education through polytechnic institutions, vocational schools, and community colleges. This shift represents a movement away from the traditional academic model toward a demand-driven, skills-oriented approach, which is vital for Nepal's economic diversification and inclusive development.

Private Sector Growth

The rapid expansion of the private education sector in Nepal has contributed to increased access, improved infrastructure, and greater program diversity. Private colleges and universities—particularly those affiliated with foreign institutions—often offer more contemporary curricula, updated teaching methods, and better student services than many public counterparts. This trend also encourages healthy competition, pushing public institutions to improve their standards. While concerns about commercialization and regulatory oversight persist, the private sector's role in filling capacity and innovation gaps cannot be overlooked. With appropriate policy frameworks, private institutions can become key stakeholders in the modernization of higher education in Nepal.

Strategic Directions for Reform

Transforming Nepal's higher education system into a more effective, inclusive, and future-ready sector requires deliberate and sustained reform efforts. The following strategic priorities are essential:

Curriculum Modernization

There is an urgent need to transition from content-heavy, examination-focused curricula to outcome-based education (OBE) models that emphasize skills, critical thinking, and real-world application. Curriculum development must involve continuous feedback from industry stakeholders, alumni, and labor market studies to ensure relevance. This also includes the integration of interdisciplinary studies, entrepreneurship, and emerging fields such as data science, environmental studies, and artificial intelligence.

Faculty Development

The quality of teaching and research is closely tied to the professional development of faculty. Institutions should implement mandatory training programs focused on pedagogy, digital tools, research methods, and ethics. Faculty exchange programs, research grants, and performance-based incentives can also help improve motivation and output. Establishing a national center for academic excellence and faculty development could systematize these efforts.

Governance and Autonomy

Depoliticizing university governance is fundamental to improving institutional performance. Establishing autonomous and accountable governing boards with representation from academia, industry, and civil society can enhance transparency, reduce political interference, and enable more strategic decision-making. Legal and policy frameworks should support institutional autonomy while ensuring public accountability and regulatory compliance.

Research and Innovation

To build a knowledge-based economy, Nepal must invest in research infrastructure and innovation ecosystems**.** This includes setting up dedicated research centers in priority sectors like agriculture, climate change, health sciences, and information technology. Encouraging public-private research partnerships, increasing research funding, and creating pathways for commercialization of university research are key elements of this strategy.

Equitable Access

Ensuring equity and inclusion in higher education remains a critical challenge. Marginalized communities, women, and students from remote regions continue to face barriers to access and success. Reforms should focus on expanding scholarships, providing remedial support, building inclusive campuses, and promoting gender-sensitive policies. The development of regional higher education hubs can also help decentralize opportunities and reduce disparities between urban and rural areas.

Conclusion

Nepal's higher education system stands at a pivotal juncture, shaped by competing forces of tradition, modernization, and globalization. The challenges are undeniable—ranging from outdated curricula and politicized governance to infrastructure deficits and talent migration. However, the sector also holds tremendous promise, driven by a youthful population, technological advancement, expanding private participation, and increasing global engagement.

To unlock this potential, a coordinated, multi-stakeholder approach is essential. Policymakers must enact and implement forward-looking reforms; institutions must strive for academic excellence and responsiveness; and the private sector, civil society, and international partners must play active roles in supporting innovation and capacity-building.

By embracing a reform agenda rooted in quality, equity, innovation, and relevance, Nepal can position its higher education system not only as a driver of national development but also as a contributor to regional and global knowledge economies.

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Experiences of women migrant workers and their reintegration status in Nepal

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Abstract

This paper explores the experiences of women migrant workers and their reintegration status in Nepal, with a specific focus on also includes the improving of new reintegration policies for returnee women. It employs a qualitative approach; information collected from two municipalities: Dakshinkali and Tarkeshwar of Kathmandu district. Through the Focus Group Discussion and In-Depth Interviews were conducted among 48 and 40 returnee women, the study captured their lived realities. A majority of participants belonged to Janajati/Indigenous nationalities (62.5% in FGDs; 70% in IDIs) and practiced Hinduism. Nearly two-fifths (35%) of FGD respondents and one-fifth (17%) of IDI respondents took the route through India to reach third countries, highlighting a high risk of trafficking. Over two-fifths of them were below 24 years of age. Documentation status revealed that 31percent of FGD respondents and 37.5 percent of IDI respondents were un-documented. While most returnees demonstrated a clear understanding of the concept's "return" and "reintegration," they reported inadequate support upon return especially during the lockdown period underscoring an urgent need for immediate reintegration planning to aid vulnerable returnees and facilitate family reunification. Participants emphasized the importance of social, economic, and psychosocial reintegration support.

Keywords: *migrant worker, reintegration, returnee, women*

Introduction

The number of international migrants, including refugees, in the world is 281 million in 2020 (UNDESA, 2021). Of them, the share of Asia is 85.6 million. Worldwide, almost half (48.1%) of them are females.[1] Migration in Nepal is characterized mainly by internal migration, long term and seasonal migration, diaspora, student migration, refugees, travel for family reunion and visits, etc. International migration for foreign employment has become a common livelihood option for millions of Nepali women and youths. The Department of Foreign Employment (DoFE) issued 4,792,209 labour permits for foreign employment that includes 2, 36,688 women and 45, 55,521 men until Fiscal Year 2019/20, where the composition of skilled labour is 1.5 per cent,

[1] Migration Data Portal. https://www.migrationdataportal.org/themes/gender-and-migration.

semi-skilled 24 per cent and unskilled 74.5 per cent (Ministry of Finance, 2020). Despite the mobility restrictions ensued by COVID-19, a total of 368,344 people took labour permits in 2019/20.2 The Government of Nepal has officially issued institutional labour permits for the foreign employment in 110 destination countries. The major countries of destination for Nepali migrant workers include Qatar (31.8%), United Arab Emirates (26.5%), Saudi Arabia (19.5%), and Kuwait (6.8%) (MoLESS, 2020).

Nepal's policy towards return migration plays a pivotal role in efficient migration management. The current pandemic is the historically consequential global health crisis and women migrants are more vulnerable and susceptible to the several risk factors. This pandemic has raised major concerns regarding the policies, plans and issues concerning labour rights and social-economic impact of migration. There is an immediate need for fostering future policies for efficient and effective repatriation and re-integration of returnee women migrants. The current situation and the findings have highlighted the need for sustainable re-integration policies and plans to help women migrant workers. The objectives of this paper are to explores the experiences of women migrant workers in out of countries and to find out the status of their reintegration after returned in Nepal.

Methodology

The paper is based on the desk review, which are substantiated by consultations with concerned stakeholders and interactions with targeted group viz. returnee migrants, aspirant migrants and internal migrants. The main data-collection tools and techniques included in-depth interviews, focus group discussions (FGDs), and key informant interviews (KIIs), conducted via phone, online, or face-to-face. In total, the study comprised 6 FGDs, 40 in-depth interviews, and 12 KIIs, drawing on both primary and secondary sources in line with the research objectives. Participants were randomly selected by the research team from the attendance sheet, minutes of meeting and referrals recorded during the project intervention conducted between 2019 and 2021. Research team invited participants to join the FGDs and IDIs through phone calls two days prior to the discussions/interviews. Participant who was unreachable, due to change in phone numbers or relocation, randomly replaced by the sampling frame of the project documents.

On the day of the focus group discussion and in-depth interviews, all participants were asked to give oral consent prior to participation; the secession proceeded only after consent was confirmed. The research team develops the bilingual consent form (Nepalese and English) to obtained permission for capturing video, voice and photographs. Participants were informed that these recordings could be used in full or in part for publications, news releases, online platforms, and other communications.

Results and Discussion

Socio-demographic Characteristics of Respondents

The total respondents of Focus Group Discussion (FGDs) and In-Depth Interviews (IDIs) were 48 and 40 respectively. A large majority of respondents were from Janajati/Indigenous nationalities in both FGDs and IDIs (62.5% and 70%), followed by Brahmin/Chhetri (35% and 30%) and very few (2%) are Dalit. The significant proportion of respondents from FGDs and IDIs were follower of Hindu religion which were 75 percent. Of the total returnee, nearly two-fifth were unemployed (i.e. 35% respondent of FGD and 40% of IDI respondents), followed by housewife from FGDs (20.83%) and services from IDIs (45%).

[2] Database of Department of Foreign Employment. Accessed 16 March, 2021. This data is the total of new and re-entry categories.

The significant proportion of FGDs and IDIs respondents were married (47.92% and 77.50% respectively) while single women comprised 27 percent of FGDs. Majority of respondents from both FGDs and IDIs have completed primary education. Kuwait was the most common destination country for FGDs participants, whereas the majority of IDI respondents had worked in the UAE (32%) (Table 1).

Table 1: Background characteristics of participant of FGD and IDI

	FGD		**IDI**	
Characteristics	**No.**	**%**	**No.**	**%**
Caste/ethnicity				
Janajati/Indigenous nationalities	30	62.50	28	70.00
Brahmin/Chhetri	17	35.42	12	30.00
Dalit	1	2.08	0	0.00
Religion				
Hindu	36	75.00	30	75.00
Buddhist	12	25.00	10	25.00
Current Occupation of respondents				
Unemployed	17	35.42	16	40.00
Housewife	10	20.83	0	0.00
Agriculture	6	12.50	6	15.00
Service	7	14.58	18	45.00
Others	8	16.67	0	0.00
Marital status				
Married	23	47.92	31	77.50
Single Woman	13	27.08	4	10.00
Unmarried	12	25.00	5	12.50
Level of education				
Illiterate	13	27.08	0	0.00
Literate	0	0.00	5	12.50
Primary	15	31.25	22	55.00
Secondary	14	29.17	13	32.50
Higher Secondary	6	12.50	0	0.00
Country of destination				
UAE	10	20.83	13	32.50
Kuwait	16	33.33	9	22.50
Lebanon	6	12.50	4	10.00
Oman	4	8.33	3	7.50
Other	12	25.00	11	27.50
Total	48	100.00	40	100.00

Legal Status of Returnee Migrants During Travel and at Destination

The formal migration process enhances safe, secure and dignified mobility which also ensures the security of income and earnings. The channels used at the time of departure and

documentation status have great attention in terms of safe and secure migration process. The Government of Nepal (GoN) has mandatory provision of using the domestic airport for the foreign employment that means completely banned to travel from India to third countries.

Figure 1*: Channels used for going foreign migration*

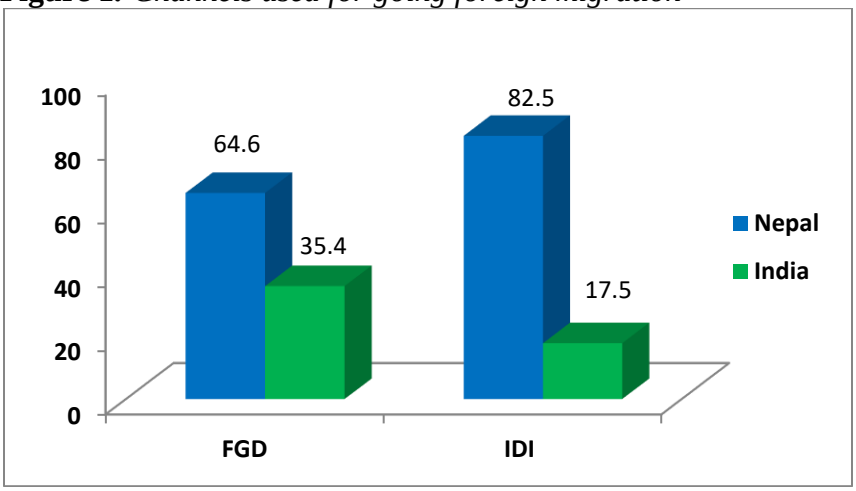
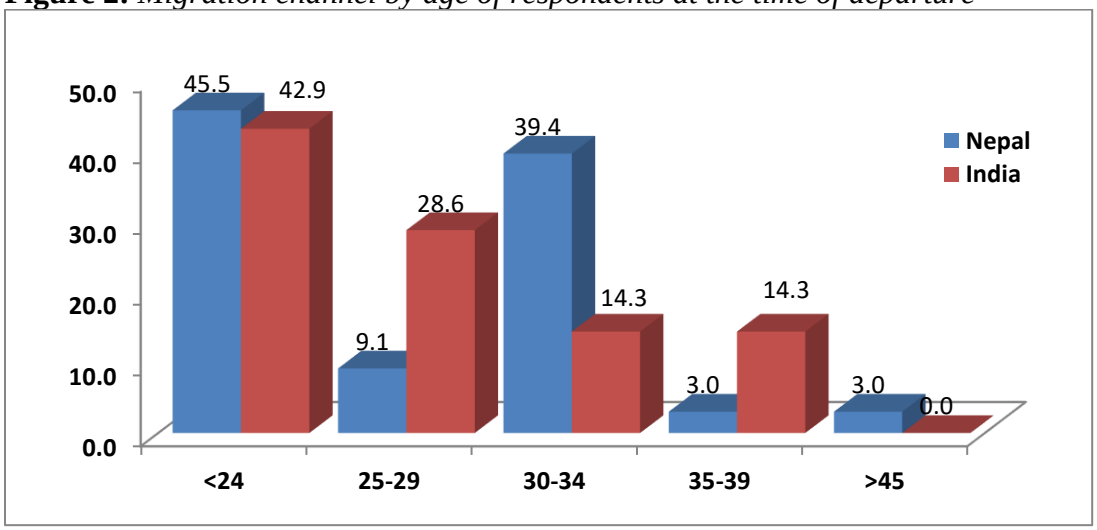


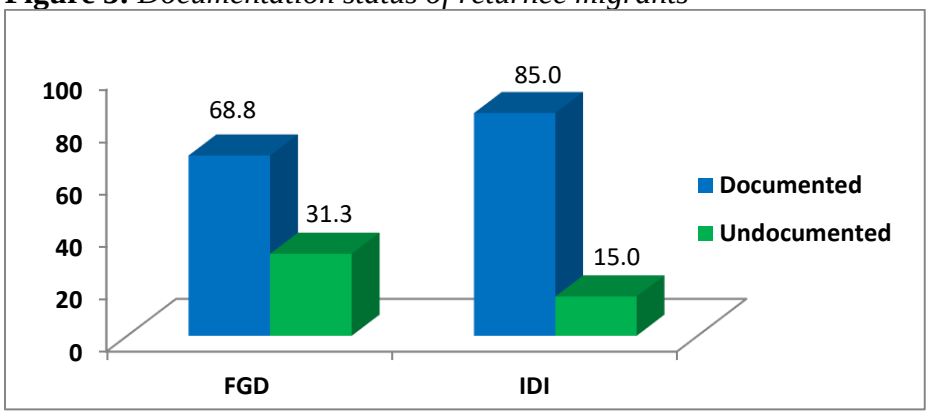
Figure 1: Illustrates that about 35 percent respondents of FGDs and 17 percent respondents of IDIs went different countries through India. It shows that there might be a high risk of becoming trafficked due to use of illegal channels. Migration channels varied by respondents' age. Among respondents under 24, about **43%** traveled abroad for employment via India; this route was also used by **28.6%** of those aged 25–29. However, **none** of the respondents aged 45 or older used the India route (Figure 2).

Figure 2: *Migration channel by age of respondents at the time of departure*



Similarly, the cases of wage theft, legal barriers and security challenges if their status is undocumented. Regarding the scenario of documentation status of respondents of both FGDs and IDIs, nearly one-third (31%) of FGDs whereas out of 40 respondents, 15 percent respondents of IDIs were undocumented (Figure 3).

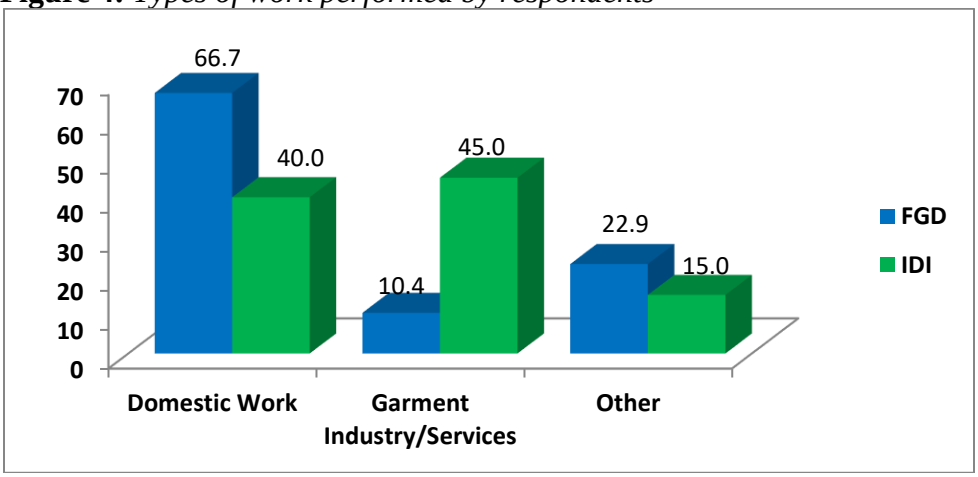
Figure 3: *Documentation status of returnee migrants*



Status of Work and Remittances

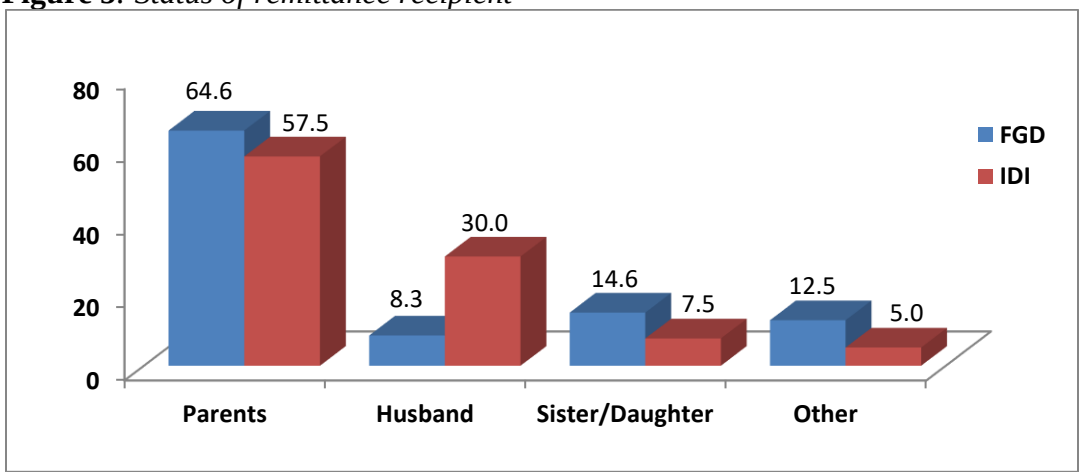
The safety, security and income of migrants are directly related to the types of work performed. In majority of cases the chances of exploitation might be higher with domestic work than that of other types of work. Majority of respondents of FGDs were engaged in domestic work (66.7%) which is contrasted with other sectors (22.9%). In the same way, two-fifths of the IDI respondents were engaged in Garment industry/service sectors (45%) which is followed by domestic work (40%) (Figure 4).

Figure 4: *Types of work performed by respondents*



Majority of respondents of both FGDs and IDIs reported that the remittances used by their parents while 65 percent respondents of FGDs and 57 percent respondents of IDIs. After parents, followed by their sister/daughter whereas respondents of IDIs used by their husband (14.6% and 30% respectively) (Figure 5).

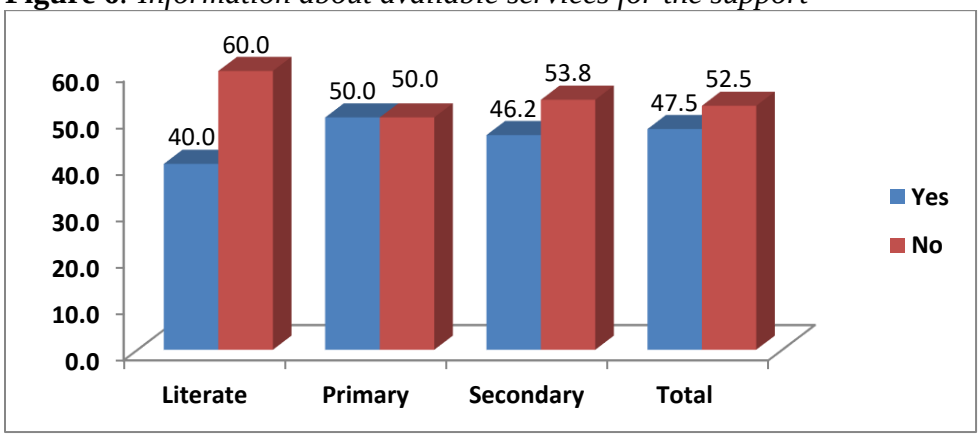
Figure 5*: Status of remittance recipient*



Status of Information for Support

Of the total respondents, about 52 per cent returnees don't have knowledge about the information of support program for returnee migrants. Nearly 46 per cent returnees with secondary education, 50 per cent with primary education and 40 per cent literate returnees have knowledge about the information regarding support program (Figure 6).

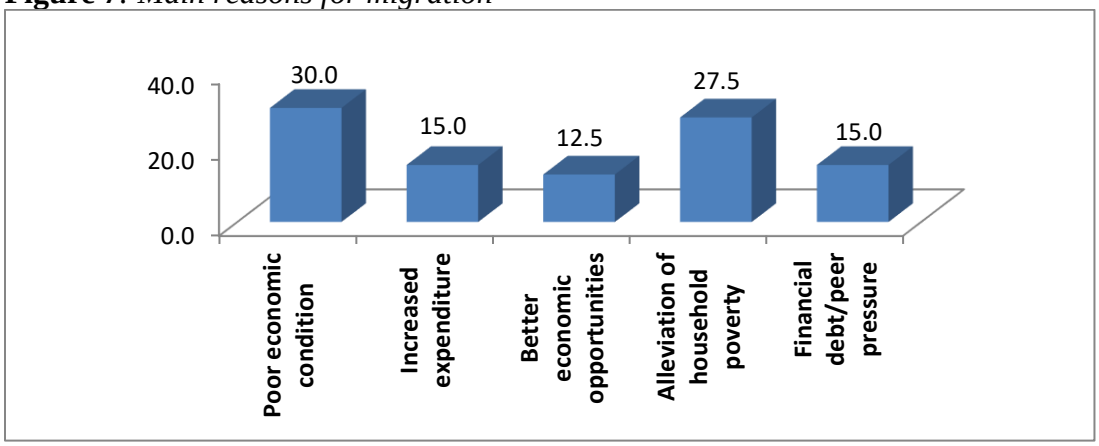
Figure 6*: Information about available services for the support*



Main Reason for Migration

In general push and pull factors are the major drivers of migration. There are multiple reasons for migration. Figure 7 reveals that the main cause of migration is poor economic condition which comprises 30 percent which is followed by alleviating household poverty (27.5%), due to increment of expenditure (15%), financial debt/peer pressure (15%) while 12 per cent migrated for grabbing better economic opportunities.

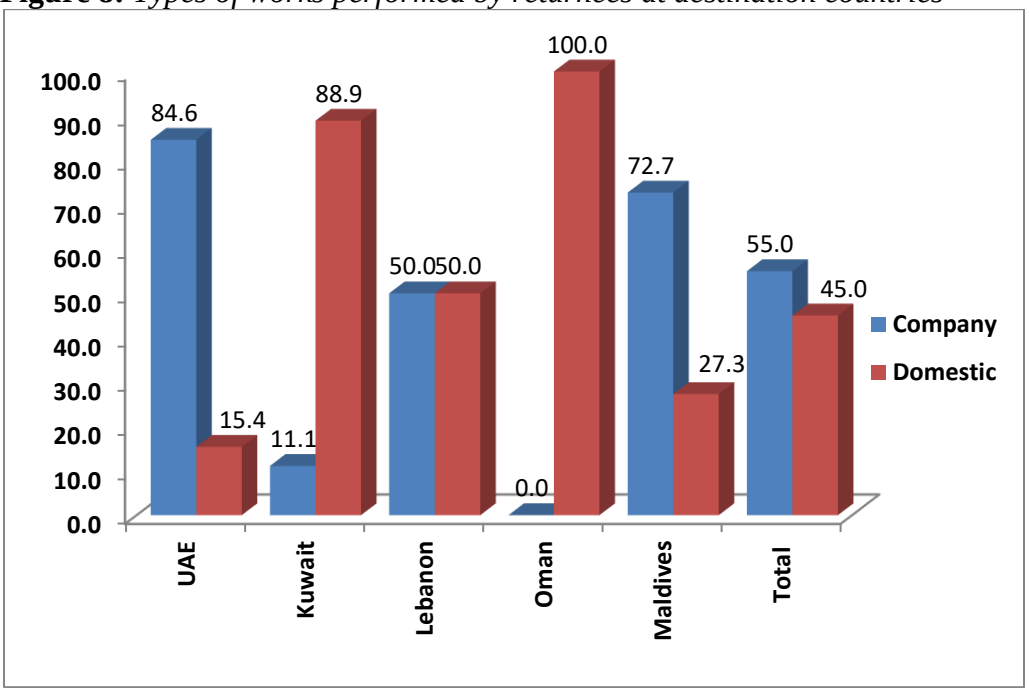
Figure 7*: Main reasons for migration*



Types of Work Performed by Returnee Migrant Workers

Most of returnee migrant workers worked in domestic and company work.. The proportion of returnee migrants from Oman who engaged in domestic work is found highest (100%) which is followed by Kuwait (88.9%), Lebanon (50%) and Maldives (27.3%). Similarly, the proportion of returnee migrants from UAE who engaged in company is found highest (84.6%) which is followed by Maldives (72.7%), Lebanon (50%) and Kuwait (11.1%) (Figure 8).

Figure 8: *Types of works performed by returnees at destination countries*



Understanding of "Return" and "Reintegration"

The term “return” is the process of rescuing and retuning back workers working in foreign countries to their homeland. Return is referred to the returning of migrant workers after working in foreign land. Some return after having a good tenure with good earning while some return after facing many difficulties. Return can be explained as workers leaving for foreign employment

mostly according to the contract signed and following various processes according to Nepal government. They must return after completion of their contract and work but some return with a problem and some return with no problem. Any processes that include workers returning to their own country are known as returnee. There are problems related to this topic regarding the situation of the family before and after leaving for foreign employment. In case of "return", Nepal government should ensure migrant worker's willingness to return to their home country by arranging their immediate return. For instance, at present, many migrant workers are facing many difficulties and want to return to their home country due to lockdown. So, arranging immediate return of those migrant workers should be the primary responsibility of the government.

Reintegration is the process of helping returnee migrants through different packages and programs to initiate their own business or entrepreneurship. So, re-integration refers to a process of giving all the rights and provisions to those migrant workers that help them settle in their home nation. For re-integrating migrant workers, there should be proper arrangements where they can practice as well as utilize their skills, knowledge and experiences that they have learned during their time abroad. The immediate reintegration is necessary for those who return with trouble, vulnerable and from problematic situation. Thus, for reintegrating returnees, especially three level of reintegration is essential asocial reintegration, economic and psychosocial reintegration.

Attention Paid to Return and Re-Integration

The government of Nepal has framed various migration governing laws and policies. The Foreign Employment Act, 2007, Foreign Employment Regulation 2008, Foreign Employment Policy 2012 and Constitution of Nepal 2015 are the laws and policies governing foreign labour migration. There are very few policy measures regarding return and re-integration. Those few existing policy measures are also not properly implemented. Therefore, policies should be made focusing on migrant workers' rights, access to resources, social protection, gender equality etc. There are separate laws and policies regarding return and re-integration. However, Foreign Employment Act and Foreign Employment Policy have the provision of return and reintegration. In current policy measures, very little attention has been paid to return and reintegration which is not conditional at all. This is a matter which needs to be under policy makers' attention.

From policy perspective, it seems the government has played a sensitive role in terms of return and reintegration of women migrant workers during crisis period like in COVID-19 situation; however, the effort is not sufficient. The existing policies lack the ideas of social and economic reintegration. Although the Foreign Employment Board has included this matter in yearly policy programs since past few years with strategical direction, the implementation part is very weak. The Ministry has also realized the need social and economic reintegration; however, the progress is not seen yet. In current policy, if there's a group of people who really want to come back and reintegrate in society, they need to be facilitated. This issue becomes the priority of everyone, but its implementation part has been awaiting since long past.

It is obvious that reintegration of returnee migrants takes time. There are many things that work under re-integration regarding the situation on mental and physical health, social and economic aspect. Women face different types of abuses at destination and some return with pregnancy. There are challenges on returning to their family and acceptance. These are the overall topics to look upon for re-integration. Nepal government should work efficiently to establish different policies as well as to amend existing policies to prioritize the social and economic re-integration with proper implementation plan. These policies should be able to address the issues related with women returnee migrant workers. Although, reintegration process is an on-going process which takes time, the government should work efficiently to establish different policies as

well as to amend the existing policies. The new policies should focus on migrant workers' rights, access to resources, social protection, gender equality etc. These policies should not put any condition from the human rights perspective.

Dominant Discourse Failing to Address Women Migrant Workers

Majority of people belong to Aadibasi Janajati (indigenous nationalities) in this study and people from Tamang community going to foreign employment are more in number and People from Dalit community going to foreign employment are less. In the case of trafficking, that is, if any girl, boy or mass population, and third gender fall vulnerability of trafficking, how existing laws and policies support for the immediate rescue, return, resettlement and rehabilitation is the matter raised as a dominant discourse. There are legal provisions but in behavior, there are various missing factors, loopholes due to which we can see individual interest and attitudes playing over. For and foremost, different categories of people who come back with different economic status need to be addressed with specific policies. In the name of protecting workers travelling abroad for employment, the Nepal government issued an order banning Nepali citizens from travelling to the Gulf for jobs as domestic workers. But this stopped many girls who used formal channels to go abroad and do labour for self and family hand to mouth. The government has a saying as to protect women migrant workers from trafficking and violence; various illegal touts are being used to take these girls which have the chances of vulnerability. Therefore, Nepal government should also work effectively ensuring foreign labour the motivational factor unless enough alternatives inside the country are developed by providing them with different skills and arranging different provisions. It's the accountability of the government by taking responsibilities and delivering positive outcomes on the matters related to foreign labour.

Companies' Preference and Women Migrant Workers' Experiences

There isn't much bias toward workers in terms of gender, class, caste, education in foreign employment as the employers are foreign companies. The company has separate criteria where employees are chosen accordingly in terms of gender. Talking about education it's easy to employ workers that are educated or at least able to speak English language. Personnel from the selected companies said, "we hire employees who are educated in the particular field." The employer doesn't really look upon class and castes. They would rather search for workers according to the needs of the company.

The number of people going to certain countries determines the perception as well. Women going to Israel are not more than 400-500 a year but nobody has gone there since last year because of the pandemic. More number of migrants go to the countries like Iraq, Lebanon so the bigger population of migrants can determine support level. Majority of women migrants going to foreign employment has negative stories. Because of their large population the order of them coming to the embassy is more and they present the records of cases. But the records of success and positive side of stories are not publicized by embassies. Good practices and cases are not shown. In conversation with women migrant returnees who have worked in gulf countries for 10/20 years, it is found they have been able to provide quality of life, quality education and many of them have sent their son and daughter to countries like Australia. This was possible only because they went for foreign employment though they worked as domestic workers.

The experiences of returnee women migrant workers are found mixed though. Some returnees have successful migration stories but some have bitter experiences at both destinations and native land. Most of the women shared their views that society overlooked them due to types of country of destination and their employment status as domestic work. Some returnees shared

their bitter experiences of exploitative situations in their country of destination whereas some expressed that they faced the problem of divorce and family disintegration.

Everyone's experiences and stories are different. Some of their family accepted them and they're having a good life while after returning from foreign country they've been through dispute. If she starts working hard to prove that she can earn a living and be dependent as a dispute resolution she is more likely to be progressive. While many of them have committed suicide because of his capability of tolerating the unsupportive family despite her hard works in foreign countries. Women Migrant returnees have been getting support, counselling from local level stakeholders. Family should feel the struggle she has done in foreign country.

Experiences of Women Returnees on Land Ownership

Land and property ownership has significant meaning for returnee women to maintain balance life after return to Nepal. The level of confidence is higher with those who have landownership than those who do not have. Most of the women migrants belong to Janajati group who do not have land and resources ownership that is why they feel insecure after return to native land. So, the government should have provision of loan with low interest rate or soft loan and grant for initiating self-employment or entrepreneurship. The land ownership is intricately related with economic empowerment which enhances returnee women for decision making on their behalf. So, reintegration packages need to be provided to those returnee women migrants who do not have land and property ownership.

Experiences Considering Gender, Class, Caste and Education

The experiences of returnee women migrant workers vary along with gender, class, caste, and education. Those who are upper caste, educated and male have better experience of migration in comparison to female who are illiterate, are from low-income family and from Dalit caste. However, in the case of women if they come up with money, they are accepted somehow. Furthermore, returnee men are well supported and taken as an example in their society when they return to their country while returnee women are doubted in every decision they take. They are not well respected and accepted in their society when they return from foreign land no matter what work they do.

Most of the women went foreign land due to failure and dissatisfaction of previous works. Familial dispute, domestic violence, psychological pressure or torture for being infertile etc. are the leading reasons to decide to leave the nation for either kind of work in a foreign land. Very few of them have gone along with the consensus and agreement of family members. They go, work and return due to several reasons. In some cases, the husband has accepted her due to her changed appearance or her economic status. But in other cases, she realizes everything has collapsed when she returns. A lot of them have realized that they have gained some money, experience and skills and want to do something in their own country rather than going back to foreign land.

Mostly educated people go to better countries in terms of earning and security so there is no problem and no need of reintegration packages for them. But the women with low level of education and who are economically, socially deprived require reintegration packages and programs. The social cohesiveness also determines the social and economic reintegration of the returnee women migrant workers. Due to patriarchal social structure, returnee women in comparison to man face more challenges like stigma, viewed doubtfully and are more vulnerable. Men have easily acceptable in comparison to women after return in native land. Therefore, returnee women migrant workers should be given priority for their reintegration as they are more exploited and excluded in terms of these issues. Although, there is a provision of special protection to

migrant workers according to the constitution; this kind of provision has not been successfully implemented on a practical basis and needs concrete implementation program.

Experiences of Women Returning from "Better Status" Job Opportunities to Worse

There is a difference in way people treat people returning from better status jobs and country with good income and those who did not. People who return in a good circumstance with a good income are accepted as well as respected in society while those who did not are looked down upon by people in the society. If women came from better status of job and returned from Europe, America and with huge amount of money they are consider positive whether they did good or bad. Better jobs and country really matter from society in terms of social reintegration. The returnee women from Japan, America, European countries would be perceived with high status, respectfully treated while those returned from Qatar, Dubai, Malaysia and similar countries are perceived as poor and backward. So, the destination countries and states of job are the substantively determining factors for developing perception of people to returnee migrant workers.

Structural Weakness Exposed by Covid-19

Lockdown because of pandemic situations exacerbate risks of violence, exploitation, abuse or harassment against women, as has been seen during the COVID crisis. Women's voices are still not well represented. In the context of the COVID-19 crisis, the fear is that gender employment gaps like these leave women more vulnerable than men to job loss but access to justice and service mechanism is limited that is major challenges to get access in available welfare service to returnees. Most of returnee women from GCCs are domestic workers where they were vulnerable and compelled to work for longer duration of time. Furthermore, they suffered from insecurity and violence and they have very limited access to the right information and access on the available opportunities.

Migrant women are particularly vulnerable in these situations, due to language and information barriers. Due to the pandemic and the subsequent movement restrictions, jobs losses, cramped living situations and economic pressures that households are under, there has been a substantial increase in levels of domestic violence; however, many support services remain temporarily closed. Similarly, migrant workers are often excluded from accessing the COVID-19 measures implemented by the countries in which they work, including financial support packages, wage subsidies, income support and social protection. Migrant women, especially those in precarious and informal employment, as well as those with irregular migration status, were already facing barriers to accessing health care and maternity protections before the pandemic.

Most of the returnee migrants are found to have mental health problems. They also face different social problems along with psychological problems. All these affairs arise due to lack of proper policies and programs. Likewise, ignorance of migrant workers' family in these issues is also a major weakness when it comes to women returnees' welfare. For migrant workers, including domestic workers who have lost their jobs, they are getting problems for assistance and social protection and repatriation due to weak government mechanism.

Due to the structural weakness migrant women are facing lack of comprehensive and timely support that be provided to the vulnerable migrant population. Effective coordination among relevant parties in both countries, including the governments concerned has missed to be facilitated women migrant workers. Most of the returnees experienced a significant number of negative emotions such as being worried, afraid, restless, and anxious. Economic problems, family concerns, fear of being exposed to the virus, information overload, lack of social support, and language barriers were major sources of stress.

Reflections of existing support and expectations of support system were missing during this pandemic. Due to structural berries women returnees are unaware in sources of support, adequate information and rapid mechanism for rescues, compensation and re-integration. Stigma and discrimination in the host country coupled with a lack of social support could be a major stressful factor for migrant residents in any host country during any major crisis. There are very few women representative who are involved in policy making. Thus, this is a structural weakness exposed before COVID- 19 as well as while in COVID times. As there are no women representatives, there is no one to raise issues related to women returnee. Likewise, very little to no topics concerning women returnees' welfare is discussed in policy discussion panel. This issue is prevalent in every part of Nepal which needs to be resolved. Women should be given chance to stand along with men in that policy making role representing other women.

Reintegration Support for Returnees

The reintegration support is not same for documented returnee migrants, trafficked persons and undocumented returnees. The government of Nepal has the provision of reintegration programs for documented returnees and survivors of trafficking but there is no provision of reintegration packages to undocumented returnees due to their illegal status and lack of required documents to meet the requirement for the packages. Reintegration policy and programs are the key to reintegration process. However, government of Nepal does not have policy provision of reintegration to undocumented returnees. The inequality is seen in between documented and undocumented returnee migrants.

Mostly, the women domestic migrant workers who worked as housemaid having low level of education especially returned with undocumented status and most of the cases of trafficking is related with the undocumented women migrant workers. There is no policy provision of government to rescue and repatriate to such migrants and there are barriers to get facilities and services offered by government of Nepal due to their illegal status at destination and at their homeland. It is obvious that those who have returned with legal status have better access on the government support rather than undocumented returnees.

In some cases, the perception of society towards high and low earning returnees is different and sometimes the country of destination also has different values in terms of reintegration. Returners who have high earnings and from developed have better access of reintegration services of government and they also get positive responses, but the scenario is different for returning from gulf countries having low level of earning. So, it is easy for women returning from Israel and other developed countries to be reintegrated as she is easily accepted by society. Whereas those coming back from gulf countries with low level of income is difficult to be reintegrated in the society due to perception. So, the reintegration plan, policies and program need to orient towards the returnee migrants regardless of their legal status.

Conclusion

Nepal is one of the major labour sending countries in the south Asia in terms of contribution to national GDP. There are different legal and policy provisions in terms of foreign labour migration but there is a not specific legal and policy provision for return and re-integration especially of returnee women migrant workers. Majority of returnee women from Gulf countries were involved in domestic workers where they went by denying the prohibitory legal provision result in illegal/undocumented status. The reintegration of returnee women migrant workers from richer country with better income is not difficult and problematic however the returnees from Gulf with low income is observed and found problematic. The household relation with family has been destroyed and marital relations have turned into divorce leading to traumatic situations.

During COVID-19, the burden of work of domestic migrant workers has drastically increased and abuses to them inclusion physical and sexual violence has reached paramount. In some cases, the violence against returnee women has increased after return to Nepal. In such situation, both types of women, after return in Nepal, need especial psychosocial counseling with appropriate care. Some returnee women returned with some knowledge, skills and experiences that have the aspiration to do something in the native land need to make especial policy and plan for their effective and sustainable re-integration here in Nepal. The existing legal and policy provisions are itself proved that they are not working so need to amend. The lack of especial policy provision and program to testing the skills of returnee women also compel them to adopt the third or illegal way to involve in remigration process. The negative perception of society and relatives to returnee women also increases the level of stigma which stands as the barrier to psychological, social and economic reintegration in the host communities.

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Impact of Project Method on Students' Achievement in Science Learning

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Abstract

This study carried out to find the impact of project method on student-centered teaching approach in biology at community schools in Nepal. The research used a quasi-experimental design involving experimental and non-experimental groups to compare achievement outcomes. All 9th grade students were population of the study and 50 students were selected as the sample. Quantitative data from pre- and post-tests and qualitative data from classroom observations and interviews reveal that students taught through the JIGSAW method demonstrated higher academic achievement and greater classroom engagement. The project method fosters essential skills such as leadership, communication, collaboration, and critical thinking, promoting a deeper understanding of biology. The findings highlight the need to shift from conventional to student-centered pedagogies to meet the demands of a modern, science-driven society. This research fills a critical gap by providing empirical evidence on the practical application and impact of project-based learning in Nepalese secondary science education.

Keywords**:** *Project-based learning, JIGSAW method, learning, Biology teaching*

Introduction

Education is the natural, harmonious, and progressive development of an individual's innate power and moral character, enabling them to control their environment and fulfill their possibilities (CDC, 2076 BS). In modern educational contexts, traditional teaching methods in Nepal have predominantly been teacher-oriented, where students are expected to be passive receivers of knowledge rather than active participants in the learning process (Pandit, 2070 BS). As an integral part of human society, science education requires systematic observation and practical application to develop critical knowledge and skills necessary for modern living

(English Dictionary, 2016). The project method, a student-centered approach focused on asking meaningful questions, offers a revolutionary alternative to conventional teaching methods by emphasizing "learning by doing," "learning by living," and "learning through association, cooperation, and coordination" (CDC, 2076 BS).

This research specifically examines the effectiveness of the JIGSAW method as a collaborative project-based learning approach in teaching biology in community schools, where the current science curriculum divides learning into 75% theoretical and 25% practical components (CDC, 2072 BS). Despite sufficient evidence supporting the effectiveness of project-based learning in enhancing students' understanding and knowledge application, educators face challenges in providing concrete proof of student learning achievements in an education system that primarily emphasizes traditional assessments (Pandit, 2070 BS).

Implementing project-based learning through the JIGSAW method creates opportunities for students to interact meaningfully with content, develop critical thinking skills, and construct their understanding through active engagement inside and outside the classroom (Mevrill et al., 2004). Unlike the lecture method popular among Nepalese teachers for its ease of implementation, the JIGSAW method fosters the development of essential project skills, including leadership, decision-making, trust-building, conflict management, and effective communication (English Dictionary, 2016). This research employs a comparative methodology involving experimental and non-experimental groups to measure achievement scores and evaluate the impact of the JIGSAW method in biology education at school A (CDC, 2072 BS).

Through structured questionnaires and field observations, this study investigates how project-based learning addresses the limitations of traditional teaching approaches by providing students with real-life experiences and opportunities to solve problems related to natural and scientific phenomena (Mevrill et al., 2004).The findings from this research will contribute valuable insights into how educational practitioners can effectively transition from teacher-centered to student-centered methodologies to enhance learning outcomes and prepare students for the demands of our rapidly evolving, science-driven society (CDC, 2076 BS).

Theoretical Underpinning

This study is grounded in multiple theoretical perspectives that explain how students learn and how teaching methods influence achievement. From the realist learning theory**,** it is understood that the mind operates like any other material entity, with mechanical functioning and without intrinsic reactive ability; its development is seen as a consequence of changes in the material world (Charles & Akilesh, 2016). Educational productivity theory**,** proposed by Walberg, emphasizes that learning outcomes are a function of personal attributes, instructional quality, and environmental influences, integrating findings from thousands of studies to support its validity. Walberg identified nine key factors influencing learning: student ability, motivation, instructional quantity and quality, and supportive environments like home, peers, and classroom climate (Walberg, Fraser & Welch, 1986). These variables were categorized as personal, instructional, and environmental, highlighting the complex interplay of student characteristics and contextual influences on learning outcomes. In addition, the constructivist learning theory posits that learners actively construct knowledge based on their experiences, mental models, and social interactions (Elliot et al., 2000). Constructivism holds that teaching should facilitate experiential learning, promote critical thinking, and emphasize the relevance of learners' prior knowledge.

Furthermore, Vygotsky's social constructivism underscores the role of social interaction, scaffolding, and the Zone of Proximal Development (ZPD) in cognitive development, suggesting

that students can achieve higher learning outcomes through guided support. This research also draws on John Dewey's pragmatism**,** advocating for "learning by doing" and emphasizing hands-on, experiential, and project-based learning to make education meaningful and democratic. These theories provide a comprehensive foundation to explore how instructional methods, personal attributes, and social contexts influence science learning, especially in diverse sociocultural environments.

The project is an activity done by learners to complete a specific learning experience, and it is an integral part of the school curriculum. The project is a method of learning and teaching where the teacher guides the student to visit certain places with the internal to learn. It is different from a tour, where people go for a relationship. Cheeap (2008) also supports that the project method is a way of presentation by taking the students to study outside the class environment. Using the environment as a learning natural resource stimulates the students' creativity, information can be more comprehensive and real-time, and students can seek and process the data by themselves.

Empirical Insight and Research Gap

Empirical evidence suggests that student-centered teaching methods such as inquiry-based, project-based, cooperative, and heuristic learning significantly enhance student participation, self-regulated learning, and academic performance. Studies by Shrestha (1975), Budhathoki (2004), and Ghimire (2016) demonstrate the superiority of these methods over traditional lecture-based instruction in science and mathematics education. Research by Koirala (2019) and Akkus et al. (2007) further indicates that heuristic and inquiry-based approaches lead to deeper conceptual understanding and improved scientific literacy. The role of teachers as facilitators, as emphasized by Monika (2012) and Brandies et al. (2013), supports the development of critical thinking and problem-solving skills in student-centered classrooms. According to Mulyasa (2005), projects and fieldwork connect classroom learning with real-world experiences, fostering students' observational and analytical abilities. However, studies like Prasart (2017) reveal inconsistencies between teacher expectations and actual classroom practices regarding inquiry-based instruction. Despite the broad examination of student-centered strategies, limited research has focused explicitly on the effectiveness of the project method in biology education in the context of Nepal. Current literature does not provide adequate evidence on how the project method impacts students' achievement in secondary-level biology classes. Moreover, contextual factors such as curriculum design, school infrastructure, and teacher preparedness necessary to implement such methods remain underexplored. Therefore, a significant research gap exists in understanding the effectiveness and practical application of the project method in enhancing biology learning outcomes in the Nepalese education system.

Methodology

The research methodology employs a Quan-qual design focused on a quasi-experimental design involving both experimental and non-experimental groups to assess the impact of the JIGSAW method in biology education at School A. Participants include students from 9^{th} grade allowing for a diverse representation of the student body. Using the JIGSAW method, data is collected through structured questionnaires that measure student achievementtest. Additionally, field observations are carried out to provide qualitative insights into the implementation process and student interactions during project activities.

To ensure reliability and validity, the questionnaires are pre-tested and refined based on feedback from educational experts. Descriptive and inferential statistical analyses will be utilized to analyze quantitative data, measuring achievement scores before and after the intervention.

Qualitative information from observations were thematically analyzed to identify common patterns and insights regarding student experiences. The study also involves interviews with teachers to gather information on their instructional practices and challenges in implementing the JIGSAW method. Ethical considerations, including informed consent and confidentiality, are prioritized throughout the research process. Ultimately, the findings intend to provide actionable recommendations for educators looking to enhance student-centered learning in science

Results and Discussion

The analysis process focuses on the impact of the intervention. First, the pre-test results were analyzed to understand the baseline data, followed by a similar analysis of the post-test results to evaluate changes over time. A comparison was made using a bar graph to illustrate the mean achievement scores of both the experimental and non-experimental groups, highlighting any differences in outcomes. Additionally, the pre-test and post-test results were analyzed to determine whether the project method yielded better results than traditional methods. Finally, the T-values for the pre-test and post-test comparisons between the experimental and non-experimental groups were calculated to provide statistical insight into the significance of the observed changes.

Table 1. *Analysis of the achievement scores of the project and the non-experimental group in a pre-test.*

Groups	No. of students	Scores	Mean	S.D.	Variance	Coefficient of variation
Experimental group (group A)	25	373	14.92	4.09	16.79	0.27
Non-experimental group (group B)	25	375	15	4.37	19.12	0.29

From the above result, achievement scores of experimental and non-experimental groups of students were found to be equivalent and homogeneous in the pre-test.

Table 2. *Analysis of the achievement score of a project and the non-experimental group in the post-test*

Groups	No. of students	Scores	Mean	S.D.	Variance	Coefficient of variation
Experimental group(group A)	25	515	20.6	5.38	29.04	0.26
Non-experimental group(group B)	25	425	17	5.03	25.36	0.29

There was some variance in the achievement of the project method and lecture method, whereas these two groups of equivalent groups were from the governmental school. They have children from different ethnical, socioeconomic backgrounds, different learning environment casts, cultures, family environments, different instructional materials, and different academic levels. The project method is an innovation and a student-centered approach. It helps to create self-contained, self-facing, and self-learning instructional material with minimal positive support from the teacher.

Table 3. *T-value of the pre-test result of the experimental and non-experimental groups*

Group	Mea	Standard	varianc	Mean	Calculat	Degree	Level of

	n	deviation	e	difference	e t-value	of freedom	significance
Experimental group (group A)	14.92	4.09	16.79	0.08	0.67	48	0.05
Non-experimental group (group B)	15	4.37	19.12				

The null hypothesis is accepted. Hence, there is no significant difference between the two mean pre-test scores, i.e., the two groups were homogeneous and equivalent.

Table 4. *T-value of the post-test result of the experimental and non-experimental groups*

Group	Mean	Standard deviation	variance	Mean difference	Calculate t-value	Degree of freedom	Level of significance
Experimental group	20.6	5.38	29.04	3.6	2.44	48	0.05
Non-experimental group	17	5.03	25.36				

The null hypothesis is rejected. Hence, there is a significant difference between the two mean scores of the post-test, i.e., the achievement score of the experimental group is greater than that of the non-experimental group.

Table 5. *Achievement number and percentage of students in the pre-test.*

Group	Total no. of students	Achievement no. of students (Above 40%)	Achievement percentage of a student (Above 40%)	Achievement no. of students (below 40%)	Achievement percentage of student (Below 40%)
Project group	25	22	88%	3	12%
Non-experimental group	25	21	84%	4	16%

According to this data, there was a narrow difference in the achievement rate of students in the pre-test of both groups. The Project groups 88% are achievement percentage of student (above the 40%) and 12% are achievement percentage of student (blow the 40%) and non-experimental groups 84% are achievement percentage of student (above the 40%) and 16 percent are achievement percentage of student (blow the 40%).

Table 6. *Achievement number and percentage of students in the post-test.*

Group	Total no. of students	Achievement no. of students	Achievement percentage of the student	Achievement no. of students	Achievement percentage of students

		(Above 40%)	(Above 40%)	(below 40%)	(Below 40%)
Project group	25	24	96%	1	4%
Non-experimental group	25	22	88%	3	12%

According to this data, there was a difference in the achievement rate of students in both groups in the pre-test. The Project groups 96% are achievement percentage of student (above the 40%) and 4% are achievement percentage of student (below the 40%) and non-experimental groups 88% are achievement percentage of student (above the 40%) and 12 percent are achievement percentage of student (below the 40%).

Data Analysis

The qualitative data analysis based on the theme discussed below:

Active Participation of the Students in the Biology Project Work

Students are active participants in the teaching project method. Most participants express their views that student wants to learn, the learning by doing method, but in this era, to promote the lecture method, it is easy to teach. Project teaching methods are learning by doing. In this method, students are active learners, but teachers are passive. This method only focuses on the student-centered method. In this method, the teacher is only a good facilitator, guide, and provides the essential apparatus and equipment for the student's task or learning activities. Student works in a peer group to solve this problem. This method makes student wants to be more curious. The researcher acted as an observer and perceived their entire activities for the whole teaching learning process. There was discussion about confusing subject matter among students and between students and the teacher. All participating students have good discipline and followed the rules and regulations in the project and the classroom. They showed a good attitude toward positive learning, and all participants followed the researcher. Hence, it also indicated that the teaching process of the project group A is more active and effective in their class.

Regularity of the Students in the Classroom

There was no absence of student in their regular classes. It was proven that the project method's effectiveness as a teaching method and teaching learning strategy in the classroom regarding classroom attendance. The techniques and strategies enhance the regularity of students. These indicate students are developing positive thoughts towards their learning activities, which is reflected in their regular attendance. Participants' views suggest that students were excited to perform their task through experiments. Due to the project, teaching and learning activities have constant regularity.

Views of participants on the impacts of the Project Teaching Method

Participants strongly appreciated the student-centered teaching method, highlighting how it fosters engagement and excitement through hands-on activities and experiments. They noted that this approach facilitates active participation and enables students to identify and solve problems collaboratively. Many participants emphasized:

> *The opportunity to conduct experiments and engage in group discussions allows them to discover results independently, enhancing their understanding and retention of knowledge.*

Additionally, they remarked on the development of a scientific attitude and increased self-confidence as significant benefits of this method compared to traditional teaching

approaches. Participants feel this interactive and inquiry-based learning environment significantly contributes to their educational experience.

Discussion of Findings

The study's findings reveal significant insights into the impact of the project method compared to traditional teaching in science education. Both groups demonstrated similar mean scores in the pre-test, indicating a comparable baseline knowledge. However, the post-test results showcased a notable improvement for the experimental group, with a mean score of 20.6 compared to 17 for the traditional group, highlighting the project method's positive impact on student learning. The t-test results further substantiate these outcomes, showing a significant difference in achievements post-intervention. Students engaged in the project method exhibited improved academic performance and increased creativity and scientific skills. The achievement percentages in the post-test reveal that 96% of the experimental group scored above 40%, compared to 88% for the control group, underscoring the method's effectiveness.

Additionally, the greater mean difference from the project method compared to the heuristic method indicates its superior impact on learning outcomes. It suggests active, hands-on approaches foster deeper understanding and retention of scientific concepts. Overall, the findings emphasize incorporating innovative teaching methodologies like project-based learning to enhance student engagement and success in the classroom. The results support a broader adoption of such methods in educational settings to fulfill diverse learning needs.

Conclusion

The findings of this study suggest that the project teaching method significantly enhances student achievement in biology education compared to traditional lecture methods. The notable improvement in post-test scores indicates that engaging students through collaborative and hands-on activities fosters a deeper understanding of the subject matter. This approach promotes academic success and cultivates essential skills such as teamwork and a scientific mindset. Consequently, incorporating project-based learning in science education could be a necessary strategy for enhancing student engagement and performance.

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Beyond the Classroom: The Emergence of Home Schooling as a Shift Away from Formal Schooling

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Abstract

The practice of teaching school-age children at home or in various locations other than schools is known as homeschooling. Home schooling is gaining momentum as a flexible and personalized alternative to formal education. It offers parents greater control over curriculum and learning pace, addressing individual student needs and educational gaps often unmet in traditional classroom settings. This article aims to present a concise overview of the key characteristics of homeschooling and to explore the underlying factors influencing parents' decisions to decide on for home-based education for their children. This study employed a thematic literature review methodology, analyzing existing peer-reviewed empirical research on home schooling to identify key themes, benefits, and challenges. The review critically examines home schooling as a viable alternative to formal education in contemporary contexts. In this review, majority of studies on homeschooling find that it has an encouraging influence on learners compared to those who attend institutional schools; nevertheless, some studies arrange for contrary findings. In terms of social, cognitive, and emotional growth, maximum studies indicate that homeschooling produces distinctly better results than traditional schooling. The conclusions derived from these studies provide a summary of specifically selected research on the development of homeschooling, along with final reflections and recommendations for future research in this area home schooling is emerging as a flexible and personalized alternative to formal education, offering parents greater control over curriculum and learning pace. It challenges traditional schooling by addressing individual needs, especially in contexts where formal systems may be limited or ineffective.

Keywords: *academic performance, homeschoolers, home schooling, education system, alternative education*

Introduction

Home schooling is an educational approach where children learn at home under the guidance of parents or tutors instead of attending traditional schools. It offers flexibility in curriculum and pace, often tailored to suit individual learning needs and family values. With growing concerns over school environment, academic pressure, and personalized learning, home schooling is becoming a popular alternative worldwide (Baig, 2018; Gaither, 2008). In recent years, home schooling has emerged as a significant alternative to traditional formal education, driven by concerns over school environment, curriculum flexibility, and individual learning needs (Ray, 2017). Especially after the COVID-19 pandemic, many parents have turned to home-based education to ensure personalized and safe learning experiences (Kunzman & Gaither, 2023). Home

schooling offers autonomy, customized pacing, and family-centered learning, challenging the conventional one-size-fits-all approach of formal schools. As its popularity grows globally, understanding its implications, effectiveness, and challenges becomes essential for educators and policymakers.

The practice of teaching school-age children at home or in various locations other than official schools is known as homeschooling. Many home education families use less formal, more tailored, and personalized methods of learning that are not necessarily found in schools. These techniques are typically led by a parent, tutor, or online teacher. The word "home education" is mainly used in Europe, whereas "homeschooling" is the one that is most frequently used in America to describe the practice of educating children at home (Ray, 2017). It is important to distinguish homeschooling from remote education, which is defined as an arrangement in which a student learns autonomously at home from their parents as opposed to being shaped by and adjusting to the demands of an online school (Mazama, 2016).

Families who wish to spend more quality time with their children, live in distant rural locations, are temporarily abroad, travel frequently and so find it physically difficult to transport their kids to school, or simply want to spend more time with their children can all choose to homeschool. Children who are unable to attend school regularly or who require special education services may also be homeschooled in part due to health issues or special needs. From a small number of papers and studies in the mid-1980s to an abundance of theses, dissertations, book chapters, and an increasing number of fundamental qualitative and quantitative studies, the body of scholarly research on homeschooling has expanded (Murphy, 2012; Ray, 2013).

Many students were forced to study from home as a result of the COVID-19 pandemic, which caused school closures all around the world. It can be claimed that this was mostly implemented as distance education rather than traditional homeschooling, in which parents educate their child independently from school, because the mainstream of curriculum was outsourced to homes and specified and verified by virtual schools. In Nepal, the children attend formal educational institutions. The Nepalese government has implemented homeschooling, which appears to be quite beneficial even in the post-pandemic situation. Parents have chosen to continue homeschooling their children despite the COVID-19 pandemic after realizing that their child is facing social or pedagogic difficulties at school. Homeschooling was instituted by the Nepali government, and it appears that it will be highly beneficial even in the post-pandemic situation. The purpose of Home School Management Facilitation Material 2078 is to encourage the use of the home as a classroom both during and after the COVID-19 epidemic (CEHRD, 2078).

During the lockdown, some families found that spending more time together was enjoyable, and other children learned that learning took place more effectively at home. Parents may have chosen to keep homeschooling their child after realizing that they were facing social or intellectual difficulties at school. Because of COVID-19, there has been ongoing worry that homeschooling is creating new educational disparities for children. Due to school closures, children's education is now more dependent on the social and domestic conditions of their families. The pandemic has demonstrated that Nepal's poorest families lack access to the resources needed to provide for their children's education. In this case, homeschooling will be the most advantageous substitute for traditional education.

Objective of the study

- To provide a concise overview of the defining characteristics and key attributes of homeschooling practices.

- To examine the pedagogical, socio-cultural, and policy dimensions of home learning through a comparative analysis of existing studies.

Methodology

This study employed a thematic literature review methodology, analyzing existing research and reports on home schooling to identify key themes, benefits, and challenges. The review critically examines home schooling as a viable alternative to formal education in contemporary contexts. To initiate this review and fulfill its objective, an annotated bibliography with a homeschooling focus and Google Scholar and other internet databases are important sources for the searches. I looked for terms like "homeschooling," "home education," "social development," "reasons for homeschooling," and "academic performance" while searching the literature. Reviews of homeschool research from the date 2002 to 2023 AD are included in the reference list.

A large number of studies on homeschooling have not provided precise or stringent standards for the inclusion of studies or publications for evaluation. In light of this, I have observed a notable increase in homeschooling studies published in peer-reviewed publications throughout the last twenty years, and this development has up-to-date the methodology of this review. This paper focuses on a thematic review that understands how homeschooling affects student outcomes by using peer-reviewed empirical research. Peer review is still highly valued in academia, despite continuous scholarly disagreement concerning the relative merits of papers published in peer-reviewed research publications (Sampson, 2014). This thematic review employed an organized approach to identify, analyze, and generate relevant literature on home learning. Studies were selected based on inclusion criteria, and repetitive themes were extracted to provide conceptual clarity and monitor upcoming study guidelines.

Results and Discussion

The findings from the reviewed literature revealed several habitual themes related to the practices, challenges, and outcomes of home learning. This section discusses these themes in detail, highlighting key insights and their implications for educational exploration and policy. In this section, results and discussion from homeschooling literature have presented in four different themes. This section offers a comprehensive exploration and synthesis of literature focused on the conceptual development of homeschooling, the underlying motives driving families to choose home education, empirical evidence regarding the social development of home-educated learners, and the academic performance outcomes associated with homeschooling.

Conceptualizing the Development of Home Schooling

The current home school movement had its start in the 1970s when educational reformer and theorist John Holt started claiming that conventional schools' emphasis on rote learning and a strict classroom setting was to blame. Holt urged parents to abandon formal education and substitute an approach now referred to as "unschooling" for their children's education. Early adherents of Holt stayed in touch via the 1977 publication growing Without Schooling. Raymond Moore argues that homeschooling should continue until a child is eight or nine years old in order to provide them with an excellent educational, psychological, and moral foundation. He claims that early schooling is detrimental to children (Moore's 1981). The conceptual understanding of homeschooling has expanded beyond its early associations with educational rebellion to encompass a wide spectrum of practices ranging from structured curriculum-based learning to unschooling approaches. Scholars have conceptualized home education as not merely an alternative to traditional schooling but as a distinct pedagogical paradigm that emphasizes autonomy, flexibility, and individualized instruction (Ray, 2017). These evolving conceptual

frameworks suggest that homeschooling is not a monolithic model but rather a dynamic and context-dependent phenomenon.

Back when Holt and Moore started promoting homeschooling, it was permissible to teach children at home in all states, despite the occasionally strict regulations. In order to comply with regulations and submit their home education plans, early homeschoolers typically collaborated with their local school boards (Gaither, 2008). The 1980s saw a new wave of individuals enter the homeschooling movement, which altered the movement's tone. Motivations for homeschooling vary across cultures and families. In Western contexts, studies have identified a combination of pedagogical dissatisfaction, concerns about school environment, and religious or moral instruction as primary motivators (Baig, 2018; English, 2021). In contrast, in regions with underperforming or inaccessible public education systems, homeschooling may be driven more by necessity than ideology. The diversity in parental motivation underscores the need for a more nuanced conceptualization of homeschooling that reflects both choice and constraint.

As the circumstances changed, homeschoolers moved from the municipal to the state level and petitioned state legislatures to amend laws to allow for homeschooling in the United States. Homeschoolers disagreed among themselves about the appropriate level of regulation provided by the laws; whilst some found official testing and curriculum submission acceptable, others thought these demands were burdensome. While some states added only a few words or a sentence to their statutes, others created and enacted comprehensive home school statutes, some states experienced changes in education policy without the need for legislative action. States have many different policies regarding monitoring of homeschooling; some have none at all, while others have a number of regulations, like approved curricula or testing (Lois, 2012).

A critical aspect of the debate surrounding homeschooling involves its implications for children's social development. Critics have long argued that home-educated students may lack opportunities for peer interaction, potentially hindering socialization.

However, multiple studies challenge this assumption, indicating that homeschoolers often engage in a range of social activities through community groups, extracurricular programs, and faith-based networks (Ray, 2017). These findings suggest that social development in homeschooling contexts is not inherently deficient but is instead shaped by the intentional structuring of social experiences outside the formal school setting. In terms of academic performance, a substantial body of research indicates that homeschooled students often perform as well as or better than their traditionally schooled peers on standardized assessments (Murphy, 2012; Ray, 2017). Contributing factors include personalized learning, flexible pacing, and greater parental involvement. However, scholars also caution that these outcomes may be influenced by sampling biases, as many studies rely on self-selected participants from higher socio-economic backgrounds (Kunzman & Gaither, 2020). Thus, while academic benefits are evident, the need remains for more representative and longitudinal studies to validate these claims across diverse populations.

Solid evidence advocates that in countries as different as the United States, Australia, Brazil, Canada, England, Japan, Mexico, South Africa, South Korea, Scotland, and Russia, homeschooling has significantly improved both the absolute numbers and percentage of school-age children (Rothermel, 2015). The resurgence of home schooling after a hundred years has taken many educators and families by surprise. It has also captivated the imagination and involved thousands of families. Simultaneously, homeschooling has experienced exponential growth, primarily due to its growing recognition as a legitimate educational substitute. A growing number of families are starting homeschooling for pragmatic reasons, such as worries about bullying or

the subpar quality of nearby schools, rather than for educational or religious reasons. Overall, the literature highlights that homeschooling has developed into a multifaceted educational approach influenced by a wide range of ideological, practical, and contextual factors. As homeschooling continues to expand, particularly in the post-pandemic landscape, future research should aim to deepen conceptual understanding, examine equity issues, and explore its long-term educational and social impacts.

In the context of Nepal, homeschooling remains an emerging and less institutionalized practice, primarily driven by dissatisfaction with formal education and the desire for personalized learning (Poudel, 2020). Limited policy frameworks and social acceptance pose challenges, necessitating further research to contextualize its development within Nepal's diverse educational landscape. In 2077 BS, Nepal established the School Education Contingency Action Plan. The implementation of home schooling is intended to encourage families in Nepal to actively engage in their children's education, as stated in the Contingency Action Plan of School Education 2077 BS. Home School Management Facilitation Material, 2078 BS was created and executed in Nepal after it was realized that facilitation materials were needed for the concept's execution. Owing to COVID-19, learning has become more challenging, and it has been observed that the home must be converted into a classroom.

Motives Leading to Homeschooling

Nemer (2002) developed an extended framework of reasons based on the ideologue-pedagogue classification. Nemer (2002) asserts that some parents' motivations are multifaceted and that they truly fall in between the two preceding groups. Nemer's (2002) research offers a more comprehensive analysis of homeschoolers' motivations, extending the definition of ideological and pedagogical reasons into four quadrants that represent high and low degrees of each drive.

Hannah (2011) carried out a long-term study with compelling goals like meeting a child's specific requirements, taking care of their medical needs, and addressing safety and security concerns. The development of this final recognized rationale was done by Mazama and Lundy (2012), who contextualized safety and security concerns within the African American parent population whose primary motivation for homeschooling is racial protection. Researchers Mazama and Lundy (2012) conducted their own investigation in response to the claim that African American parents' motivations can be equated with "White motives". They discovered that the particular cohort of their study strongly believes that school racism is something that should be protected from because it can seriously interfere with children's development.

Four primary factors were identified by Brabant, Bourdon, and Jutras (2003) as the reasons why some Canadian families choose to homeschool.

Among these four are the following: a) the desire to work together on a family-led educational project; b) a strong disapproval of the way the school system is set up; c) the wish to provide a more advanced curriculum; and d) a genuine concern for the socioemotional growth of the kids. Homeschooling parents think that the best way to keep their children out of schools, which they view as being excessively violent and powerful sources of unwarranted peer pressure, is to keep them at home. Some families feel that the best way to ensure their children receive a high-quality education is for them to be strongly and actively involved in their education.

In a similar vein, Green and Hoover-Dempsey (2007) identified that the need for parental involvement in the educational process is the driving force behind the three main reasons that parents homeschool. Because they can help their children achieve academically, parents feel that they should be actively involved in their children's education. They also feel that the most important aspect that makes homeschooling possible is the family dynamic. The moms who

homeschool their children are characterized as "a population that is clearly involved in their children's education but in a very nonstandard way" by Green and Hoover-Dempsey (2007).
Using information from a federal poll as well, Montes (2006) discovered that, generally speaking, parents of both younger and older homeschooled children provide their children an education at home because they think they can give them a superior education (47%) and because they are religious (41%). However, Montes discovered that because the parents disagree with the curriculum of the local institutional school, younger homeschoolers are twice as likely to receive an education at home as their older counterparts. Compared to older homeschoolers, younger homeschoolers are three times more likely to be homeschooled in order to cultivate morality and character.

The reasons African-American parents opt for homeschooling have become the focus of some researchers' attention. Results from a quantitative examination of black families were comparable to what was previously mentioned. Additionally, almost 40% of the parents stated that they chose homeschooling because they wanted to provide their child with more education on African American and black history and culture, and 20% claimed that they did so because they wanted to "avoid racism in public schools" (Ray, 2015).

"The 'push-pull' factors that motivated black families in the Metro-Atlanta and Metro-DC regions to exit traditional schools in favor of homeschooling their children" were noted by Fields-Smith and Kisura (2013). It was discovered by the researchers that these black parents were able to instill in their children's black cultural values while exposing them to the world. According to the parents, homeschooling also enabled them to "slow down" their children's exposure to what might be considered "unsavory elements of school socialization". Research on minority homeschooling motivations is more extensive (Mazama, 2016). Due to the pandemic, a new order in the globe is taking place. In this situation, life has turned for better or more critical condition. The school has come closer to home so students are following the practice of homeschooling from 2020 onwards.

Parents' motivations for choosing homeschooling are diverse and often contextual. First, dissatisfaction with formal schooling is a widely reported motive. Many parents perceive public or private schools as lacking in academic rigor, safety, or inclusivity (Bauman, 2002). In Nepal, Poudel (2020) highlights growing parental concern over overcrowded classrooms, rote learning practices, and limited teacher engagement in government schools, which pushes families to seek alternatives. Second, religious and moral concerns play a significant role in homeschooling decisions, especially in Western contexts. Parents often wish to instill specific ethical values or spiritual teachings not accommodated by secular institutions (Ray, 2017).

While less documented in Nepal, cultural and spiritual orientations may still influence families in particular communities. Third, the emphasis on personalized learning emerges as a key theme. Homeschooling allows parents to tailor curriculum and pace to suit their child's individual learning style, interests, and needs (Kunzman & Gaither, 2020). This motive is especially relevant for students with special needs or those who do not thrive in conventional classrooms. Overall, motives are not mutually exclusive; they often intersect. Research suggests that parental agency, autonomy, and perceived educational quality are central to the rise of homeschooling as an alternative (Baig, 2018). In Nepal, these global patterns are echoed, though influenced by local socio-economic and educational challenges (Poudel, 2020).

Social development of the home educated children

The social development of home-educated children has been a topic of considerable scholarly interest and debate. Contrary to earlier concerns that homeschooling may isolate children

or hinder their interpersonal growth, recent research largely supports the notion that homeschooled children exhibit equal or even superior social skills compared to their traditionally schooled peers (Ray, 2017). This positive development is often attributed to the quality and diversity of social interactions these children engage in such as involvement in community activities, peer groups, sports, and volunteer work (Kunzman & Gaither, 2020). In many homeschooling settings, socialization is intentional and diverse rather than incidental and age-restricted, as in traditional schools (Medlin, 2013). Home-educated children often interact with individuals across different age groups and social backgrounds, which may enhance their communication, empathy, and adaptability skills (Neuman & Guterman, 2016).

In terms of the role that self-concept plays in children's psychological development, a number of studies have shown that learners who are homeschooled have a substantially higher self-concept than students who attend public schools (Medlin, 2006). Social Skills of Homeschooled Children. The only noteworthy difference in childhood social interactions between homeschoolers and institutional students, according one homeschool researcher, was that the former had greater problem conduct scores. However, the effectiveness of social development in homeschooling depends on parental involvement, access to extracurricular opportunities, and community support.

In the context of Nepal, Poudel (2020) notes that while urban homeschoolers often benefit from rich social networks and alternative educational groups, children in rural settings may face challenges due to limited social exposure and fewer structured activities. Overall, while homeschooling presents unique socialization opportunities, its impact varies based on context, parental choices, and available resources. The literature thus emphasizes that social development among the home educated is not inherently compromised but rather shaped by the quality of social experiences provided.

Some of the learners' excellent social skills may be explained by the level of community and neighborhood involvement that homeschoolers and their parents have. Time and again, studies reveal that parents of homeschooled children are highly involved in their communities, participating in events like church activities, sports teams, cooperative learning, and community service. Additionally, children who are homeschooled tend to engage with a wider variety of people than those who attend most institutional schools (Medlin, 2013).

Children with homeschooled acquire the necessary "skills, behavior patterns, values, and motivations" to be productive members of society. Like the earlier reviewed research, recent findings seem to indicate that homeschooled children obtain more than adequate socialization opportunities. Actually, a number of indicators such as the caliber of early friendships, the scarcity of behavioral issues in adolescence, openness to new experiences in college, and civic engagement in adulthood—indicate that homeschooled children may benefit from a different kind of socialization than students in traditional schools. Home school researchers have observed that the majority of parents who homeschool their children have different goals and aspirations for them than do parents who choice institutional schools (Morrison, 2015). If this is the case, one may wonder why modes of socialization that are established and normed with pupils in institutional schools are given so much attention, as well as standard metrics of social development.

Contrary to common concerns, research indicates that home-schooled children often demonstrate strong social development, benefiting from diverse, age-integrated interactions beyond traditional classrooms. Studies show they engage actively in community, religious, and extracurricular activities, fostering confidence and communication skills (Kunzman & Gaither, 2020). In Nepal, emerging practices suggest that home-schooled children develop social

competence through family networks and community-based learning (Poudel, 2020). However, the lack of formal peer interaction may present challenges in developing group dynamics and conflict resolution skills. Thus, the social experiences of home-schooled children are shaped more by the environment provided than the schooling method itself.

Academic Performance of Homeschooled Children

Concerns have been raised by certain observers regarding the studies' sample representativeness and whether or not just the top-performing homeschooled pupils are included in them, for instance. (Wartes, 1990). Put another way, test results for all students who are homeschooling lawfully show that they either equal or surpass those of students attending public schools. Some of those who assess the limits (Lubienski, Puckett, & Brewer, 2013) either focus too much on what the research cannot reveal or neglect to incorporate all of the data and research on homeschooling that has been provided in this article and elsewhere (Ray, 2017).

Although homeschooling has been linked to positive student and society outcomes, educators do not support it. The effect of education on academic performance: Evidence from students in both formal and home schools. There is currently no research indicating that students receiving home education receive lower average accomplishment test scores than those attending public schools. Furthermore, the three primary hypotheses regarding the academic success of home-educated pupils are supported by the body of research as well as data supplied by the state: (1); the national average for public schools is regularly far below the scores of homeschoolers. In the majority of research, their scores fall between the 65th and 80th percentiles. (2): The majority of the researches' demographic and other factors account for very little of the variation in the accomplishment scores of homeschoolers. (3); statistically significant disparities in success are regularly explained by the formal educational attainment of the parents, although.

The results of the literature review study showed that pupils who attend home schools get noticeably better results than their peers who attend traditional schools. On the achievement test, homeschoolers' mean score is greater than that of pupils attending traditional schools. According to a number of studies, children who are homeschooled have greater opportunity to improve their reading, creative and independent thinking, self-learning, and self-reliance skills. There is limited research indicating that homeschooling pupils perform less well on tests. This result is corroborated by the survey (Ray, 2017) on conventional schooling and homeschooling of kindergarten students, the study regarding knowledge of letter and name writing were found to be significantly higher in the traditional school students (Baig,2018).

Numerous academics have clarified on multiple occasions that the majority of research conducted thus far on the effectiveness (or failure) of homeschooling in maturity, social, emotional, and psychological development, and academic accomplishments have specific limits (Murphy, 2012). There doesn't seem to be a typical American family profile among homeschooling families and their students. One explanation for this is that, given the limitations of most studies, it is frequently impossible to determine whether sample sizes accurately reflect the population of home-educated pupils. A second significant drawback of the studies is the substance of the standardized achievement assessments that were used. Rudner (1999) correctly pointed out that while home schools do not always adhere to the same scope, sequence, or emphasis as traditional public and private schools, they do teach the fundamental subjects of reading, arithmetic, science, and social studies. Many home schools prioritize moral and religious principles.

That is to say, because their parents may not be following the institutional of school curriculum that would help their children pass on the tests, home school pupils may be at a disadvantage when taking these exams. Another explanation is that, in comparison to the goals of

state institutional education systems, the affective metrics employed with homeschooled children are not as valid as they should be in relation to the educational goals that homeschooling parents have. Therefore, it's probable that homeschooled students have an advantage when it comes to being measured using tools designed to capture the knowledge, beliefs, abilities, and behaviors that students in state schools are expected to acquire, internalize, and display (Martin-Chang, Gould, & Meuse, 2011). They will eventually provide additional information about how home schooling affects children's social, emotional, and psychological growth in addition to their academic performance.

There are certain exceptions to the analysis of the review's data, which point to homeschooling children' superior performance over public school students. According to the research conducted by Moreau (2012), parents who remove their children from traditional schools due to religious beliefs, better academic opportunities, or disbelief in the system are not likely to find success in the homeschooling system. (Rudner, 1999) argue that there are drawbacks to homeschooling. While home schools do teach the essential subjects of science, math, reading, and social studies, they fall short in terms of scope, sequencing, and emphasis.

Kindergarten students in both traditional and home schools reported that they knew much more about writing letters and names than the home school students. According to Ray (2017), the performance of traditional schooling students was found to be marginally higher than that of home educated students. This difference in performance may have resulted from the use of different teaching and learning resources by the homeschooling and traditional schooling students, as well as different forms of interaction during the teaching-learning process. Numerous academics have observed that the majority of parents who homeschool their children have different goals and aspirations for them than do parents who pick institutional public and private schools (Morrison, 2015).

Conclusion and Recommendation

Homeschooling is the deliberate choice made by parents to educate their children at home rather than in a formal school setting. In the absence of a set curriculum or pedagogy, parents and students adapt to a flexible syllabus according to their own interests. This differs from online or e-learning programs offered during the COVID-19 pandemic. Despite evidence linking homeschooling to positive learner and societal outcomes, it remains under recognized by educators and policymakers. Scholarly discourse reveals ongoing debate regarding the interpretation and implications of empirical findings. Compared to institutional education, homeschooling presents several favorable dimensions; however, rigorous inquiry is necessary. Future research should explore academic performance, practical life skills, and adult outcomes such as lifelong learning, welfare dependency, and self-efficacy through robust matched-pair or quasi-experimental designs. Comparative studies must account for the nature and authenticity of the homeschooling experience to ensure validity. These inquiries will critically inform educational policy and deepen understanding of homeschooling’s long-term impacts.

Although parents provide the majority of the educational guidance for homeschoolers, families can also employ tutors and specialists to instruct their children. This can be enrolling their child in dance classes or helping them pick up a foreign language. In other words, under this structure, learning takes place outside of the home with parental assistance. The number of homeschoolers in Nepal is hard to quantify because there isn't a single governing organization in place. On the other hand, the focus of the teaching approach is on informal learning. Individual parent decisions will determine this. The curriculum that parents follow and the online courses their children enroll in will determine whether or not they are required to pay a set cost.

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Integrated Marketing in the Digital Age: Maximizing Communication Tools for Management Success

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Abstract

This study investigates the management of marketing communication in the digital era, emphasizing the transformative role of Information and Communication Technology (ICT). Rapid technological advancements and shifting consumer behaviors have expanded communication channels, creating opportunities and challenges for businesses to maintain consistent and effective brand messaging. Using a qualitative research approach, data were collected from secondary sources, including scholarly articles, books, and industry reports, and analyzed inductively to explore current practices and trends. The findings highlight that effective management of marketing communication requires strategic alignment of messages, integration of digital platforms, and utilization of tools such as social media, open innovation, and targeted marketing to enhance engagement and brand loyalty. Results also show that businesses leveraging ICT-driven strategies—such as influencer collaboration, real-time customer interaction, and word-of-mouth amplification—achieve higher communication efficiency and stronger customer relationships. This study contributes by providing a comprehensive synthesis of management strategies for marketing communication in the digital age and offers actionable insights for practitioners, scholars, and educators.

Keywords: *Marketing communication, ICT, social media, digital strategy, management*

Introduction

In the dynamic and ever-changing realm of business, the role of effective communication cannot be overstated, particularly within the context of marketing. As businesses strive to connect with their target audiences and build lasting relationships, the management of marketing communication becomes a critical factor in achieving success. This study delves into the multifaceted domain of "Management in Marketing Communication," exploring its evolution, challenges, and the transformative influence of Information and Communication Technology (ICT). To embark on this exploration, it is essential to first establish the market need for such a study.

The landscape of marketing communication has witnessed significant transformations over the years, driven by advancements in technology, shifts in consumer behavior, and the ever-expanding array of communication channels (Schultz, Patti, & Kitchen, 2013). In light of these changes, there is a compelling market need for a comprehensive understanding of how management principles intersect with marketing communication strategies. This study aims to address this need on multiple fronts.

It seeks to push the boundaries of knowledge in the field, unraveling the complexities that arise when managing communication in the context of marketing. The rapid evolution of technology and the diversification of communication channels present both opportunities and challenges, necessitating a deeper understanding of effective management practices. The study

aspires to serve practical purposes by synthesizing existing knowledge into actionable insights for businesses. In an era where staying ahead of the competition requires strategic communication, this study aims to equip practitioners with valuable perspectives and methodologies to enhance their marketing communication efforts. Recognizing the importance of education in shaping future business leaders, this study endeavors to contribute to the teaching process. By consolidating and presenting insights into the management of marketing communication, educators can impart relevant and up-to-date knowledge to students, preparing them for the complexities of the contemporary business landscape.

To achieve the outlined objectives, it is imperative to define the research problem that will guide the exploration of this study. The research problem encapsulates the challenges, gaps, and intricacies within the management of marketing communication that warrant closer examination. One of the primary challenges lies in navigating the evolving landscape of communication technologies. With the advent of ICT, traditional communication channels have transformed, and new avenues have emerged (De Pelsmacker, Van Tilburg, & Holthof, 2003). Understanding how businesses can effectively harness these technologies to manage their marketing communication is a pressing concern.

Moreover, the diverse and dynamic nature of the target audience further complicates the management of marketing communication. Consumer preferences, behaviors, and expectations continually evolve, posing a constant challenge for marketers to tailor their messages appropriately (Katz, Blumler, & Gurevitch, 1973). The integration of various communication channels, from social media to traditional advertising, adds layers of complexity to the management process. Coordinating these diverse channels cohesively to convey a unified brand message requires strategic acumen and adaptability.

In light of these challenges, the research questions that guide this study are framed to unravel the complexities of managing marketing communication in the contemporary business environment. The subsequent sections will delve into these questions, seeking to provide nuanced and actionable insights. As we embark on this exploration, it is crucial to set the study in the context of its subsequent structure. The following sections will unfold in a logical sequence, beginning with an in-depth examination of the evolution of marketing communication. This historical perspective will pave the way for understanding the current landscape and the factors that have shaped it.

Subsequently, the study delved into the role of Information and Communication Technology in transforming communication channels and strategies. This section explored how businesses could leverage technology to enhance the effectiveness of their marketing communication efforts. The study turned its attention to the challenges inherent in managing marketing communication, addressing the intricacies of audience dynamics, channel integration, and the need for adaptability. The conclusion drew together the key findings, providing a comprehensive overview of effective management practices in marketing communication and offering valuable insights for practitioners, scholars, and educators alike. Through this structured exploration, the study aimed to contribute to the ongoing discourse on the intersection of management and marketing communication, offering a nuanced understanding of this critical aspect of contemporary business strategy.

Literature Review

Effectively managing marketing communication encounters inherent challenges, and theoretical frameworks provide insights into these intricacies. The information processing model emphasizes the constrained ability of individuals to process information. In the realm of marketing communication, this model underscores the significance of creating brief and compelling messages to overcome cognitive limitations and capture the audience's attention (Bettman, 1979).

The applications of the uses and gratifications theory provide valuable insights into the reasons behind individuals' media consumption. When applied to marketing communication, this theory assists in comprehending consumer motivations, enabling the customization of messages to satisfy particular needs or desires (Katz, Blumler, & Gurevitch, 1973). The significance of personalization and relevance becomes evident as essential elements in effectively managing communication.

The dual processing theory differentiates between central and peripheral routes to persuasion (Petty & Cacioppo, 1986). This theoretical framework is essential in creating compelling marketing messages that resonate with both rational decision-making processes and emotional responses. Social media platforms, a significant component of ICT, have emerged as powerful tools for marketing communication. The interactive nature of platforms like Facebook, Twitter, and Instagram facilitates direct engagement with consumers, fostering word-of-mouth marketing and community building (Mangold & Faulds, 2009). Organizations can now harness user-generated content and peer recommendations to enhance their brand communication strategies.

Moreover, the immediacy and global reach of digital news platforms, made possible by ICT, enable marketers to craft messages tailored to specific demographics, enhancing the precision and effectiveness of targeted marketing (De Pelsmacker et al., 2003). The dynamic nature of online communication channels requires marketers to adopt agile management practices that accommodate the rapid pace of change.

Challenges in Managing Marketing Communication

While Information and Communication Technology (ICT) brings forth numerous benefits, it also presents challenges in effectively handling marketing communication. The dynamic nature of the digital environment requires continuous adaptation and a heightened understanding of consumer sentiments. The research conducted by Kim and Ko (2012) underscores the importance for organizations to navigate the delicate equilibrium between personalization and privacy concerns, particularly in the era of targeted advertising.

Another challenge arises with the incorporation of various communication channels. Effectively coordinating messages across platforms, spanning from traditional advertising to social media, necessitates a strategic approach to uphold consistency and coherence in brand communication. In the swiftly evolving realm of marketing communication, the significance of adept management has escalated. This literature review consolidates current knowledge and research related to the administration of marketing communication, emphasizing the exploration of challenges, opportunities, and strategies that mold this dynamic field.

Evolution of Marketing Communication

The roots of marketing communication can be traced back to traditional advertising methods, but the landscape has undergone a seismic shift with the advent of new technologies. As highlighted by Schultz, Patti, and Kitchen (2013), the shift from a one-way communication model to a more interactive and customer-centric approach has transformed the tactics utilized by marketers. The emergence of the internet, social media, and mobile technologies has not only broadened the spectrum of communication channels but has also given consumers increased authority over the content they choose to interact with.

Additionally, Smith and Taylor (2004) stress the significance of grasping the historical backdrop of marketing communication. They highlight how changes in societal attitudes, cultural norms, and technological progress have shaped the strategies employed by businesses. This historical viewpoint is crucial for understanding the present challenges and opportunities in efficiently overseeing marketing communication.

Information and Communication Technology (ICT) in Marketing Communication

The incorporation of Information and Communication Technology (ICT) has brought about a significant transformation in marketing communication. De Pelsmacker, Van Tilburg,

and Holthof's (2003) research investigates the influence of ICT on advertising, emphasizing the role of digital platforms in facilitating personalized and targeted communication. The transition from conventional mediums like print and television to digital channels has fundamentally altered the dynamics of how businesses engage with their audiences.

Furthermore, Mangold and Faulds (2009) explore the significance of social media in the wider realm of information and communication technology (ICT). Social media platforms have become vibrant avenues for marketing communication, offering possibilities for immediate interaction, user-created content, and viral initiatives. The interlinked structure of social networks has not just eased communication but has also reshaped the connections between brands and consumers.

Opportunities and Strategies for Effective Management

In tackling challenges, researchers have examined different possibilities and tactics for proficient management in marketing communication. Keller and Fay (2012) underscore the significance of word-of-mouth marketing in the digital era. Leveraging the potential of user-generated content and peer recommendations on social media platforms has the potential to magnify the reach and influence of marketing messages.

Kitchen, Brignell, Li, and Spickett-Jones (2004) examine Integrated Marketing Communication (IMC), emphasizing its capacity to establish a cohesive and uniform brand encounter across diverse channels. The incorporation of different communication channels, spanning advertising to public relations, is regarded as a strategic method to amplify the overall efficacy of marketing communication.

Methodology

This study adopted a qualitative research methodology to examine the management of marketing communication in the digital age, emphasizing the integration of Information and Communication Technology (ICT) and multi-channel strategies. Data were collected from both primary and secondary sources to ensure a comprehensive understanding of the topic. Primary sources consisted of theoretical reviews and conceptual frameworks that helped establish the foundation of marketing communication management, while secondary sources included peer-reviewed journal articles, books, industry reports, research abstracts, newspapers, and credible online publications that provided insights into current trends and real-world practices. The research employed an inductive reasoning approach, allowing recurring themes and patterns to emerge organically without the constraints of predefined hypotheses. Descriptive and analytical methods were used to interpret the collected data, focusing on how organizations utilize various communication tools—such as social media, open innovation, word-of-mouth marketing, and targeted campaigns—to influence customer behavior, enhance brand engagement, and maintain consistency across multiple channels. This methodological approach not only facilitated the identification of key managerial strategies but also provided actionable insights for optimizing communication processes, leveraging digital technologies, and improving customer relations in a dynamic and competitive marketing environment.

Results and Discussion

Low (2000) found through research that, "the adoption of Integrated Marketing Communication (IMC) could significantly correlate with enhanced marketing outcomes such as increased sales, market share, and profits within an organization. To gauge the efficacy of marketing communications, scholars have typically utilized indicators such as awareness, recall, and recognition" (Beerli & Santana, 1999, p. 11).

According to Oliveira, Ribeiro, and Oliveira (2024), in the article titled, A Benchmarking on the Strategies of Marketing and Communication of the British Royal Family, they also said that, *"Because of Social Networks, it is essential to be closer to potential clients, consumers, and/or people. Creating a more human and everyday relationship, showing everyday life, routines, and curiosity. To maintain a good relationship and connection with your audience."*

In Marketing Communication Management, we meticulously coordinate channels, messages, and resources to meet organizational goals. This involves aligning strategies strategically, optimizing resources, and integrating digital platforms to create impactful messaging. Strategic alignment guides decisions to ensure communication strategies match broader business objectives. Resource optimization means smartly allocating resources to balance creativity and cost-effectiveness. Integrating digital platforms involves navigating the digital landscape for effective outreach. Good management ensures consistent branding across various channels. The management framework serves as a link between managerial decisions and communication strategies, ensuring a unified brand voice and positioning. It emphasizes data-driven decision-making, allowing real-time strategy refinement, market adaptation, and enhanced marketing communication effectiveness.

Understanding the target audience is crucial for effective marketing communication. This involves understanding the demographics, psychographics, and behaviors of consumers. This knowledge helps tailor messages that resonate with the audience on a personal level. Successful marketing communication relies on demographic research, market segmentation, and consumer feedback. Storytelling is another critical element, crafting a narrative that evokes emotion and establishes a connection with the audience. This powerful tool enhances brand recall and memorable experiences. In contemporary markets, the facets comprising Management in Marketing Communication include the following components.: (1) Newspaper, (2) Social networks, (3) Open innovation, (4) Word of mouth, (5) Targeted marketing, (6) Communication, (7) Modern tribes, and (8) Social media

Newspaper

According to Shill and Dey (2023),

> *A newspaper holds significant importance in the lives of literate individuals, serving as a vital reading material. In today's era, the absence of a newspaper is inconceivable in one's daily routine. The evolution of communication processes has necessitated the implementation of effective marketing strategies for newspa-pers. Such strategies are crucial not only for retaining existing readers but also for attracting new ones. As a product, newspapers fulfill the essential role of providing information vital for socialand familial decision-making.*

A newspaper, whether in print or online, serves as a comprehensive platform for delivering current news, articles, features, and advertisements to a diverse audience. It holds a pivotal role in Management in Marketing Communication due to its capacity to engage a broad readership and convey brand messages effectively across various topics such as politics, business, entertainment, and sports. Newspapers boast a wide and credible readership, attracting individuals from different demographics who habitually seek news updates and relevant information. This established readership becomes a valuable opportunity for Management in Marketing Communication, offering a traditional yet impactful channel to showcase products, services, or brand messages to a diverse audience with varying interests.

Moreover, newspapers serve as a concrete and authoritative medium, whether in physical or digital format. This perceived credibility heightens the reliability of advertisements and messages, empowering management strategies to establish a strong brand presence and positively impact consumer perceptions. The significance of newspapers in Marketing Communication Management is emphasized by their extensive readership, credibility, targeted advertising possibilities, flexible coverage, and the enduring nature of the medium. By strategically integrating newspapers into marketing communication strategies, businesses can capitalize on the distinctive advantages offered by this traditional yet enduring form of media. Furthermore, newspapers offer a focused advertising platform with specific sections catering to diverse interests and demographics. Advertisers can strategically position messages in

relevant sections, facilitating precise targeting and ensuring that marketing communication efforts effectively reach the audience most likely to be interested in the products or services.

Additionally, newspapers provide a versatile combination of local, national, and international coverage, allowing Management in Marketing Communication to customize messages based on the geographic scope of the target audience. Local businesses can efficiently connect with their communities through local newspaper advertising, while national or global brands can employ newspapers for a broader outreach.

Consequently, the worldwide reach of digital news platforms, facilitated by ICT tools, allows marketers to spread messages personalized to specific audiences, improving the accuracy and efficacy of targeted marketing (De Pelsmacker et al., 2003). As internet ways of communicating are changing, marketing must implement flexible management strategies that keep up with the quick speed of transition.

Social Networks

Acar and Polonsky (2007) conclude *that "Online social networking platforms have experienced widespread popularity among the general population, yet empirical research at the individual level in this field remains limited. This study examines how personality traits such as extraversion, self-esteem, opinion-seeking, and opinion leadership influence brand communication and online social behaviors. The findings indicate that gender and extraversion are predictors of online social network size and usage duration. Furthermore, individuals identified as opinion seekers tend to spend more time online and have larger networks compared to opinion leaders. Conversely, opinion leaders are more inclined to communicate their brand usage experiences online."*

A social network is a web of relationships and interactions among individuals, organizations, or entities connected through various platforms and channels, primarily on the Internet. Social networks can take various forms, including online communities, social media platforms, and professional networking sites. The importance of social networks for Management in Marketing Communication is substantial, as they provide a dynamic and influential environment for brand promotion, customer engagement, and communication strategies.

Social networks are also excellent sources of up-to-date information and analysis. Trends, sentiment analysis using social listening tools, and user-generated content analysis can all be beneficial to marketing communication management strategies. Decision-making is aided by actively engaging in discussions, quickly responding to consumer inquiries, and obtaining insights into the tastes and habits of target audiences. This enables marketers to modify their plans as necessary. On social media, influencer marketing has grown in popularity. The process of strategic management is locating and working with brand-aligned influencers, then leveraging their popularity and authority to spread marketing messages and build genuine relationships with their followers.

Open Innovation

According to Enkel, Dingler, and Mangels (2017), their results indicate that *"companies can enhance the visibility of open innovation, acquire partners, and manage relationships through structured communication about innovation. Additionally, the findings demonstrate that various factors such as the timing of communication throughout the innovation process, the choice of communication channels, and the specific target audience contribute to the unique approach to open innovation. However, the actual content of communication tends to be similar across companies, regardless of whether they have a more cautious or expansive approach to open innovation."*

Open innovation is a collaborative approach to innovation that involves businesses and organizations seeking external ideas, technologies, and expertise to enhance their internal processes and products. It is a departure from the traditional closed innovation model, where

companies rely solely on their internal resources for innovation. Open innovation emphasizes the importance of external collaboration, partnerships, and the exchange of ideas with a diverse range of stakeholders, including customers, suppliers, and other organizations.

The importance of open innovation for Management Marketing Communication is significant, particularly in the context of adapting to rapidly changing market dynamics, fostering creativity, and staying ahead of the competition. Open innovation offers several key benefits for marketing communication management:

Diverse perspectives. open innovation allows businesses to tap into a wide range of perspectives, ideas, and insights from external sources. This diversity can be valuable in crafting more creative and innovative marketing communication strategies that resonate with a broader audience.

Customer engagement. involving customers in the innovation process through open innovation can lead to a better understanding of their needs, preferences, and expectations. This customer-centric approach is crucial for developing marketing messages that are not only innovative but also directly address the desires of the target audience.

Agility and adaptability. Open innovation fosters a more agile and adaptable approach to marketing communication. By being open to external inputs, businesses can quickly respond to emerging trends, consumer feedback, and changes in the competitive landscape.

Cost efficiency. Collaborating with external partners can be a cost-effective way to access new ideas and technologies without the need for substantial internal investments. This cost efficiency is particularly beneficial for businesses with limited resources.

Brand image and reputation. Engaging in open innovation initiatives and showcasing collaborative efforts in marketing communication can enhance a brand's image. It portrays the company as forward-thinking, inclusive, and willing to embrace external expertise.

Market differentiation. Incorporating external ideas and perspectives into marketing communication strategies can set a business apart from competitors. It allows for the creation of unique and distinctive campaigns that capture the attention of the target audience.

Open innovation is crucial for Management in Marketing Communication as it enables businesses to harness external creativity, engage customers effectively, stay agile in a dynamic market, and enhance brand image through collaborative efforts. Embracing open innovation principles can lead to more innovative, adaptive, and customer-centric marketing communication strategies.

The role of open innovation in management within marketing communication is transformative, fostering collaboration and idea exchange beyond the traditional organizational boundaries. Open innovation, a concept that encourages the inflow and outflow of ideas between an organization and its external environment, plays a crucial role in enhancing the effectiveness of marketing communication strategies. In the realm of management, it encourages a more inclusive approach to idea generation, drawing insights from a diverse range of sources such as customers, partners, and even competitors.

The dynamic nature of the marketing environment requires quick adaptation, and an open innovation approach empowers management to access external insights swiftly. This adaptability is crucial for optimizing communication strategies in real time, aligning them with emerging consumer preferences and technological advancements. Open innovation in management for marketing communication fosters co-creation. Collaborating with external stakeholders and consumers in the innovation process not only enhances the relevance of marketing messages but also builds a sense of community and brand loyalty. It transforms marketing from a one-way communication model to a more interactive and engaging experience, strengthening the relationship between the brand and its audience.

Word of Mouth

Meiners, Schwarting, and Seeberger (2010) say in their article, The Renaissance of Word-of-Mouth Marketing: A 'New' Standard in Twenty-First Century Marketing Management, *"Contemporary communication strategies now indispensably include word-of-mouth marketing, recognized as a crucial element for a business's success. When seamlessly integrated into a company's overall communication strategy, word-of-mouth marketing can effectively amplify its positive impact, fostering a lasting favorable reputation for companies and nurturing strong emotional bonds with customers. Moreover, it facilitates the systematic dissemination of brand messages."*

Word of mouth (WOM) is a powerful and organic form of communication where individuals share their experiences, recommendations, and opinions about a product, service, or brand with others. It operates on a personal and interpersonal level, often spreading through conversations, social interactions, and online platforms. The importance of word of mouth for Management in Marketing Communication is profound, shaping brand perceptions, influencing consumer decisions, and serving as a dynamic element in the overall marketing strategy.

The authenticity inherent in word of mouth is a key aspect. Positive WOM is a genuine endorsement, reflecting satisfied customers sharing their positive experiences. In contrast, negative WOM can present challenges, underscoring the need for effective management strategies to address concerns promptly and mitigate potential reputational risks.

Word of mouth holds significance in the management of marketing communication for several reasons. Firstly, it builds trust and credibility. Consumers often trust the recommendations of their peers or acquaintances more than traditional advertising. Management strategies should focus on fostering positive experiences that naturally prompt individuals to become brand advocates, influencing their networks through positive word of mouth. Secondly, word of mouth contributes to brand awareness and customer acquisition. As individuals share their positive experiences, they inadvertently act as brand ambassadors, expanding the reach of the brand to new audiences. Management in Marketing Communication needs to leverage this organic spread, strategically encouraging and facilitating positive conversations.

In the digital age, the impact of word of mouth is amplified through social media. Management strategies must include online reputation management, active engagement with customers on social platforms, and leveraging user-generated content. The real-time nature of online communication emphasizes the importance of immediate management responses to both positive and negative sentiments.

Targeted Marketing

According to Meyers (2010), *"By emphasizing this connection, marketers can effectively achieve their desired objectives such as purchase intent and attitudes toward the advertisement, brand, and product. One rationale for the effectiveness of this targeting lies in the shared cultural understanding conveyed in marketing communications (Aaker, Brumbaugh, & Grier, 2000; Brumbaugh, 1997). Put simply, the effectiveness of targeted marketing stems from consumers perceiving a similarity between some element of a company's communication efforts and themselves (Whittler, 1989)."*

Targeted marketing, also known as niche marketing, is a strategy where businesses tailor their marketing efforts to a specific and well-defined segment of the market. Instead of appealing to a broad audience, targeted marketing aims to reach individuals who are more likely to be interested in a particular product or service. This approach involves understanding the unique characteristics, preferences, and behaviors of the target audience and crafting marketing messages and campaigns that resonate specifically with that group.

The importance of targeted marketing for Management in Marketing Communication cannot be overstated, as it offers several key advantages:

Efficiency and cost-effectiveness. Targeted marketing allows businesses to allocate their resources more efficiently by focusing on the most relevant audience. This results in more cost-effective campaigns as marketing efforts are concentrated on those who are more likely to convert into customers.

Increased relevance. B*y* tailoring messages to a specific audience, targeted marketing ensures that the content is relevant and resonates with the interests and needs of that particular group. This relevance enhances the effectiveness of communication, making it more likely to capture the attention and interest of the target audience.

***Personalization*.** Targeted marketing enables businesses to personalize their messages, offers, and content. Personalization creates a more meaningful connection with consumers, fostering a sense of understanding and meeting their individual needs.

***Better understanding of customer behavior*.** Through targeted marketing, businesses gain a deeper understanding of customer behavior, preferences, and buying patterns. This data-driven approach allows for more informed decision-making in marketing strategies.

Improved return on investment (ROI). With a focus on specific segments, businesses can measure the success of their campaigns more accurately. This leads to improved ROI as marketing efforts are aligned with the preferences and behaviors of the target audience, resulting in higher conversion rates.

Brand Loyalty and Trust. When consumers perceive that a brand understands their needs and preferences, it fosters loyalty and trust. Targeted marketing contributes to building stronger relationships with customers, leading to repeat business and positive word of mouth.

Targeted marketing is crucial for Management in Marketing Communication as it enhances efficiency, increases relevance, allows for personalization, provides insights into customer behavior, improves ROI, and builds brand loyalty. Strategic management involves identifying and understanding the target audience and tailoring marketing communication efforts to effectively reach and engage with that specific segment.

Communication

Chunikhina et al. (2023) also conclude in their article that, *"The communication strategy of the Internet marketing of a commercial enterprise involves a set of organizational and managerial decisions aimed at improving the advertising campaign, communication with customers, and improving the brand positioning of the enterprise. The main aspect of the development of communication strategies for Internet marketing of a trade enterprise is the strengthening of the development of digital technologies and its participation in them, as stated in the purpose of the study. In the context of the modern development of digital technologies and specialized infrastructure, the use of digital marketing tools is a key factor in the successful operation of an enterprise."*

Communication is the process of exchanging information, ideas, thoughts, or feelings between individuals or groups. It involves the transmission of a message from a sender to a receiver through a chosen channel, such as spoken or written words, visuals, or non-verbal cues. In the context of Management in Marketing Communication, effective communication is fundamental to conveying brand messages, building relationships with consumers, and achieving marketing objectives.

The importance of communication for Management in Marketing Communication is multifaceted:

Message clarity and consistency. Communication ensures that marketing messages are clear, coherent, and consistent across various channels. A well-articulated message prevents misunderstandings and reinforces brand identity.

Understanding the target audience. Effective communication involves understanding the demographics, preferences, and behaviors of the target audience. This knowledge is crucial for tailoring messages that resonate with the intended recipients, increasing the likelihood of engagement.

Building brand awareness. Communication is instrumental in building brand awareness. Consistent and strategic communication efforts contribute to creating a strong brand presence in the minds of consumers.

Creating a connection. Communication fosters a connection between the brand and its audience. Engaging and relatable messages can evoke emotions, establish a rapport, and contribute to a positive perception of the brand.

Facilitating consumer engagement. Communication is a two-way process that encourages consumer engagement. Through various channels like social media, email, or customer service, brands can interact with their audience, gather feedback, and address inquiries.

Launching and promoting products. Communication plays a crucial role in launching and promoting products. Effective marketing communication strategies generate excitement, highlight product features, and persuade consumers to make informed purchasing decisions.

Adapting to market changes. In a dynamic market, communication is vital for conveying changes, updates, or innovations. Whether through advertising, public relations, or social media, effective communication helps the brand adapt swiftly to evolving market conditions.

Crisis management. Communication is crucial during times of crisis. Transparent and timely communication can help mitigate reputational damage, address concerns, and maintain consumer trust.

Measuring effectiveness. Communication allows for the measurement of marketing communication effectiveness. By analyzing metrics such as reach, engagement, and conversion rates, management can assess the impact of strategies and make data-driven decisions for optimization.

Communication is the backbone of Management in Marketing Communication. Its importance lies in ensuring message clarity, understanding the audience, building brand awareness, creating connections, facilitating engagement, launching products, adapting to market changes, crisis management, and measuring effectiveness. Strategic management involves crafting and delivering messages that align with organizational goals and resonate with the target audience.

Modern Tribes

According to Cova and Cova (2002), *"The community of in-line skaters serves as an example to showcase the marketer's challenging role in recognizing, endorsing, and assimilating new tribal groups in contemporary society. Success hinges on a readiness to move away from rigid marketing strategies and embrace a more flexible approach that prioritizes connection in the development of marketing strategies. This necessitates blending psychological and sociological perspectives with an ethno-ecological mindset in both market research and strategy formulation. By considering consumers' collective experiences within their tribal communities, businesses can effectively incorporate them into their business models."*

Modern tribes refer to groups of individuals who share common interests, values, or lifestyles in contemporary society. These tribes are not defined by geographical boundaries but rather by shared affinities, often facilitated by digital platforms, social media, and cultural trends. Understanding and engaging with modern tribes is of paramount importance for Management in Marketing Communication due to several key reasons.

Targeted marketing. Modern tribes provide a valuable segmentation strategy for targeted marketing. By identifying and understanding the characteristics of specific tribes, marketers can tailor their communication strategies to resonate with the unique preferences and values of these groups. This targeted approach enhances the relevance of marketing messages, increasing the likelihood of engagement and brand loyalty.

Cultural relevance. Modern tribes are often formed around shared cultural elements, such as lifestyle choices, hobbies, or subcultures. Acknowledging and incorporating these cultural nuances in marketing communication is essential for brands seeking to be culturally relevant. Management strategies need to be culturally sensitive and inclusive, ensuring that the brand connects authentically with diverse tribes.

Brand advocacy. Engaging with modern tribes can lead to brand advocacy. When a brand aligns with the values and interests of a tribe, its members are more likely to become enthusiastic advocates, promoting the brand within their social circles. This word-of-mouth promotion within tribes can significantly impact a brand's reputation and reach.

Community building. Modern tribes often function as communities where members interact, share experiences, and support one another. Brands can play a role in fostering these communities through effective communication. Management in Marketing Communication involves creating content and initiatives that contribute positively to the tribe's sense of community.

Digital engagement. Many modern tribes thrive in the digital space, utilizing social media platforms, forums, and online communities. Management strategies need to leverage these digital channels to engage with tribes, fostering conversations and amplifying marketing messages where these tribes are most active.

Innovation and trends. Modern tribes are often early adopters of trends and innovations. Understanding the preferences and behaviors of these tribes provides valuable insights into emerging trends, allowing brands to stay ahead of the curve. Management in Marketing Communication involves monitoring and adapting to the evolving dynamics of modern tribes to remain relevant.

The importance of modern tribes for Management in Marketing Communication lies in their role as a segmentation strategy for targeted marketing, cultural relevance, brand advocacy, community building, digital engagement, and insights into innovation and trends. Strategic management involves recognizing and respecting the diversity of modern tribes, crafting communication strategies that resonate with their values, and fostering authentic connections to build lasting relationships with these communities.

Social media

According to Mangold and Faulds (2009), *"The rise of social media platforms on the Internet has revolutionized the way individuals can connect with large numbers of others to discuss products and the businesses offering them. Consequently, the influence of consumer-to-consumer interactions has been significantly amplified within the market. The article suggests that social media represents a blend of promotional techniques as it allows companies to engage with their clientele conventionally, while simultaneously facilitating direct peer-to-peer communication among customers. The substance, timing, and regularity of these social media-driven discussions among consumers lie beyond the direct management control of company executives."*

Social media refers to online platforms and applications that enable users to create, share, and interact with content in real time. These platforms facilitate the exchange of information, ideas, and multimedia content among individuals and communities. Social media includes a diverse range of platforms such as Facebook, Instagram, Twitter, LinkedIn, YouTube, and others. The importance of social media for Management in Marketing

Communication is profound, offering a dynamic and influential channel to connect with target audiences and achieve marketing objectives.

Wide reach and accessibility. Social media platforms have billions of active users worldwide, providing an unparalleled reach for marketing messages. Management in Marketing Communication can leverage these platforms to connect with diverse audiences, from global markets to niche communities.

Real-time interaction. Social media enables real-time communication and interaction between brands and their audience. This immediacy allows for timely responses to trends, customer inquiries, and feedback, contributing to a more dynamic and responsive communication strategy.

Content distribution. Social media serves as a powerful distribution channel for various types of content, including text, images, videos, and interactive elements. Management can strategically deploy content to engage, inform, and entertain the audience, contributing to brand visibility and awareness.

Targeted advertising. Social media platforms offer sophisticated targeting options, allowing marketers to reach specific demographics, interests, and behaviors. This targeted approach enhances the efficiency and effectiveness of marketing communication efforts.

Brand authenticity. Social media provides an avenue for brands to showcase their personality and values, fostering authenticity. Management strategies can use social media to humanize the brand, building trust and meaningful connections with the audience.

Influencer collaboration. Social media platforms are hubs for influencers---individuals with a significant following. Collaborating with influencers aligning with the brand's values allows for amplified reach and credibility, enhancing the impact of marketing communication.

Data analytics and insights. Social media platforms offer robust analytics tools that provide valuable insights into audience behavior, engagement metrics, and content performance. Management can use these data-driven insights to refine and optimize communication strategies.

Crisis management. In times of crisis or controversy, social media is often the first platform where information spreads. Effective management involves utilizing social media for transparent communication, addressing concerns, and managing brand reputation in real time.

Social media portals like Facebook, Instagram, LinkedIn, and Twitter offer a wide and connected audience, and they act as direct avenues for firms to communicate with their target market. Understanding the dynamics of these networks, identifying user preferences and habits, and modifying communication tactics to appeal to particular social communities are all necessary for the effective management of marketing communication. These social media platforms encourage word of mouth and content to go viral. Through social sharing, interesting and shareable content can quickly reach a large audience. Using the network effect to magnify brand messaging, it is imperative in marketing communication management to produce content that inspires users to interact, share, and remark.

The literature on management in marketing communication provides a rich tapestry of insights into the evolution, challenges, and strategies that define this dynamic field. From the historical roots of marketing communication to the transformative impact of Information and Communication Technology, scholars have delved into the intricacies of effectively navigating this ever-changing landscape. As we progress through this study, it is with a nuanced understanding of the historical context, technological advancements, and strategic considerations that shape the management of marketing communication in the contemporary business environment. The literature reviewed underscores the dynamic nature of management in marketing communication, shaped by the evolution of communication technologies. Information and Communication Technology, particularly the rise of social media, has

transformed the way organizations interact with their audiences. While presenting unprecedented opportunities, this transformation introduces challenges that necessitate adaptive management practices.

Effective management in marketing communication requires a nuanced understanding of consumer behavior, strategic integration of diverse communication channels, and a commitment to leveraging the capabilities of Information and Communication Technology. The literature reviewed provides valuable insights for practitioners, scholars, and educators, offering a foundation for further exploration and refinement of management practices in the ever-evolving landscape of marketing communication.

Conclusion

Social media platforms, a key component of Information and Communication Technology, have become essential tools in marketing communication (Mangold & Faulds, 2009). The theoretical landscape of marketing communication management is diverse, incorporating historical perspectives, technological frameworks, and cognitive theories. This holistic framework helps practitioners and scholars navigate contemporary communication complexities, providing a foundation for further empirical research and enabling businesses to build lasting connections with their audiences.

This study explores the role of various communication channels in marketing management, including newspapers, social networks, open innovation, word of mouth, and social media. Newspapers have a significant impact due to their readership and credibility. Social networks use real-time communication, content virality, data insights, and influencer marketing for dynamic brand promotion. Open innovation fosters collaboration, customer engagement, and market differentiation. Word of mouth, praised for its authenticity, amplifies brand perceptions through social media. Effective management strategies are crucial for leveraging positive word of mouth. Effective communication is essential for understanding target audiences, building brand awareness, and fostering engagement. Modern tribes, shaped by shared interests, play a significant role in marketing, cultural relevance, and innovation. Recognizing and respecting their diversity is essential for crafting effective communication strategies.

Lastly, the study explores the significant role of social media in marketing communication management, highlighting its impact on real-time interaction, content distribution, targeted advertising, brand authenticity, influencer collaboration, data analytics, and crisis management. It provides a comprehensive overview of effective management practices in marketing communication, offering valuable insights for practitioners, scholars, and educators, contributing to the ongoing discourse on the intersection of management and marketing communication.

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Economic Role of Vegetable Farming in Tharu Women's Livelihoods in Chitwan, Nepal

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Abstract

This study investigates how Tharu women make a decision-making basis with regard to vegetable economy in Chitwan District, Nepal. It brings out the point that they are hard workers in agriculture, but they do not have significant access to the economy. Their ability to regulate their income, their economic condition in general, and the part they play in selling and raising vegetables are the aspects that the study examines. It utilizes quantitative and qualitative information. Surveying 267 Tharu women farmers and discussing the issue with the community leaders allowed for obtaining more in-depth information. Multilinear regression was one of the techniques that the data using basic statistics. As the findings indicate, even though the Tharu women contribute so much in farming activities such as weeding (85.4%) and harvesting (78%), they do not have a big say in the distribution of farming income. There are only 11.6 percent who own the land to cultivate, and only about 15 percent market the crops or manage financial affairs. Nevertheless, agriculture provides about NPR 195,400 to a family in a year on average. It can be analysed that having a larger piece of land (0.45) and whether someone is trained when it comes to farming (0.28) play an important role in increasing household income. In sum, the research shows that, despite the importance of farming to their lives, Tharu women do not enjoy the decisional power because of the structural factors. The substantial change is possible only in the case of agricultural work improved; women have to be able to sell their crops, have control over land, and make financial decisions.

Keywords: *community, economic, farming, livelihood*

Introduction

Global shift toward commercial farming, which is seen as a key way to improve food supply and reduce poverty, especially for small-scale farmers. This shift is especially crucial to countries like Nepal, where small farms and a growing population make traditional farming of staple crops increasingly difficult to sustain (CBS, 2021). In this evolving farming environment, a significant change is taking place called the "feminization of agriculture." This is mainly because many men are leaving farming to fit into other jobs, so women are now leading agricultural work, including growing vegetables for expanding cities (Khanal & Dhungana, 2022). This introduction reviews recent studies on this change, highlights areas needing more research, and explains how this paper will focus on supporting Tharu women through economic growth in the vegetable farming industry.

In Nepal, more women are now involved in managing farms and making important decisions, which is a big shift. However, this doesn't always mean they are more empowered (Maharjan et al., 2017). Many studies show that this change has two sides. On one hand, women have more opportunities to be independent. On the other hand, they often end up with more work and more responsibility, which some experts call the "feminization of agrarian distress" (Lamichhane et al., 2022). Women are usually in charge of both the farm and the home with not enough help or resources, and they carry out three types of work: productive, reproductive, and community-related. Recent research shows that even though women are doing more, their work in farming is often not recognized or paid, leading to a lot of hard, unpaid labour (Ghale & Gurung, 2020, as cited in Khanal & Dhungana, 2022).

The main problem preventing women farmers in Nepal from becoming economically stronger is the strong patriarchal system that creates unfair treatment based on gender. One big sign of this is the unequal ownership of land. Land is the most important thing for farming, but it is mostly owned by men because of traditions that pass it down through male family lines (K.C. et al., 2015). Without legal proof of ownership, women have a hard time getting help from the government, important farming supplies, and loans (FAO, 2019; LI-BIRD, 2021). Research shows that even when women are the ones running the farm, they are often not involved in important choices like what crops to grow, and they don’t get a fair share of the money from the crops they produce (Adhikari & Karki, 2020; Balayar & Mazur, 2021). This problem is made worse by the fact that women in farming usually get paid less than men for the same work (Khanal & Dhungana, 2022).

This lack of power is especially strong for women from marginalized indigenous groups, like the Tharu, who have a deep historical link to the farmlands in the Terai region (Guneratne, 2012). Although some reports show that Tharu women have been successful in starting commercial vegetable farming and becoming more independent, a closer look shows a more complicated story. While turning farming into a business might bring some economic rewards, it can also make existing differences worse. Tharu women who go into the market often face being treated unfairly and pushed to the side, and their work is usually not valued enough (Chaudhary et al., 2022). New research highlights the importance of looking at how different factors like gender, caste, ethnicity, and social class all play a role in shaping the experiences of women farmers (Nightingale, 2016; Subedi, 2021).

Although there is more research on how women are playing a bigger role in agriculture in Nepal, there's still not enough focus on the particular experiences of Tharu women who are growing vegetables for sale. Some studies have looked at general patterns (Tamang et al., 2014), but there are not many detailed studies that look closely at whether their involvement in this area

is really helping them gain more control over their money, assets, and decisions. It's not clear if the money they make from farming is giving them more independence. Existing research sometimes talks about successful stories (Shrestha, 2022) and other times highlights big challenges (Khanal, 2021), but there's not much focused attention on the specific outcomes for indigenous women in this changing farming environment.

This paper tries to fill a gap by looking closely at the economic situation of Tharu women who grow vegetables in the village of Jyamire, located in the Chitwan district of Nepal. The study looks at their work, the challenges they face, and the actual benefits they get from their farming. It raises an important question: Are these women, who are key to the vegetable farming business, becoming more economically independent because of this change in agriculture? By focusing on this issue, the paper helps us better understand how farming for sale, gender roles, and economic power are connected in an indigenous community in Nepal.

Methodology

Understanding how the Tharu women are increasingly emancipating economically by using commercial vegetable cultivation involved a mixed-method approach in this research that employed both figures and elaborative stories to give an in-depth idea of the issue. Field research was done in Jyamire village planned well in the Tarai region of Chitwan district since there was a considerable number of Tharu families growing vegetables to be sold. The village is a fine example of larger social, economic and environmental situations in the region: which is provided by the research. In the statistics part, we have taken an arrangement in which we have taken out every 5th woman out of a list of all 1,335 women who grew vegetables in the village. We began by selecting a random number then selected every 5th person, which made us powerful 267 participants. For the numbers we gathered data by interviewing direct and with regard to the stories we had in-depth talks and interviews with key people. The data was analysed with SPSS, and we considered such basic statistics as the frequency of occurrence, the averages, and the distribution of the numbers. To make comparisons between groups, we employed tests as well, and a special model was used to establish what factors influence yearly income the most. The stories had been analysed by placing the similar ideas into the groups in order to support and explain the numbers. The research uses a model that blends feminist economics with a model of sustainable living that allows us to think of empowerment in numerous forms beyond simply being able to make money but also being in control of resources, decision making and navigating in a complex environment the traditional systems of power.

Results and Discussion

The findings of our field research are provided in the subsequent section, and they paint a verbal but pictorial account of how those women lead their lives, what and how they work, and what the economic implications of their activities are from the respondents of the traditional and formal institutions, particularly the banks and markets.

Table 1:

Demographic data of the respondents (n=267)

Characteristic	Category	Frequency	Percent (%)
Age Group (Years)	20-30	58	21.7
	31-40	115	43.1
	41-50	76	28.5

	>50	18	6.7
Education Level	Illiterate	71	26.6
	Primary (1-5)	105	39.3
	Secondary (6-12)	82	30.7
	Above Secondary	9	3.4
Family Size	1-4 Members	98	36.7
	5-7 Members	141	52.8
	>7 Members	28	10.5

The short outline of the primary group under investigation could be given in the form of a table, the example of which is given in Table 1. The majority (71.6 of these women are in the age range of 31 to 50 years, which places them at the centre of their reproductive and producing years. The number of people being served per head, in terms of the average number of people that live in a household, is approximately five people and seven people, with great responsibility being shown daily. Nonetheless, education offers a large gap, which stands out in the same database. More than a quarter (26.6 percent) of respondents are illiterate, and another 2/3 of them have at most attained primary school. This emerges that formal education restricts them to the exposure in the present data, besides their keenness to have a wide scope of connections.

Table 2:

Profile of Land and Asset Ownership (N=267)

Characteristic	Category	Frequency	Percent (%)
Landholding for Vegetables (ha)	< 0.5	148	55.4
	0.5 - 1.0	89	33.3
	> 1.0	30	11.2
Land Tenure Status	Solely Owned by a Woman	31	11.6
	Jointly Owned (with husband)	45	16.9
	Owned by Husband/Family	191	71.5
Access to Agricultural Credit	Yes	55	20.6
	No	212	79.4

Empowerment is most hindered by access to assets (Table 2). These women are the primary farmers, though surprisingly, 71.5 percent of them cultivate the land that is owned either by their husbands or other male family members. The percentage of individuals with the title in their name is extremely low (11.6%). The fact that only one of these characters is brought to life is indicative of desperate helplessness, except that a massive majority of these women work in territories that technically and legally are not theirs. Consequently, nearly 80 percent of them answered that they do not receive formal credit due to a lack of any security that is demanded by the banks.

Table 3:
The Role of Women in Vegetable Agricultural Activity (N=267)

Activity Stage	Primary Responsibility of Women (%)
Production Phase	
Land Preparation (Manual)	35.2%
Planting / Sowing	65.9%
Weeding / Inter-culture	85.4%
Irrigation (Manual)	58.1%
Pest/Fertilizer Application	45.3%
Harvesting	78.3%
Post-Harvest & Marketing Phase	
Sorting and Grading	61.4%
Taking produce to market	15.7%
Negotiating price with traders	9.7%
Financial Management	
Deciding on which crops to grow	35.6%
Controlling income from sales	22.1%

Table 3 reveals the journey of a vegetable passing through stages of revenue, market, and it reveals when it is the turn of a woman to call the shots, and this is much more crucial when the power typically ends up in her hands. She is largely and importantly overpowering in the production part. She engages in heavy work on weeding (85.4 percent), gathering (78.3 percent), and sowing (65.9 percent). As the product goes to the market, her role deteriorates dramatically. The women are also involved in engaging the market, with only 15.7 percent taking the produce, but the percentage that is involved in the price negotiation is also less than 10 percent. When it comes to final income, women have a share of about 22.1 percent, which can be considered as having primary control of the money her labour has earned.

Table 4:
Annual Profile of Income and Expenditure caused by Vegetable Farming

Economic Indicator	Mean Value (NPR)	Standard Deviation
Gross Annual Income from Vegetables	195,400	65,200
Annual Cost of Production	68,500	15,400
Net Annual Income from Vegetables	126,900	51,800
Proportion of Veg. Income to Total HH Income	65%	12%

Primary Areas of Expenditure (Top 3)		
1. Household Food & Groceries	45% of net income	-
2. Children's Education	25% of net income	-
3. Health Care	15% of net income	-

This is with these deep-rooted sources of inequality; the economic input of the kind produced by their interactions cannot be ruled out. Table 4 indicates that the average gross income of their households averagely at NPR 195,400 annually because of vegetable farming, nearly two-thirds of their overall family income. This is not a theorized sum of money; it is the school fee of the child, the medicine of a sick parent, and food on the table. The matter of fact given by the information is that the income women earn is thus directly invested in the welfare and the future of their families.

Table 5:

Analysis of Multiple Regression Used to Predict Annual Gross Income

Variable	Unstandardized B	Std. Error	Standardized Beta (β)	t-value	p-value
(Constant)	85,430	12,350		6.92	<.001
Landholding Size (in ha)	78,500	9,880	.45	7.95	<.001
Access to Agri. Training (Yes=1)	45,210	14,120	.28	3.20	.002
Years of Farming Experience	2,150	950	.21	2.26	.025
Education Level (Years of schooling)	1,250	1,890	.05	0.66	.510 (ns)

R 2 = (.371). ns = not significant.

Why did some women end up earning more money than others women do? Our analysis shows a certain list of factors. Training had a great impact on the difference in income: on average, the income of women who received any agricultural training was NPR 248,300 per year, and the income of women who did not receive training was only NPR 179,600 ($t(265) = 4.88$, $p < .001$). The multiple linear regression model supports this and other important aspects (Table 5). It discloses that the size of land holding is the one variable that has the most significant impact on income. Experience is the other critical factor that contributes to both an increase in earnings as well as avenues of practical training opportunities that are availed after years. Such findings show that sound wealth and utilitarian abilities turn out to be the quickest path towards high income.

Table 6:

Limitations of Tharu women Farmers (N=267)

Rank	Problem	Percent of Respondents Citing as a Major Issue
1	Lack of access to affordable credit	79.4%
2	Price fluctuation / Unstable market prices	75.3%
3	Insufficient irrigation facilities	68.2%

4	High cost and limited availability of quality inputs (seeds, fertilizer)	61.8%
5	Pest and disease infestation	55.1%
6	Lack of cold storage / High post-harvest losses	48.7%
7	Lack of access to technical support	45.0%

Finally, the women also told how they are suppressed day by day. The problems are interdependent on one another, and the scenario has formed a vicious cycle, as Table 6 shows. Lack of credit also fails to enable them to invest in better irrigation or a better chance of quality seed. This makes their crops subject to bad irrigation and also the prices of their crops in the market unreliable, leading to the fact that a good harvest does not necessarily lead to sufficient payment.

Discussion

This research shows a big gap between the huge work that Jyamire Tharu women do in agriculture and the little money they get from it. It challenges the usual ideas about how development works. The main impression is that these women are the driving force behind the local vegetable economy, but they are not given control or the benefits. These propositions bring forth a lot of studies about how gender affects work and money in poor countries. Our findings back up Adhikari & Karki (2020), who found that the way men and women divide work leads to unfairness. Our study shows that women do most of the farming, while men handle selling and getting the money. The reason for this is that old social and cultural rules keep women away from public places like the market.

Our interviews support this. These rules stop women from moving around and being part of the marketplace. This idea is supported by other studies on how male power works in South Asia, showing that these rules not only split tasks but also power. The effect on women's lives is serious: being away from the market means they don't get important information, friends, or the ability to talk about fair prices. Farming then becomes a place where they are treated unfairly, and their work doesn't help them be equal in society or get a fair share of the benefits. A big part of this study is looking closely at how empowerment works. Following the old economic idea from Theodore Schultz (2013), which says we should "invest in the farmer," our research shows that giving women training helps increase their income. It has a clear, positive, and strong effect. But our study also finds something important.

This idea has a key exception that depends on gender. The success of training is limited by a bigger problem: women not owning land or assets. In our study, the strongest sign of making a lot of money wasn’t training, but owning land. The reason behind this outcome is simple: without resources like land, women don't have the security needed to borrow money, try new methods, or fully use the skills they learn. This leads to a harmful cycle where they can't improve or grow, even if they have training. This shows that development efforts focusing only on teaching skills aren't enough for real empowerment. The bigger point is that women can't make the most of their knowledge without having basic assets and rights. Their jobs and lives stay uncertain because they're given skills but not the tools or rights to use them properly.

Conclusion

Farming is the most important part of how Tharu women support their families and live their daily lives. It’s not just about growing food; it’s deeply connected to their social, economic,

and cultural lives. Economically, farming is their main way to make money and connect with the bigger economy. But the study shows that this same work also makes them vulnerable. They do a lot of hard labour, but much of the value they create ends up going to men instead of them. Socially, farming helps organize their routines and keeps them connected to their community. But it also keeps them in traditional roles that limit them. They are expected to work in the home and fields, not in the market or other public arena, which keeps them away from opportunities and makes them even more excluded. Culturally, being a farmer is a big part of who they are. They are seen as the key agents who take care of their families and feed the community. On a small scale, they are the ones who support the nation through their work. This study uses the experience of Tharu women as a small example of a larger issue. It shows that just because farming gets better doesn't mean women's lives get better. The study also portrays that improving farming through things like better seeds or more water alone won't fix the bigger problems. Real change needs to happen by making the system fairer and more just, especially for women who are at the heart of farming.

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