Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus

Mini-research Submitted to Research Management Cell (RMC-Sukuna)
Sukuna Multiple Campus, Sundarharaincha, Morang

Submitted by
Santosh Dahal
Teaching Assistance
BICTE Program
Sukuna Multiple Campus,
Sundarharaincha, Morang, Nepal
2025

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I, Santosh Dahal, hereby declare that this research report titled **Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus** is my original work and has not been submitted previously for getting any degree or other qualification in this or any other institution. To the best of my knowledge and belief, this work contains no material previously published or written by another person except where due reference has been made in the text. All sources of information and data used in this research have been properly acknowledged and referenced. The research was conducted ethically with consideration related to data collection or participant anonymity have been addressed.

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Name: Santosh Dahal

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Submitted To: Research Management Cell (RMC-Sukuna), Sundarhariancha, Morang, Nepal

Mobile No: 9843101315

Email: satnoshdl2002@gmail.com

Address of the Researcher: Damak-2, Jhapa

Signature:

Name of the Researcher: Santosh Dahal

Designation: Teaching Assistance

Name of the Campus: Sukuna Multiple Campus

Address of the Campus: Sundarhaaincha, Morang, Nepal

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Recommendation Letter

This is to recommend that the research report entitled **"Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus"** has been carried out by Mr. Santosh Dahal, a faculty at Sukuna Multiple Campus, under my supervision.

Mr. Dahal's research report is thorough and well-executed, providing significant insights into the e-learning Methodology and Tools adopted by student of Sukuna Multiple Campus. The methodology, analysis, and presentation of findings are of high quality, making this report a valuable contribution to the field of education.

I am pleased to recommend this report to the Research Management Cell of Sukuna Multiple Campus for final approval.

Shankar Dewan
Research Facilitator
Date: 11 July 2025
2082/03/27 BS

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Letter of Approval

This research report submitted by Mr. Santosh Dahal entitled "**Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus**" is funded and approved by the Research Management Cell (RMC - Sukuna) of Sukuna Multiple Campus, Sundarharaicha, Morang.

Approval Committee

Ganesh Prasad Dahal
Head of the RMC-Sukuna

Nara Prasad Bhandari
Member, RMC-Sukuna

Dipak Prasad Neupane, PhD
Member, RMC-Sukuna

Shankar Dewan
Researcher Facilitator

14th July 2025
2082/03/30 BS

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Thanking Letter

I would like to express my heartfelt thanks to Mr. Santosh Dahal, a faculty of this campus for his invaluable contribution to the research report entitled **"Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus"**. Mr. Dahal's dedication and hard work have been instrumental in the successful completion of this research project, and we are truly appreciative of his efforts.

The mini-research has been financially supported by RMC - Sukuna, and we are confident that the findings of this report will significantly contribute to our academic community. As such, the research report will be considered valuable campus academic property.

Once again, thank you for your hard work, dedication, and commitment to this project. Lastly, we are proud to have him as a part of our campus community. We look forward to continuing our collaboration on future projects.

Date: 15th July 2025
2082/03/31 BS

Arjun Raj Adhikari
Campus Chief

Arjun Raj Adhikari
Campus Chief

Acknowledgement

This research would not have been possible without the support and assistance of several individuals and institutions. I would like to express my sincere gratitude to Assistance campus chief Mr. ArjunRaj Adhikari and chairperson of Research Management Cell, Mr. Ganesh Dahal and other faculty and staff at Sukuna Multiple Campus. This research report would not be used in any other context except in the Research Management Cell (RMC - Sukuna) because of its financial support. All the sources of information have been specifically acknowledged by reference to the authors or institutions. I would like to express my sincere gratitude to my respected supervisor, Mr. Shankar Dewan for their valuable guidance, encouragement, facilitation and continuous support throughout the course of this mini-research.

Similarly, I would like to express sincere gratitude to Prof. Dr. Peshal Khanal for reviewing, final evaluating this mini-research and providing valuable feedback that significantly improved the quality of the work.

The 100 students also deserve a gratitude who participated in the survey and shared their experiences with e-learning tools and methodologies. Their willingness to contribute their time and perspectives was instrumental to this study.

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Er. Santosh Dahal

santoshdl2002@gmail.com

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Abbreviation

AI	Artificial Intelligence
ChatGPT	Generative Pre-Trained Transformer
E-learning	Electronics Learning
IWB	Interactive Whiteboards
ICT	Information Communication Technology
IT	Information Technology
LMS	Learning Management System
LX	Learning Experience
MS	Microsoft
ODL	Open and Distance Learning

Abstract

For centuries, classroom-based teaching-learning methods were adopted, but now technology has evolved, introducing e-learning. E-learning has made easy access, high-quality, low-cost, flexible and personalized learning experiences. However, there is limited information about the methodology and tools adopted by the students of the community campus. This study aims to explore the popular e-learning methodologies and tools used by students at Community Campus in Nepal. The survey research design method was employed to identify the student preference and usage pattern of e-learning methodology and tools among 100 randomly sampled students from different educational programs of Sukuna Multiple Campus. Although the institute has not taken significant steps towards e-learning, all program students were found to be more technology dependent in learning activities. Students of all the programs had preferences for a blended learning approach, combining both synchronous and asynchronous methods. Collaborative learning and flipped classrooms were the most popular e-learning methodologies, while gamification and adaptive learning were less popular among the students. The research also examined the most frequently used e-learning tools. Google Classroom was the most popular Learning Management System (LMS), used by 98% of students for e-learning purposes. Similarly, video conferencing tools Zoom and Google Meet were adopted by 84% and 51% of students respectively. Social media platforms YouTube and Facebook were the most used tools for gaining education through social media, adopted by 91% and 61% of students. Similarly, MS Office and Google Workspace were adopted by 89% and 38% of students respectively, as content creation tools for sharing and creating learning materials. Facebook Messenger has been adopted by 76% of students for collaborative academic activities. ChatGPT was the most preferred AI-based e-learning platform among 97% of surveyed students. The research revealed that 86% of students use free and open-source tools rather than paid e-learning tools.

CHAPTER I

Introduction

This chapter incorporates background of study-learning in Nepal, problem statement, rational of study, objective, research question, delimitation and definition of key terms.

Background of Study

The advancement in technology has uplifted humanity to new heights, enhancing our lives in countless ways. The opportunity to access the information, improved healthcare, communication, transportation, and revolutionized industries resulting innovation and efficiency. In recent years, the global viewpoint of the field of education has seen remarkable changes due to the advent of e-learning technology. E-learning has been implemented in Nepal and has been used by the educational institute, teachers, and students for the teaching learning process.

E-learning has been referred as technology-enhanced learning (Wheeler, 2012), distance learning (Wheeler, 2012), digital learning (Basak et al., 2018), mobile learning (Basak et al., 2018), internet learning, distributed learning, networked learning, tele-learning and telematics distributed learning, virtual learning, and computer-assisted learning. E-learning is now an integral part of education and training, as the educational materials are now found on internet and it can be accessed from anywhere and anytime across the globe so students around the world are using it.

Although developed nations have made great strides in implementing online learning models, the situation on the ground in Nepal's public campus has a very different picture. E-learning uses electronic or digital technologies with aid of internet, to facilitate and enhance learning experiences including various forms of online education, including online courses, virtual classrooms, digital educational materials, and interactive learning platforms (Wheeler, 2012). Due to deficiencies in digital infrastructure, ICT literacy, and resource availability, community and public campuses throughout Nepal are having a difficult time implementing e-learning (Giri, 2021). Although such problems exist in developed countries, the condition is worst in developing countries. Digital divide of the country has also been reflected within its public campuses.

In Nepal, COVID-19 pandemic acted as the catalyst for the adaptation of e-learning, forcing the traditional classroom teaching to online platform. Globally, after the spread of COVID-19 pandemic, the educational system was disrupted worldwide, with

more than 1.5 billion students and learners affected by educational institutions closure (UNESCO, 2020). Therefore, different tools and techniques for online learning ensured the continuity of learning and were promoted through immediate interaction and collaboration. To overcome the crisis, many countries in the world promoted e-learning to deliver the education (Aslam & Sonkar, 2021). During this difficult time, educational platforms rapidly shifted from offline to online classrooms. Ultimately, COVID-19 pandemic accelerated the adaptation of online learning making it dominant trend in education worldwide (Chatterjee & Chakraborty, 2020). The countries that were far behind in the implementation of e-learning started this methodology. Being forced to switch to online learning by the COVID-19 pandemic, many Nepali students who were taking physical classes and many were not familiar with e-learning were forced to adopt it. Educational institutions and the Ministry of Education responded by adopting platforms like Zoom and Google Classroom and broadcasting lessons via TV and radio (UNICEF Nepal, 2020).

Students on public campuses today are depending more and more on digital resources for their education due to the easy access to the internet and the affordable pricing of smartphones. Due to features like flexibility, immediate access to information, and interactive learning opportunities, e-learning platforms, educational apps, and online resources have become essential components for the teaching learning process. Though students on public campuses frequently encounter difficulties like irregular internet access, lack of institutional support, and inadequate digital literacy (Giri, 2021). Though there is problem with infrastructure implementing e-learning in campus students still rely on the free or paid e-learning platform for taking the education. Tools like YouTube, Moodle, Google Classroom and mobile applications are used by students for educational purposes (Pangeni, 2016). Due to the availability of these free or affordable Massive Open Online Courses (MOOCs), tutorials, animations, videos, and recorded lecture it has aided students to complement formal learning with personalized digital education. This growing use of digital tools reflects a shift in learning culture, where students take ownership of their learning experience even in the absence of fully developed institutional systems (Sapkota, 2020).

Although a lot of research has been done on e-learning behavior in developed countries, little local research has been done on how students in Nepal's public campus are using and adjusting to e-learning tools and techniques. By investigating the tools that

students are currently using, how they are using them, and the difficulties they encounter, this study aims to close that gap. Additionally, it aims to gauge students' awareness and preparedness for different e-learning platforms.

By concentrating on the real-world experiences of students on community campuses, this study will produce information that can guide future training initiatives, policy decisions, and investments in digital infrastructure, guaranteeing that e-learning develops into a useful and inclusive component of Nepal's educational system. Additionally, the results will assist educational institutions in determining which methodologies are working and which need further support, ultimately contributing to a more efficient and effective digital learning environment in Nepal.

Problem Statement

E-learning has created changes in the educational system since its evolution. Nowadays, e-learning has become a most important component of modern education and corporate training, however, in public campuses the integration of e-learning remains limited and uneven. Many public campuses could not afford e-learning technologies and resources, while some colleges have started their initiation. Most public campuses continue to rely on traditional classroom-based teaching, with minimal integration of modern e-learning tools.

Even with these problems, students with internet and computing devices are independently engaging with e-learning tools and methodology. However, there is a significant gap in understanding how students in these institutions perceive, utilize, and adopt e-learning methodologies on their own. The gap also persists on which e-learning methodology and tools students prefer and find effective for educational activities.

Previous research (Karki, 2021; Shakya, 2022) has shown problems with infrastructural challenges such as poor internet access, device shortages, and policy challenges. However, they do not give us greater information about specific e-learning methodologies and tools preferred by students in Nepal’s public campuses. Previous research was not focused on the adaptive strategies adopted by students on public campuses with limited resources in favor of top-down, urban-centric policy interventions. The implementation and effectiveness of e-learning in public campuses are often hindered by a lack of understanding of the diverse e-learning methodologies and tools available and how they align with students learning preferences and local context.

Rationale of Study

The traditional method of learning has been blended with modern ICT-enhanced learning, which is popular among the students. Nepal, a country with a dynamic geographical structure and socio-economic condition, has seen a significant shift toward e-learning. This study aims to find the e-learning tools and methodologies adopted that help access the condition of e-learning adaptation on the public campus. Nepal's educational system faces inequalities, particularly in rural and underprivileged areas where community campuses are providing education. This research aims to address this gap by analyzing methodology and tools of e-learning. While e-learning is widely researched in developed country, its adaptation in Nepal and more specifically in community colleges remains underexplored. This research will contribute to global knowledge about insights into the trends, adaptations, and impacts of e-learning in the context of the context of developing countries like Nepal. Similarly, the content-specific analysis of methodologies and tools for e-learning provides insights that can facilitate effective integration of e-learning into Nepal's education system, fostering a more inclusive and equitable learning environment for all students. The finding of this research to Nepal's educational policies and digital transformation. By examining the tools and techniques used on public campuses, this study defines what works and what doesn't, and why. That can inform future policy and investment in digital learning infrastructure. As the research is in perspective of student it helps to identify what e-learning methodology and tools are popular among the students. Educational institution can evaluate their delivery mode or delivery tools preferences and compare them with the actual student's preference and make necessary adjustments. Public campus or educational institute can change their further plan and policies for better improvement in implementation of e-learning. This study provides data related to the current state of e-learning on community campuses, identifying best practices, challenges, and areas for improvement.

Objectives of Study

The primary objective of the study is to identify eLearning methodologies and tools utilized within Nepalese higher education system.

. The specific objectives of this study report are as follows:

i. To identify e-learning methodologies adopted by the students on the community campus of Nepal.

ii. To identify different types of e-learning tools and software adopted by the students on the community campus of Nepal.

Research Questions

The research question of the study are as follows:

i. What are the different types of e-learning methodologies adopted by the students on community campuses?

ii. How frequently do students engage in different e-learning methodologies?

iii. What are the most commonly used e-learning tools across different categories?

Delimitations

The delimitation of the research is listed as below:

i. The study focused on the e-learning methodologies and tools that students have adopted for their studies, rather than on what the educational institution has implemented.

ii. The study has been done in only one institution.

Definition of Key Terms

Asynchronous Learning: In this study, asynchronous learning is defined as the form of e-learning, in which students and instructors consume course materials at different times and places, using recorded lectures, discussion forums, and self-paced modules.

Assessment: Measurement of progress, knowledge, and skills acquired by students in e-learning using quizzes, assignments, and automated evaluation tools.

Blended Learning: General definition used to refer to the practice of mixing traditional classroom learning with online learning activities in order to significantly increase the quantity of digital rather than physical classroom time.

Collaborative Learning: Possible changes might include altering the kind of collaborative learning; instead of coming together in real world space, a method for having students do collaborative work in assigned groups seems to have access to online mediums such as group chats, discussion forums, and shared documents.

Content - The digital instructional materials, in terms of text, video, images, and interactive simulations, which form the center of e-learning courses.

Curriculum Tools - These are digital tools and software needed in the design, construction, and delivery of e-learning content having such features as course design, automated grading, and interactive assessments.

Digital Library - This refers to the online storage and provision of e-books, research papers, videos, and other academic materials that support students in learning from anywhere.

Engagement - The active participation and interaction of students in an e-learning course is measured by the attendance, discussion participation, quiz attempts, and assignment submissions.

E-Learning - Teaching and learning through the electronic devices and in the Internet-enabled world to impart information or knowledge to study outside a normal classroom environment.

Flipped Classroom - This is where the student learns the concepts using the online materials outside the classroom and applies those concepts for discussion or interaction to the traditional classroom.

Gamification - The inclusion of game features in the design of e-learning platforms, such as those of leaderboards, points, and rewards-and the like-to engage and motivate the students.

Microlearning: An Educational approach that micro-delivers content through short, incisive learning segments, mostly applicable when developing a quick skill or reinforcing a concept.

Motivation - Psychological and emotional driving factors causing learners to participate in e-learning involvement, dependent on such factors as course design, interactivity, and feedback.

Open and Distance Learning (ODL)- The most open and distance learning program that student studies outside traditional classrooms with the use of digital platforms, recorded lectures, and online assessment tools.

Synchronous Learning - Method of e-learning wherein students and instructors meet real-time together in classrooms or through video lectures, chat discussion, or virtual classes.

Tool- Any digital application, software, or online platform used to facilitate teaching learning through software such as LMS, video conferencing apps, and content creation tools.

Knowledge Representation Tools- Digital applications that allow for the visualization, organization, or presentation of educational content in an e-learning environment, such as mind mapping software or interactive diagrams.

Learning Experience (LX)-The experience of the whole student during a particular e-learning course determined by course design, ease of navigation, quality of content, and interactivity.

Learning Outcomes - Specific knowledge, skills, or competency that students can usually expect to achieve at the end of an e-learning course often assessed through the examination, project, or skills demonstrations.

Learning Management System (LMS) – The software that manages, delivers, and tracks e-learning courses; functionalities provide content hosting, track students' progress, and evaluates online.

CHAPTER II

Literature Review

Here the literature review examines the existing study based on the e-learning tools and methodologies. IT includes theoretical review, empirical review and conceptual framework.

Review of Theoretical Literature

This section presents a review of various theoretical literature relevant to the study.

E-Learning Challenges and Opportunities in Nepal

E-learning has become most essential component of modern education. It benefits by offering interaction, scalability, communication, accessibility, flexibility, cost-effectiveness, and personalized learning (Haleem et al., 2022; Mushtaha et al., 2022; Thi & Minh, 2022). The challenged faced for implementing are digital divide, quality of instruction, digital literacy and maintaining learner learning (Haleem et al., 2022; Mushtaha et al., 2022; Thi & Minh, 2022). Due to these challenges full potential of e-learning has not been addressed. The integration of emerging technologies and a focus on lifelong learning will be key to the continued evolution and effectiveness of e-learning in education.

E-Learning Methodologies

By providing flexible learning methodologies, mainly through synchronous and asynchronous approaches, e-learning has revolutionized education. According to Food and Agriculture Organization (FAO, 2021) there are two e-learning approaches that are used: synchronous and asynchronous. Emails, discussion boards, and wikis are examples of asynchronous communication. Conversely, synchronous communication can occur when live sessions are scheduled. Examples of synchronous communication include audio and video conferencing. A range of communication tools are available for use by instructors, facilitators, and learners to collaborate. Oye et al. (2012) recommended three different methodology asynchronous, asynchronous and blended mode and suggests the blended form the best methodology for anytime and anywhere learning. The learning environment would be predominantly asynchronous with discussion, assignments and assessment and managed through synchronous tools. This suggestion supports my belief that both modes are necessary to meet the different learning needs of students.

Learning management systems (LMS) combine synchronous and asynchronous tools within one platform and are essential for the successful execution of flexible and blended e-learning settings. According to Furqon et al (2023) LMS can be classified as commercial and open source and based on access platforms as web-based and application-based. LMS provides a wide range of features, including content management, assessment tools, discussion boards, and student tracking, facilitating e-learning experiences. The LMS with features to store learning materials, communication and feedback systems increases learner independence. The claim that integrating both learning modalities promotes greater accessibility and engagement is supported by this support structure. Examining this role, it's clear LMSs are essential to any modern e-learning ecosystem since they are not only delivery tools but also strategic facilitators of pedagogical innovation.

The implementation of the flipped classroom model as an innovative strategy for online education, particularly for promoting active learning and a student-focused environment. Santos & Serpa (2020) studied the flipped classroom model, which reconstructs the conventional teaching sequence. It initiates with autonomous student work and culminating in the application of knowledge with proper teacher guidance. Focusing on active learning, this method enables students to participate directly in the creation of knowledge. It aids in gaining subject expertise and transferable skills that are essential for coping with problem of the 21st century. According to Bergmann & Sams (2023) under the flipped classroom model, activities, discussions, and problem-solving take place in class while students are exposed to material at home through readings and videos. Flipped classes use a variety of tools, such as online discussion boards, interactive simulations, and video lectures and promotes the creation of dynamic and attractive learning environments.

Collaborative e-learning is a methodology that combines the principles of collaborative learning with digital technology and promotes critical 21st-century skills such as collaboration, communication, and critical thinking. According to Sthal er al. (2014) collaborative e-learning allows students to work together being in different places through online platforms. It uses digital tools to facilitate interaction, cooperation, and joint intellectual efforts among students, regardless of their physical location. By promoting active engagement, critical thinking, and the sharing of diverse perspectives has the potential to enhance learning outcomes. In light of this, I think that collaborative

e-learning improves learning outcomes while also fostering the cognitive and social skills necessary for students to succeed in a world that is increasingly interconnected and digitally dependent.

AI-powered e-learning technologies are changing the way we learn by making it more personalized and interactive. AI-powered e-learning tools, such as ChatGPT allows conversation in in real-time, instant feedback and solve complex concepts. According to Khaldi et al.(2023) AI improves the educational experience by incorporating features such as automatic grading, feedback mechanisms, text-to-speech, speech-to-text, and advanced search capabilities, greatly enhancing accessibility and the overall learning journey. Reflecting on this, addition of AI into e-learning not only enhance efficiency but also transforms the educational process making it more student centered, insight based, and accessible to border population of learners.

Microlearning is a highly effective e-learning methodology that uses small content, focused segments that help learners to retain information more efficiently. According to Giurgiu (2017) microlearning breaks complex topics into small-sized, manageable content, which supports better understanding and longtime memorizing. Microlearning blended with asynchronous learning allows student to access and revisit the content time and again from their own place(FAO, 2021). Similarly, microlearning can be integrated with the LMS and promotes the personalized learning tracking and customizing modules based on the learner performance (Furqon et al., 2023). Microlearning is trending due to the learning methodology that responds effectively to the evolving to complement the needs of modern learners that aids being focused, engaging and flexible educational experiences.

E-Learning Tools and Software

Oye et al. (2012) highlighted the three major e-learning tools: curriculum tools, digital library tools and knowledge representation tools. Curriculum tools is integration of instructional tools which include curriculum design and online quizzes with automated grading. Administration tools include file management authentication, and authorization. And lastly the student tools include browsing class material tools, collaboration and sharing tools, learning progress scheduling and tracking tools, self-testing and evaluating and WebCT and Blackboard tools. Digital library tools provide the platform to find the right information from large amount of digital content. Similarly, knowledge representation tools visually review, capture, or develop knowledge.

Researchers support the use of e-learning and e-learning blended with traditional approach was catalyzed by the COVID-19 pandemic. Ali et al. (2023) conducted experimental research to find impact of e-learning and blended learning methodology. Similarly, research on e-learning tools and platforms that supports e-learning suggest different types based on type of classification. Dearmer (2023) categorized e-learning tools into six types: authoring tools, LMS, video conferencing tools, assessment tools, content libraries, and interactive tools. It also lists some of the top e-learning tools in 2023, such as Appsembler, Canvas, Absorb LMS, EasyGenerator, PowToon, Thinkific, Graphy, TalentLMS, and SkyPrep.

According to Leporini et al. (2023) video conferencing tools aids multiple people from various physical locations, to connect and work together virtually. They help in sharing text, audio, video and presentations over the internet in real time. Some of the most popular video conferencing tools used for e-learning are Zoom, Google Meet, and MS Teams

Social media is an easy source of information by applying simple commands. As e-learning has been accelerated by making use of these platforms, these tools are best for academic and professional learning. Social media tools like Twitter, YouTube, Facebook, LinkedIn and WhatsApp have been used by students on a regular basis (Ahamad et al., 2023).

The success of AI product on teaching learning like chatgpt has suggested clear pathway for its implementation. AI powered eLearning have creating engaging and personalized learning experience. AI has capability of automatic grading and feedback system, text to speech and speech to text has improved accessibility, and provides smarter search capability (Philip, 2023). According to Arora (2014) AI tools are applications that use artificial intellegence algorithms to carry out a particular task and solve problems. Some of the Ai tools are ChatGPT, DALL-E, Midjourney, Sythesia, Copilot, Fliki AI, Alli AI.

Governmental Plan and Policy Of E-Learning

The IT Policy of Nepal (Nepal Government, 2016) target education calling for integrating ICT across education system to improve pedagogy and access. The policy seeks to deploy ICTs across university, college and all levels to improve educational outcomes and equitable access to education and training facilities. It prioritizes ICTs in pedagogy and develops human resource by increasing educational institutional capacity

that offer ICT courses. The policy also discusses the creation of easily accessible, affordable, and innovative public access points for ICT supporting all the e-learning initiatives. Similarly, the policy promotes research and innovation within the ICT sector developing e-learning tools and platforms. This approach is designed to enhance educational quality, expand access, and promote innovation in Nepal's education system. The Digital Nepal Framework (DNF) (Nepal Government, 2019) had the objective of integrating ICT at all levels of education, improving the quality, access and equity of education through digital tools, creating digitally literate and skilled workforce to meet future job demands. DFN promotes development of e-learning platform and digital content for schools and universities, implementing smart classroom, digital libraries and expanding LMS. It encourages the open and distance learning (ODL) ensuring equal access of education with special effort for the student in remote areas. DNF targets narrow down the technological inequality between urban and rural areas with a plan to connect all public schools and campuses with high-speed broadband internet. It targets creating a national educational data center centralizing learning material and establishing digital learning hubs in local communities.

Review of Empirical Literature

E-learning has transformed the landscape of education providing flexibility, accessibility, and scalability. Study about e-learning tools and methodology was started from the time it was developing and used.

A study by Zhang & Nunamaker (2003) used a systematic literature review methodology to analyze trends and needs in e-learning. The objective of research was to understand the effectiveness, challenges and opportunity of online learning platforms. The finding revealed that e-learning platforms has aided education by providing flexibility and personalized learning experiences as learners can access content at their own pace according to individual needs. The adoption of technologies like LMS, virtual classrooms and multimedia content, has facilitated this shift with several benefits, including cost savings, global access, and scalability. Still challenges exist about platform stability, learner engagement and addressing ethical considerations.

Nath et al. (2012) used integrative review aiming to examine the various methodologies employed in e-learning and designing learning objects and which can be applied to develop e-learning material in a better way. The researcher found e-learning as pivotal in the modern technology-friendly world, offering flexible access to learning

materials globally. Initializing with online learning, it evolved using Learning Object (LO) technology for storing and assembling small content pieces and delivery on demand, which resulted in a revolutionary product that blends classroom methodology with self-study methods. This methodology will be applicable to many industries, like technology and engineering education's enhanced material development. It examines organizational, technological, educational, and pedagogical aspects and concludes with recommendations on how to effectively utilize ICT to foster learning. The research investigates technological facilitators of e-learning; technical innovation, organizational change, and employee/learner-based needs. The authors also constructively highlight mobile technologies, simulations, and adaptive learning environments that have significant potential to impact the future of e-learning. The research also examines software applications, such as LMS, CMS, and LCMS, that support and/or enable e-learning activities.

Yang et al. (2015) adopted the quasi-experimental design to access the educational effects of specific pedagogical knowledge which utilizes Interactive Whiteboards (IWB) in junior high school biology. It was found that IWB had a positive impact on student learning effectiveness and the general attitude of their learning experience. More active participation by students and a low level of lecturing in the IWB group may contribute to a more relevant and interactive learning experience. This indicates that when IWBs and other similar technologies are used appropriately, they can create a better dynamic of engagement for students in the class, and ultimately, student learning and outcomes hit tremendous heights.

Pangeni (2016) used systematic review to explore how open and distance learning (ODL) is being practiced in Nepal. The study examined the contextual reality of ODL practices in Nepal and various thematic issues were explored including modes of learning associated influenced by education culture tradition, ODL as a educational tool for teaching learning of teacher flexible learning for Nepali students and implementation of ODL in Nepal. The study offers a very hopeful future of ODL in Nepal as an alternative method of education. It is noted that establishing an Open University is important, as well as the ability to implement ODL by the existing universities. This study also highlights the need to acclimatize to the acculturation of online learning, especially with regards to the learner and other participants that have become accustomed to an internet-dominated culture. This indicates that with the implementation of ODL, there will be a more

accessible and inclusive way for the people of Nepal to take advantage of education, which is essential for 21st century learner needs.

Javoricik and Polasckdy (2019) conducted experiment aimed at determining the effectiveness of microlearning and e-learning courses. The research employed hybrid research methodology to assess the educational outcome and compared the impact of these two varients on the knowledge acquisition and skill development of prospective teachers. The findings suggested that microlearning adoption resulted in higher engagement and retention among teacher candidates when compared to traditional e-learning courses. Also, microlearning was especially useful for the retention of key concepts and the application of teaching skills. Additionally, challenges were experienced regarding the design and use of microlearning in ensuring that content was relevant and allowed for different individual learning preferences. Altogether the findings offered a glimpse into the capability of microlearning as a complement to teacher education to promote more personalized and efficient learning experiences.

Simonson et al (2019) conducted systemic literature review research about distance learning with aim to know the theory, research and practice. Research found distance learning helps students to access and study content at their own pace and convenience. The resources such as pre-recorded video lectures, discussion forums, email and quizzes will be distributed to student my any means. Similarly, Asynchronous learning will be suitable providing ability to study and different schedule and time zone, when learners are free. Asynchronous learning relies on digital resources, such as discussion boards and multimedia presentations, to deliver content that learners can access at their convenience.

Thakker et al. (2020) conducted research to evaluate the e-learning experiences of engineering students across India. The study used an online survey to measure students' perceptions of different e-learning platforms. Overall, Google Meet was the most preferred e-learning platform, the Microsoft Teams platform had the highest satisfaction score. The study found evidence to suggest these technical, psychological and biological variables have implications for e-learning. The study provides some interesting and useful insights into the influences of these factors on the e-learning experience, in order to improve it. While the pandemic has inherently forced the online learning experience, it is hoped addressing the factors affecting the e-learning experience, will improve e-learning while the pandemic is still impacting education, and, in time, improve online learning into

the future. The study has some practical implications, providing educators with key and operable strategies for improving e-learning platforms and stimulating student engagement. Collectively the findings of this research study provide insights into e-learning preferences and experiences, in the context of engineering education in India, that may help to inform the future practices and policies in education.

Sapkota (2020) conducted research during the COVID-19 using convenient sampling method using social media and google form among the student of Nepal. Research revealed that more than 80% of students considered smartphones, laptops, internet accessibility, and software applications as crucial resources for E-learning participation. Almost 80% of students cited electricity as an important resource, while 60% noted the requirement of a separate room for e-learning. About one in three students understood the value of possessing IT skills for efficient e-learning. Similarly, Nepali colleges used different software for e-learning, with Zoom being the most preferred, used by 97% of students. 24% of students used messenger groups and Google Classroom. Google Meet usage was at 11%, followed by Viber Call at 5%, and 4% each for Microsoft Teams and Facebook Live. Other platforms were used by 2% of the students. During the COVID 19 pandemic, the overwhelming preferred software was Zoom, with 74% of students using it, Google Classroom, messenger groups, Google Meet, and Microsoft Teams were used by 10%, 7%, 4%, 2% respectively. From these results, the clear and critical resource needs for streamlined and effective E-learning stands out alongside the overwhelming usage of Zoom and other software in Nepalese colleges as well as the students' preferences during the COVID-19 pandemic.

Aslam & Sonkar (2021) carried out the research using descriptive methodology to study the tools and techniques for online learning. UNESCO website was used to collect the data related to different country. The research categorized e-learning tools into five categories as productivity-oriented, learning oriented, student participation, knowledge management system and tools for creating and distributing courses and content. With these tools, the learners can be engaged meaningfully, learn through interactions, and receive content in a timely manner. As part of the productivity-focused tools, bookmarks and calendars help learners manage their time efficiently. The learning-oriented tools allow participants to have discussions, share knowledge, and work together which helps in building community for online learning. Students' participation tools empower learners with self-assessment capabilities, group organization, and access to their progress data.

Moreover, the knowledge management systems help in organizing and retrieving stored collective knowledge, which helps collaboration and sharing of knowledge. The tools for creating and distributing courses help in formulating, delivering, and assessing the courses while capturing and analyzing the feedback on the learner's participation and progress. The online learning tools and their usefulness to learners and educators are enhanced by the convergence of all these tools. The empirical research by Revathy (2021) aimed to compare the traditional and modern e-learning method. E-learning, a flexible form of education, utilizes elements of multimedia to facilitate learning anytime, anywhere with online lectures, self-assessments, and varied modes of content delivery enhance the learning experience. The benefits of E-learning include its effectiveness, comparable to corporate training programs, with evidence for the same learning outcomes.

Schwab (2021) stated that AI in online learning to customize education and streamline instructor tasks. However, it raises concerns about how AI might affect the dynamics and expectations in student-instructor interactions, which play a pivotal role in online education. The quality of these interactions greatly influences student satisfaction and learning outcomes. Therefore, there's an urgent need to explore how students and instructors view AI's impact on these interactions, as this insight can uncover obstacles that may impede AI's full potential and compromise interaction safety. AI implementation in different sector especially in health and education sectors are very popular nowadays.

Seo et al. (2021) studied how AI works in online learning environments. Employing the exploratory research methodology, the authors explored the views of students and instructors to see how AI affects interactions in online education. Collecting data from 23 participants, the study's results highlighted the AI-related advantages for interaction privatization, as well as the greater issues of responsibility and surveillance. The study shows the importance of explainability lacking AI decision-making, human agency needing to be embedded in automated processes, and education data needing to be handled carefully in order to integrate AI appropriately into education.

Murtaza et al. (2022) in-depth surveyed the research paper to AI-based personalized e-learning systems, identifying potential to enhance education and aid individual learners by tailoring content to individual. It describes personalized learning provides specific learning content, assessment and task to the learner according to performance of the learner. These tools can use AI providing appropriate and specific

content design using the level of comprehension of learner and preferred modes learner selected. With analysis and data, instructors, can tailor content and assessments to the individual learner's needs and preferences, thus improving engagement and understanding.

Some of the research on ICT enabled education has been done in context of Nepal. Giri (2021) conducted a comprehensive analysis of the utilization of ICT tools in the context of online education during the COVID-19 pandemic in Nepal. The research highlights how ICT tools are essential in facilitating remote and flexible learning in context to developing countries like Nepal. Findings revealed that ICT enabled teaching and learning process increase instructional delivery and learner engagement, which is often obstructed by infrastructural limitations, lack of digital literacy, and inadequate policy support. Similarly, it was concluded that the digital divide that persist in Nepal is due to difference in ICT access in urban and ruler areas.

Naik (2023) used systematic review methodology to review effectiveness of the flipped classroom strategy in increasing students' performance and academic achievement. The research analyzes how this methodology shifts traditional teaching methods encouraging students to engage with course material outside the classroom. Research on different disciplines and educational level reviled that flipped classroom has the positive result increasing student engagement, enhanced critical thinking and better content retention. Similarly, flipped classroom fosters deeper subject understanding promoting active learning, collaboration and self-directed learning. The research points technology integration, faculty training and supportive environments for proper implementation of this methodology that helps prepare student for modern workforce.

With increased technological advancement augmented reality (AR) and virtual reality (VR) technology embedded on e-learning tools. Odongo (2023) conducted systematic literature review on paper from 2018 to 2023 to investigate the role of AR and VR on e-learning. The study provides comprehensive overview of the current landscape, emerging trends, theoretical underpinnings and practical implementations of AR and VR in e-learning methodology. The study highlighted AR and VR promoting learner engagement, knowledge retention and skill acquisition during pedagogy. Similarly, research highlights benefits and challenges associated with the methodology of integrating AR and VR technologies in e-learning, cost considerations, technical limitations and user experience factors.

Research Gap

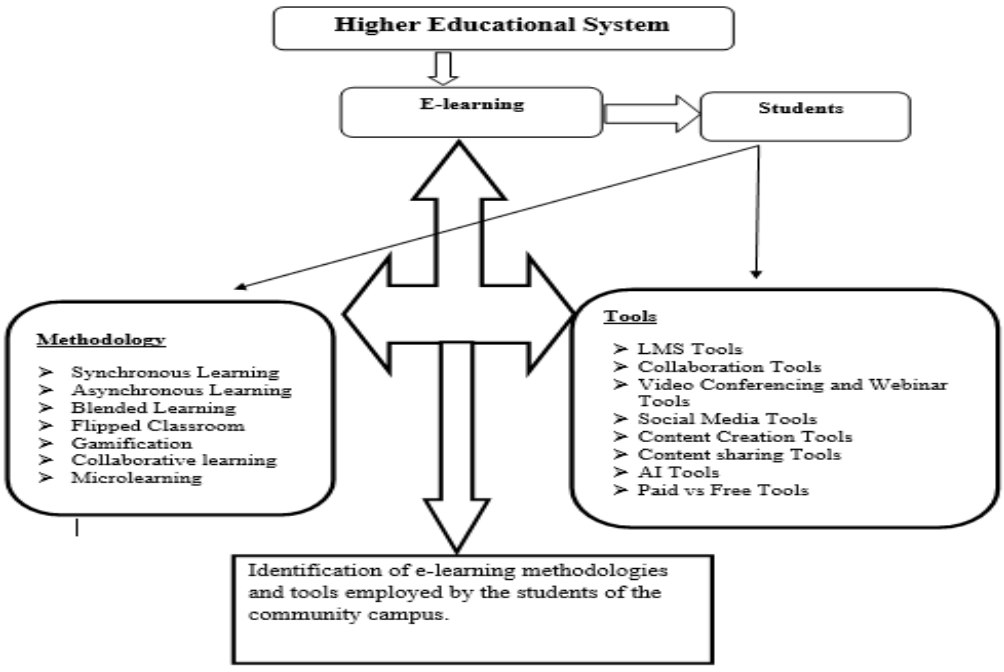
There is global literature on e-learning methodologies, but not sufficient research based on unique context of Nepal's community campus. Most existing research (Haleem et al., 2022; Mushtaha et al., 2022; Thi & Minh, 2022) offers overview of e-learning challenges and without being into region specific issues such as infrastructure, cultural attitude and local policy impact. Similarly, research by Sapkota (2020) highlights the use of specific tools like Zoom, and Google Classroom during the Covid-19 pandemic, but doesn't provide any analysis how these tools were integrated into daily learning practices in post pandemic or long-term use. There is a lack of study about the e-learning tools and methodologies in context of developing nation like Nepal, which has the unique challenges and needs. There are lot of research of tools and methodologies from the perspective of institutions or paralogical paradigm, and less focus on actual implementation, adaptation ad experience of student e-learning tools in public campus where resources are limited. The digital divide is the barrier to consider for the effective implementation of e-learning in Nepal. But there is limited data on how students in community campus will be affected.

Conceptual Framework

The conceptual framework for the research is as follows:

Figure 1

Conceptual Framework



CHAPTER III

Methods And Procedures

This chapter contains the methodology adopted throughout the study. In the following sub-sections: Research Design, Study Area, Sample Size and Sampling Procedure, Instrumentation for Data Collection, Instrumentation for Validation, Sources of Data, Data Gathering Procedure, Tools for Data Analysis, Data Analysis Procedure, and Ethical Consideration.

Research Design

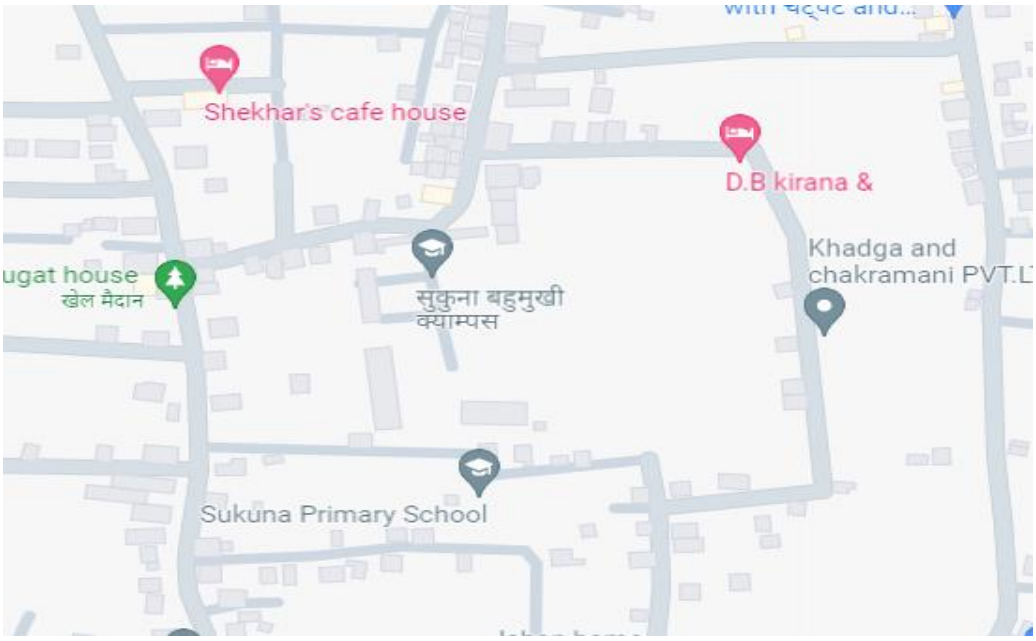
The study on "Use of E-Learning Tools for learning by Students in Sukuna Campus" followed a quantitative research approach with a combination of descriptive and analytical design. Survey design was selected as the data collection method due to its ability to collect standardized, quantifiable data from a sample of students. It also provides flexibility to efficiently collect and compare responses. The survey was created using an online template through Google Forms, and a link was provided to the sample of students from groups operated by college departments. Responses were then analyzed using statistical techniques using MS Excel.

Study Area

The study area of the research was Sukuna Multiple College.

Figure 2

Map of Sukuna Multiple Campus



Sample Size and Sampling Procedure

The sample of 100 students was selected using simple random sampling methodologies. The target sample of the survey included students at community Campus. Efforts were made to include participants with varying levels of experience in e-learning. Students from different programs and different years or semesters were selected.

The sample size was determined using the standard sample size calculation formula for proportions:

n= $Z^2.p.(1-p)/e^2$

n = required sample size

Z = Z-value (1.96 for 95% confidence level)

p = estimated proportion of the population (assumed to be 0.5 for maximum variability)

e = margin of error (typically set at 0.1 or 10%)

With a 10% margin of error, a 95% confidence level, and a proportion of 0.5, this formula yields a sample size of roughly 96. For this study, a sample size of 100 was deemed adequate and statistically valid. Students from various academic programs, years/semesters, and e-learning experience levels were included in an attempt to guarantee diversity and representativeness. This improves the findings' applicability to the larger student body on community campuses.

Instrument for Data Collection

A survey questionnaire was provided to the students to collect quantitative data about their opinions and experiences in e-learning. A survey instrument was developed to gain accurate information regarding the methods of e-learning methodologies and tools of various subjects and levels, which had a structured and closed-ended questionnaire.

The questionnaire was created by passing through multiple steps. The literature review was first carried out by visiting the research database Google Scholar, Science Direct, IEEE and other databases were used to query the research paper using appropriate keywords. Items were drafted in accordance with the goals of the study and their respective findings. Likert-scale formats, multiple choice, and dichotomous options (e.g., yes/no) were used to ensure that each question was clear, succinct, and directly related to the research questions.

Instrumentation and Validation

A thorough literature review and questionnaires were utilized as a data collection tool in this study. The survey form was created on Google Forms and was designed to

access perceptions and experiences related to e-learning tools and methodologies from the student. To facilitate a comprehensive evaluation, the questionnaire adhered to criteria established in earlier studies. On a parallel note, supervisor feedback was obtained regularly and necessary modifications if any were carried out as per the guidelines. A pilot test involving five participants was carried out to cross-validate the instrument and based on their feedback, necessary changes were made. As feedback from pilot many questions were converted to Nepali and some of the technical terms that were harder to understand were simplified. The literature review was a necessary utility to identify gaps, inform the study context, and improve subsequent data collection procedures.

Sources of Data

The researcher used both the primary sources and secondary sources.

Primary Sources

The students of community campus were the primary sources of the data collection. Surveys captured quantitative data from students. This data sources aimed to enhance the credibility and comprehensiveness of the study.

Secondary Sources

Secondary sources included academic journals, research papers, reports, and relevant publications, forming the basis of the literature review. They serve as the foundation of literature review that framed the study context, identify research gaps and guided for creation of research instrument and methodology.

Data Gathering Procedure

The survey questions were distributed via the internet using Google Forms. The Facebook group of the college was used to provide the link of Google Form to the student. Some students were personally followed up and encouraged them to respond. The students provided their views according to the questions. After the completion of the survey, the data was exported as an Excel file and used as input for further processing.

Tools and Data Analysis Procedure

A customized survey using Google Form was created to gather comprehensive data on students experience and preferences. Pilot study was conducted to identify any ambiguities, confusing questions or technical issues in the questionnaire. Based on the pilot responses and participant feedback, need of correction was understood. There were a few questions that seemed difficult to understand because they contained technical language and were removed with simple language to help with comprehension.

Participants also stated that the questionnaire would be easy to understand if the questions were in Nepali, which limited their ability to respond as accurately and questioner update as needed.

The quantitative data collected from the questionnaires were analyzed using a variety of statistical techniques including both descriptive and inferential statistics techniques. The data were analyzed using the built-in analytics in Google Form and Microsoft Excel. Google Form provides the means to provide an initial summary including the number and percentage of respondents. Google Form has visualizations built-in as well, so there will be the opportunity to develop an initial summary of the descriptive data visually. The data were transferred into Microsoft Excel for processing and re-organizing and further exploring. Several descriptive statistics were calculated such as frequency, percentage, mean and standard deviation in order to describe student responses in relation to their use of e-learning tools and methodologies.

The findings from the analysis were then synthesized and presented in a comprehensive manner, addressing the research objectives and providing a detailed understanding of e-learning tools and methodologies adopted by student of community college. Descriptive statistics such as frequency, percentage, mean, and standard deviation were computed to summarize student responses regarding their use of e-learning tools and methodologies. The findings from the analysis were then synthesized and presented in a comprehensive manner, creating detailed visualization and using pivot tables, addressing the research objectives, and providing a detailed understanding of the e-learning tools and methodologies adopted by students at community colleges. The analyzed data was then organized into meaningful categories.

Ethical Consideration

Approval was granted from the college's administrator, and the participants gave their consent before data collection. No any rewards and incentive were provided to the participant and survey was entirely voluntary. Participants were informed that their privacy and confidentiality would be protected.

CHAPTER IV

Result And Discussion

This chapter deals with the analysis and interpretation of the findings obtained during the research.

Demographic Information

This study highlights the demographic information of participated students.

Table 1

Participant Demographic

Title	Number/Percentage
Gender	
Female	61
Male	39
Total	100
Educational Program	
BBA	68
BICTE	20
BBS	12
Total	100

Source: Field Survey, 2024 AD

Table 1 shows that total number of male and female students were 39% and 61% respectively. The educational programs represented show a higher number of students from BBA (68%), followed by BICTE (20%) and BBS (12%). This demographic composition suggests that the majority of the participants are pursuing business-related degrees, with a significant portion engaged in technology education.

E-learning Methodologies Employed by Students

As the primary objective of the research was to find the e-learning methodology adopted by the students of the community college the following data and description support this aim.

Learning Preference of Students

From the study, a majority of students prefer a hybrid approach that combines traditional classroom-based teaching with modern e-learning tools.

Table 2

Learning Preference of Students

Learning Preference	Percentage
Traditional classroom-based learning	6
Modern E-learning	20
Hybrid of Traditional & Modern E-learning	74
Total	100

Source: Field Survey, 2024 AD

Table 2 shows the learning preference of the students. Among 100 student 74% of them prefer the hybrid of traditional and modern e-learning whereas 20% of them preferred modern e-learning and only 6% them prefer traditional classroom-based pedagogy system. The strong preference for hybrid learning shows that students recognized the capacity of hybrid model of learning. It also shows the growing need of flexible and accessible education methodology.

Use of E-learning Methodologies

Students in community campuses tend to use asynchronous e-learning methods more frequently than synchronous methods.

Table 3

Use of E-learning Methodology

Methodology	Never	Rarely	Occasionally	Frequently	Very Frequently	Mean
Asynchronous	3	22	24	40	11	3.34
Synchronous	1	22	42	23	12	3.23
			Grand Mean			3.28

Source: Field Survey, 2024 AD

Table 3 shows the use of different modes of e-learning. Asynchronous learning was practiced very frequently by 11%, frequently by 40%, occasionally by 24%, rarely by 22%, and never by 3% of students, with mean score of 3.34. This score highlights a strong preference for the flexibility that asynchronous learning offers. For synchronous learning 12% of the student used it very frequently, frequently by 23%, occasionally by 42% of students, rarely by 22%, and was never practiced by 1% with a mean score of 3.23. This suggests that while synchronous learning was valued, it was less frequently used compared to asynchronous methods. In general, the engagement with a grand mean

score of 3.28 is to say that, among the two, there is more inclination toward the flexibility, asynchronous learning offers. This suggests that asynchronous learning is very popular among the student that the synchronous one.

Preference of E-learning Methodologies

A majority of students in community campuses prefers hybrid e-learning methodology that combines both synchronous and asynchronous modes.

Table 4

Preference of E-learning Methodology

E-Learning Methodology	Percentage
Synchronous	10
Asynchronous	29
Hybrid of Synchronous & Asynchronous	61
Total	100

Source: Field Survey, 2024 AD

Table 4 indicates an overall preference for e-learning methodologies. Among the students, the preference for a hybrid model that incorporated both synchronous and asynchronous learning was 61%. This was compared to 29% choosing only for asynchronous learning and 10% for synchronous learning. The distribution of preferences indicates there remains a need to incorporate multiple methodologies relevant to a diverse group of students. The result indicates that students appreciate the opportunity offered by asynchronous learning, such as accessing materials at their own pace and also supporting interactive and collaborative elements of synchronous sessions. The low preference for synchronous learning can be due to practical realities that discourage synchronous participation such as fixed time of session, technological barriers, or connectivity issues.

Methodology of E-learning Used

Majority of student in community campus has adopted LMS based and collaborative learning as part of their learning habit.

Table 5

Methodology of E-learning Used

Methodology	1	2	3	4	5	Total Score	Mean
Flipped Classroom	10	22	35	26	7	298	2.98
Adaptive learning	8	22	25	36	9	316	3.16
Gamification learning	30	37	15	14	3	222	2.22

Collaborative learning	5	14	28	40	13	342	3.42
Microlearning	13	23	20	40	4	299	2.99
LMS based Learning	4	11	24	27	34	376	3.76
Grand Mean							3.08

(1 =Never, 2 =Rarely, 3=Occasionally, 4=Frequently, 5 =Very Frequently)

Table 5 presents the analysis of e-learning methodologies based on Likert scale responses. The methodologies analyzed include flipped classroom, adaptive learning, gamification learning, collaborative learning, microlearning, and LMS-based learning. Regarding the method of flipped classroom, 10% of the students never used this methodology at all, while 22% of the students reported using it rarely. As many as 35% of the students reported using it occasionally, while 26% reported using it frequently, and 7% claimed very frequent use of this methodology. The mean score for the uses of flipped classroom methodology stood at 2.98, which is less than the grand mean and indicates its less popularity among the students of community colleges in Nepal.

Similarly, for adaptive learning 8% of the students never used it, 22% said they use it rarely, 25% used it occasionally, 36% used it frequently, and 9% claimed to use it very often. The mean for adaptive learning was 3.16 which is greater than the grand mean indicates its popularity among the students.

Regarding the method of gamification, 30% of the students never used this methodology at all, while 38% of the students reported using it rarely. As many as 15% of the students reported using it occasionally, while 14% reported using it frequently, and 3% claimed very frequent use of this methodology. The mean score for the uses of gamification methodology stood at 2.22, which is less than the grand mean and indicates its less popularity among the students of community colleges in Nepal.

Regarding the use of collaborative learning methodology, 5% of the students never use this methodology, 14% use it rarely, 28% claimed that they use it occasionally, 40% do so frequently, and 13% very frequently. The mean score was 3.42, which shows it as the most popular e-learning adopted by the students.

For microlearning, 13% of the participants never use this method, while 23% reported rarely using it. As many as 20% have used it from time to time, while 40% use it often, and 4% use it very frequently. With a mean score of 2.99, this indicates that at a moderate level, the students use microlearning. That is to say, though it is of great advantage in its usage, its application could be further increased.

For instance, regarding the LMS-based learning feature, 4.4% claimed to never have used it, and another 12.1% mentioned having used it rarely. About 16.5% declared that they use it occasionally; 29.7% expressed frequent use, while 37.4% declared use as very frequent. The mean score is 3.76; comparing with the grand mean shows high engagement in LMS-based learning.

As the means of LMS-based learning (3.76), collaborative learning (3.42), and adaptive learning (3.16) are greater than the grand mean (3.08), these methodologies are highly popular methodologies adopted by the students. Similarly, the mean of microlearning (2.99), flipped classroom (2.98) and gamification learning (2.22) indicates they are least popular among the students.

These results emphasize the importance of learning environments that are open, engaging and customized from an educational point. Though, innovative approaches like microlearning and gamification have great pedagogical potential, they are not adopted by the students this condition improves by greater awareness, teacher education, and infrastructure support.

E-learning Tools Employed by Students

As the primary objective of the research was to find the e-learning tools adopted by the student of the community college the following data and description support this aim.

LMS Tools for E-learning

Google Classroom is the most widely adopted LMS tool among students of public campus, while the use of other tools remains relatively low.

Table 6

Use of LMS Tools for E-learning

LMS Tool	Number/Percentage
Google Classroom	98
Moodle	7
Canvas	25
Blackboard	17
E-school	8
Veda	7
mySecondTeacher	17
Vurilo	3

Other Software	24
No Any	2

Source: Field Survey, 2024 AD

Table 6 shows the LMS tools usage among a sample of 100 students. It shows that 98% of students used Google classroom which shows the dominant preference of students to Google Classroom. Canvas was used by 25% students and other non-specified software tools were used by 24% of them. Both Blackboard and mySecondTeacher were moderately used by 17% of students. While moodle and e-school adopted by 7%, and veda also had a low adoption rate of 8%. Vurilo was least used by the students, with only 3%.

Social Media Tools for E-learning

Majority of student of public campuses use Youtube and Facebook as social media tools to support their learning.

Table 7

Use of Social Media Tools for E-learning

Social Media Tools	Number/Percentage
Facebook	61
YouTube	91
LinkedIn	19
Coursera	7
Skill Share	3
Tik Tok	14
Twitter	11
Pininterest	17
Other Software	34

Source: Field Survey, 2024 AD

A wide range of social media tools were utilized for e-learning. Majority i.e. 91% of students used YouTube in their e-learning activities, it was the most popular platform. Facebook usage for e-learning came in second with 61%, demonstrating its importance in fostering communities and information exchange and 34% of students said they utilized other software. The moderate usage of TikTok (14%) and Pinterest (17%), LinkedIn (19%), and Pinterest (17%). Twitter was used by 11%, while Coursera (7%) and Skillshare (3%) by them.

Content Creation Tools

Students heavily rely on popular content creation tools like MS Office and Google Workspace, while the use of other e-learning authoring tools is minimum.

Table 8

Use of Content Creation Tools

Content Creation tools	No. of Student
MS Office	89
Google Workspace	38
Articulate Storyline 360	3
Elucidat	1
WPS Office	26
Ispring Suite	2
Easy Generator	4
Other Tools	12
No Any	4

Source: Field Survey, 2024 AD

Table 8 shows the content creation applications used for e-learning among students. It shows that the students had a significant inclination toward conventional, easily obtainable tools. Microsoft Office was the most popular used by 89% of students. Similarly, 38% of them adopted Google Workspace, which came in second. Moderately, 26% of them reported the use of WPS Office and 20% of them used other tools, indicating a range of specialized applications. Only 4% of them said they did not use any content creation software. A small percentage of students, 3%, 2%, 1%, and 4% indicated modest use of tools like Articulate Storyline 360, Ispring Suite, Elucidat, and Easy Generator respectively.

Knowledge Sharing Tools

Study shows that the majority of students on public campuses use LMS as knowledge-sharing tools.

Table 9

Use of Knowledge Sharing Tools

Knowledge Sharing Tools	No. of Students/Percentage
Content Management System	12
File Sharing Platform	48

LMS	76
Video Sharing Platform	33
Message sharing platform	63
Other Tools	3
No Any	10

Source: Field Survey, 2024 AD

Table 9 provides a clear picture of how different knowledge sharing tools are utilized among students. In total 12% of students utilized content management systems, while 48% used file sharing platforms. Similarly, learning management systems (LMS) were used by 76% of users, and video sharing platforms were used by 33%. message-sharing platforms were used by 63%, with only 3% using other tools. Additionally, 10% of users reported not using any knowledge-sharing tools.

Video Conferencing Tools

Zoom is the most preferred video conferencing tool for students, however Messenger and google meet are also important in making virtual communication easier.

Table 10

Use of Video Conferencing Tools

Video Conferencing Tools	N0. Of Students/percentage
Zoom	84
Google Meet	51
MS teams	23
Facebook Messenger	59
Skype	2
Others	10
No Any	3

Source: Field Survey, 2024 AD

Table 10 provides an overview of video conferencing tools used among students. Zoom is the most widely adopted video conferencing tool, with 84% of students using it and Google Meet follows with 51% of students. Microsoft Teams is utilized by 23% of students, Facebook Messenger is also widely used with 59% of students using it. Skype is not popular and rarely used for e-learning, with only 2% of students using it as it has

fewer e-learning features embedded. Other unspecified tools are utilized by 10% of students. Only 3% of students do not use any video conferencing tools.

Collaborative and Interactive Tools

Majority of student use Facebook Messenger as collaborative and interactive tool among students of public campus, then tools like Microsoft Teams and Google Workspace.

Table 11

Use of Collaborative and Interactive Tools

Collaborative and Interactive Tools	No. of Students/percentage
Google Workspace	21
Microsoft Teams	22
Blackboard	11
Zoom	40
Facebook Messenger	76
Other Platform	8
No Any	8

Source: Field Survey, 2024 AD

Table 11 shows the use of collaborative and interactive tools for the learning purpose. It shows Facebook Messenger emerged as the most widely used tool, with 76% users which are popular for formal or informal communication and collaboration and Zoom, with 40% users. Microsoft Teams and Google Workspace were used by 22% and 21% respectively for collaboration and interaction. Blackboard was used by 11% students, played a significant yet less prominent role in course management and scalable design for e-learning. Additionally, 8% students reported using other niche platforms, showing some diversity in tool preference. However, 8% students indicated they do not use any collaborative tools, pointing to a gap in access or awareness.

AI Tools for E-Learning

ChatGPT is adopted most widely by student of public campus, while the adoption of other AI tools is very less.

Table 12

Use AI Tools for E-Learning

AI Tools	No. of Students/percentage
ChatGPT	97

MS Copilot	12
Google Brad/ Gemini	28
Character AI	15
QuillBot	20
Midjourney	7
Other Tools	15
No Any	2

Source: Field Survey, 2024 AD

Table 12 illustrates the use of artificial intelligence for e-learning. The result indicated ChatGPT as the most widely utilized AI tool, with 97% of students. Similarly, Gemini is used by 28% of students, ChatGPT is adopted by 12% of studetns, and the Character AI tool was utilized by 15% of students. QuillBot was adopted by 20% of students, tools like Midjourney were used by 7% of students, and other unspecified AI tools were used by 15%. The presence of students not using any AI tools was 2%, which reflects varying preferences and needs within the surveyed group.

Purpose of Using E-learning Tools

This study highlights the different purposes of using e-learning tools and its percentage.

Table 13

Purpose of Using E-learning Tools

Purpose of Using E-learning Tools	No. of Students/percentage
Take Classes	47
Access note, videos and other educational document	68
Examination	42
Collaboration	45
Other Purpose	18

Source: Field Survey, 2024 AD

Table 13 shows the data on the different purpose of using the e-learning tools. A significant number of students, 68%, use e-learning platforms primarily to access notes, videos, and other educational material and 47% student use for taking classes online. Additionally, 42% of them utilize e-learning tools for examinations which indicates tools adoption in facilitating assessments and quizzes remotely. Similarly, 45% of students use it for collaboration purposes and 18% for other purposes.

Satisfaction on E-learning Methodology and Tools

This study highlights study on satisfaction level of students on e-learning methodology and tools.

Table 14

E-learning Methodology and Tools Satisfaction

Methodology	**1**	**2**	**3**	**4**	**5**	**Mean**
E-learning Methodology	1	9	34	49	7	3.52
E-learning Tools	1	3	34	54	7	3.64
Grand Mean						3.58

Table 14 shows the satisfaction levels students towards e-learning methodology and tools satisfaction of the community campus student. The mean satisfaction score for e-learning tools was 3.64, with the majority i.e. 58% of students expressed satisfaction and an additional 7% being very satisfied with it. In contrast, the mean score for eLearning methodologies was 3.52, with 49% of students satisfied and 7% very satisfied. A notable portion of students remains enough satisfied regarding both methodologies (34%) and tools (34%), indicating room for improvement. While very small number of students is dissatisfied or very dissatisfied with both cases.

According to the finding mean score of student satisfaction with e-learning methodology was 3.52 and their mean satisfaction with e-learning tools was 3.64. This suggests that students feel more satisfaction with the tools they use in e-learning compared to the e-learning methodologies adopted. Even though both mean scores are above the neutral midpoint, comparatively higher mean for e-learning tools indicates their significant contribution to improving the e-learning experience.

Method of Accessing E-learning Platform

This study highlights study on different method of accessing e-learning platform.

Table 15

Method of Accessing E-learning Platform

Method	**No. Students/percentage**
Mobile Application	78
Laptop/Desktop Application	73
Website	63

Total	100

Table 15 shows the different methods students use to access the e-learning platform. The result shows that the 78% of students relied on the mobile platform for access to the e-learning platform and resources. This preference points towards the convenience and flexibility of mobile devices for accessing educational content anywhere and anytime. In total 73% of students, closely following traditional computing devices, utilized laptops and desktop computer applications, highlighting these devices expanded and simplified e-learning interface. Similarly, 63% of students preferred not to use any application but to access it directly through the website using any device which shows that mobile and mobile applications have dominated as a medium for e-learning platform access. It may be more dominant with more powerful mobile applications, processors, and a drop in the price of mobile phones.

Use of Paid Software for E-learning

Table 16

Use of Paid Software for E-learning

Use of Paid Software for E-learning	Frequency
Yes	14
No	86
Total	100

Source: Field Survey, 2024 AD

Table 16 shows the use of paid software for accessing e-learning platforms and materials. Data on the use of paid software for e-learning reveals that 86% of students do not use paid solutions, while only 14% do.

Discussion

This section contains the discussion about the results related to e-learning methodology and tools.

E-learning Methodologies

The research results regarding participants' preferences for learning clearly indicate that hybrid learning options were the preferred choice for nearly all of the participants. Among the participants, vast majority indicated they preferred some type of hybrid learning which combined traditional classroom-based learning with web-based e-learning. This hybrid approach's popularity can be attributed to its ability to convert the traditional education system to a structure, interactive, flexible an easily accessible digital

learning platform (Qi & Tian, 2011). This underlines the increasing acceptance and reliance on digital methods and technologies, with face-to-face, traditional classroom-based learning still valued by some learners who prefer real interaction with teachers, but the least preferred, reflecting this choice. This result exposes the sift of student towards the flexible and technology friendly learning environment form a primitive classroom-based environment.

The study suggests that the students are using all three methodologies of e-learning synchronous, asynchronous and hybrid. The preference of students on the hybrid model suggests that student do not want a pure synchronous or asynchronous practice this reflect the principal of the Community of Inquiry model (Garrison et al., 2001), which advocates for a combination of synchronous and asynchronous activities to create an effective learning environment. This insight suggests educational institutions in designing more effective and efficient learning program that aligns with learner preference.

Methodology of E-learning Used

Among the different methodologies used by students for e-learning purposes, LMS based learning is the most popular. LMS are helpful in organizing and delivering instructional content, tracking progress, and facilitating communication between teachers and learners. The multi service platform provided by the LMS efficiently manages the course and resources. LMS provides the features like course management, communication, assignment, content sharing, tracking collaboration and feedback with different tools. According to Emmamoge et al. (2023) LMS platforms encourage active student engagement by promoting concept through interactive tools like quizzes, discussion forum and multimedia resources. This feature helps student focus their academic goals by providing structured, self- regulated learning, self- critical thinking enhancing learning environment.

The other popular e-learning methodology was collaborative learning. Many popular collaborative tools like messengers, MS Teams, google workspace has made it more accessible, user-friendly and demanding. According to (Scager et al., 2015), collaborative learning enhancing the learning experience through teamwork and shared knowledge and renounced for its interactive nature. This methodology increases the sense of working with community and solving problem collaboratively making it highly effective in e-learning environments.

The flipped classroom methodology popular due to its ability to make classroom time more productive, where students review content outside of the classroom and engage in interactive activities during the class. According to Bishop and Verleger (2013), this methodology promotes active engagement, promoting deeper understanding. Flipped has been moderately accepted as the e-learning methodology by the students of the community college in Nepal. It which involves reviewing content outside of class and engaging in interactive activities during class, was well-received for making classroom time more productive.

Student of community college has less utilized the benefit of gamification. According to (Khaldi et al., 2023) the potential benefits of making learning more engaging through game features. Though gamification learning was underutilized it is one of the most effectiveness in the teaching learning and may require additional development and integration to improve its effectiveness.

E-learning Tools

This section contains the discussion on the results about the use of e-learning tools.

Social Media Tool for E-learning. The result showed that the YouTube was the most popular social media for the e-learning. YouTube contain vast library of instructional video with the feature of simplicity of use, and accessibility for free. Facebook usage for e-learning demonstrating its importance in fostering communities and information exchange. Study about the popular social media for e-learning by Liu (2010) found that the three popular social media tools are Facebook, Wikipedia and YouTube, and the reasons for using social media tools are for social engagement, direction communication, feedback mechanism, and relationship building. The moderate usage of TikTok and Pinterest, LinkedIn, and Pinterest indicated their distinct niche applications in professional growth, idea sharing, and creating compelling short-form content. Twitter was used by, indicating its role in quick updates and networking, while Coursera and Skillshare were the least used, possibly due to their more specific educational offerings. This distribution underscored the predominance of video-based and social interaction platforms in e-learning, while also showcasing the diversity of tools employed by learners.

Content Creation Tools. Students use content creation tools for preparing assignment or education material. Microsoft Office was the most popular option, demonstrating its wide range of features and comfort. Google Workspace came in second, which is indicative of its cloud accessibility and collaboration features. Moderately, of student reported using WPS Office, indicating its popularity as an MS Office substitute. Students also used other tools, indicating a range of specialized applications. A small percentage of students, used like Articulate Storyline 360, Ispring Suite, Elucidat, and Easy Generator respectively. This distribution highlighted the reliance on well-established office suites for e-learning content creation, with some exploration of specialized e-learning tools.

Knowledge Sharing Platform. LMSs tools like Google Classroom, MS Teams, and Zoom are the most popular knowledge-sharing platforms among the students of public campuses. LMS provides user ability to organize and deliver educational content providing functionalities such as content scheduling, tracking student progress, interactive assessments, and collaborative tools, and are freely available to use to some limit. Based on preliminary observation, teachers of public campuses use freely available LMS and encourage students to use them. With a large number of students using social media, social media-based e-learning tools like Facebook Messenger, WhatsApp, and LinkedIn are also commonly used. Adaptation of these tools highlights the importance of communication and collaboration in e-learning.

Video Conferencing Tools. Zoom, Google Meet and MS Teams were the most popular e-learning video conference tools among the student of community school. Similar finding was shown by Sapkota (2020) on the study during COVID19 to use of e-learning by student of Nepal. This shows that video conferencing platform which were poplar during the COVID-19 are still the dominating tools. Minority of students not using these tools indicates some students are still unable to afford the e-learning devices or teachers of their program may not be using after post-COVID phases.

Collaborative and Interactive Tools. Research shows Facebook Messenger accepted by majority of student is widely used collaborative and interactive tool. A study by Pedroso et al. (2023) justifies the similar situation and clarifies the popularity of Facebook Messenger is due to its freely available features like facilitating collaboration, easy navigation, convenience to use. This tool is used for group discussion which fosters

teacher-learner communication increasing its effectiveness for synchronous learning classes, virtual classes, and real-time student engagement. Similarly, research shows Google Workspace and Microsoft Teams were moderately used by the students. Research by Martín-Herrera et al. (2021) showed that Google Workspace are popular due to its interface and wide variety of services like Meet, Gmail, documents, classrooms and presentations. This tool provides features for supporting group projects and real-time collaboration between students. However, very few students are not habituated with these tools indicated pointing to a gap in access or awareness.

AI Tools for E-Learning. AI is ruling all sectors, and result shows that AI has starting showing its superiority. The result indicated ChatGPT as the most widely utilized AI tool. ChatGPT is well known for its capabilities for generating human-like text and providing interactive responses, best suited for education. Sok & Heng (2023) studied on use of ChatGPT for education and research which highlights its high popularity among student and teacher. Their investigation highlights ChatGPT's capabilities in aiding education, creating content, translating languages, providing tailored responses, as well as giving personalized feedback. Moreover, the study highlighted greater use of the tool for providing writing assistance, brainstorming ideas, as well as enhancing productivity in academics. Similarly, use of AI tools like Gemini, Quillbot, Copilit and Character AI indicated student highly dependence on AI tools for the learning purpose. These AI tools are used for variety of task for learning. The highly use of AI tools indicated its growing popularity. But access use and over dependance of the AI for education purpose may hinder the student's ability to think critically and develop independent learning skills (Zhang et al., 2024).

Method of Accessing E-learning Platform. The finding indicates that most students from the community campus used mobile devices to access the e-learning platforms and resources. This suggests the reason behind this trend is the easy access and flexibility offered for educational content through the mobile devices (Eom, 2022). Other students, closely following traditional computing devices, utilized laptops and desktop computer applications, highlighting these devices expanded and simplified e-learning interface. Similarly, some students preferred not to use any application but to access it directly through the website using any device which shows that mobile and mobile applications have dominated as a medium for e-learning platform access. It may be more

dominant with more powerful mobile applications, processors, and a drop in the price of mobile phones.

Use of Paid Software for E-learning. Data on the use of paid software for e-learning reveals that majority of the students do not use paid solutions. This dominating number of students using free or open-source tools indicates that the students of community colleges favored the free or open-source platforms. As described in the paper by Ozkan (2011), emerging technologies and potential developments could shape the evolution of open-source tools in education so student will have more features available making free and open source more reliable for e-learning purpose. The minority who uses paid software is for enhanced features, reliability, and support that might not be available with free alternatives. The other reason for less access to freeware may be due to expensive software, payment problems, or the availability of the required features in freeware.

CHAPTER V

Conclusion And Implications

This chapter includes conclusion and implication based on the findings of the study.

Summary

The research on e-learning methodologies and tools accessed by students at community campuses in Nepal provides crucial conclusions and implications for the country's educational landscape. It indicates that e-learning has been widely adopted by students at community campuses. The research led to the conclusion that students had a

clear preference for a hybrid learning model that integrates e-learning with traditional classroom pedagogy. The study identified several e-learning methodologies. Synchronous and asynchronous modes were almost equally favored, with hybrid methodology was the most demanding among the students. Other e-learning methodologies were flipped classroom, adaptive learning, gamification, collaborative learning, microlearning, and LMS-based learning. This variety of methodology aims to enhance student engagement, motivation, and overall learning outcomes. Among these, collaborative learning, flipped classrooms, and microlearning were the most commonly employed methodologies.

The research also identifies various e-learning tools across multiple categories. Google Classroom is the most widely used LMS, while tools like Moodle, Canvas, Blackboard, Veda, and E-School are less utilized in the context of Nepalese community campus. YouTube and Facebook emerge as the most popular social media tools for e-learning, while Microsoft Office and Google Workspace are the leading content creation applications. Students frequently use social media and collaboration platforms for sharing e-learning content, with Zoom being the most popular video conferencing tool, followed by Facebook Messenger and Google Meet. Additionally, Facebook Messenger, Zoom, and Google Workspace are the most commonly adopted collaborative tools among students of community campus. The study also notes a growing use of AI platforms, particularly ChatGPT, for educational purposes, indicating the increasing influence of AI in the future. Students use e-learning tools for accessing notes, videos, educational documents, attending classes, taking exams, and collaborating. Notably, the majority of students prefer international e-learning tools and platforms over local ones, often opting for free platforms and tools.

Conclusion

The study on e-learning methodologies and tools adopted by students of public campuses in Nepal concludes that there has been a gradual shift of the education system from classroom-based to ICT-enabled teaching and learning systems. This shift was prominent following the COVID-19 pandemic, which compelled students and institutions to find different modes to continue the education delivery. However, initiation and institutionalization of e-learning at public campuses remain limited due to infrastructure, technological, and socio-economic challenges. E-learning initiation is not done from the public campus in Nepal.

Though the student has taken individual effort to engage with the e-learning. Students have adopted asynchronous, synchronous, and hybrid learning approaches for accessing educational material and participating in collaborative work. Among the used video conferencing and social media tools, content creation tools are famous among the students. However, the majority of students are using the free version of e-learning, which may not provide the full range of features required for the e-learning.

Though as e-learning has established presence among the student of public campus of Nepal, it is still in developing phase and not yet fully institutionalized. It is essential to address the existing barriers to make e-learning sustainable, inclusive, and effective within Nepal's public higher education system. It is important to remove barriers to ensure e-learning is sustainable, inclusive and efficient within Nepal's public higher education. This also requires governmental and institutional strong policy directional investment in digital infrastructure, training of teaching staff, development of local content, and equal access for all geographic and socio-economic groups of students.

Implication

This research on e-learning methodologies and tools in Nepalese higher education holds several significant implications. Following are the implications categorized related to policy, practice and further research.

Policy Related

The finding suggests that the students were ready to adopt changes in the education system. It indicates the need of technology embedded classroom and teaching learning methodology. To adopt with this shift of the pedagogical trend proper, ICT policies need to be developed along with the guidelines and regulation for the e-learning. The policy must focus on equal access of technology and diverse learning style of the students. Similarly, policymakers must also emphasize on improving internet accessibility, investment in technology and also establish standard for the e-learning content and platform. Additionally, community campus must be equipped with the broadband internet, ICT technology in classroom and also in pedagogical methods, ensuring that digital resources and tools are readily available and effectively utilized within the educational framework. These steps will ensure that both traditional and modern methods of instruction are effectively integrated into the education system.

Practice-Related

The finding suggests that to integrate e-learning into the institution, internal regulations should be formulated, which can be consistently followed in the use of digital tools and techniques in various courses. Along with good faculty support and training, a structured program in digital pedagogy, online assessments, and Learning Management Systems (LMS) is necessary to improve teaching effectiveness. Gradually, all classrooms should be fitted with necessary ICT tools such as projectors, digital boards, and stable internet connectivity to facilitate blended learning. Necessary curriculum enhancements should include e-learning elements maintaining a ratio between conventional and digital teaching to best suit various student learning styles. The institution needs to conduct workshops or introductory sessions wherein students can get acquainted with e-learning tools and digital resources. In addition, the creation of a structured feedback system will give students and faculty an opportunity to regularly provide inputs on the challenges and prospects for improvement toward an ongoing fine-tuning of e-learning strategies. These steps will construct a supportive and structured digital learning environment that aids both professors and students in making e-learning more viable and effective within the institution.

Further Research Related

Future research can be done to explore topics related to the incorporation of e-learning on community campuses. Another topic may be examining the long-term impacts of blended learning models on student success. Additional areas for further study could include the effectiveness of specific e-learning tools and methodologies included in the research. In other educational contexts, the impact of e-learning on student mental health and well-being would also be a trending topic of research. Research on the role of artificial intelligence in personalized learning and research on how e-learning methodologies affect various student performance and achievement would also be the current trends of study. Similarly, identifying different learning styles that would be beneficial for the student would provide deeper insights into optimizing e-learning practices for diverse student populations.

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Use of E-Learning Methodology and Tools for learning by Students in Sukuna Campus

Appendix

Appendix I: Google Form Questioner use for survey

What is your College Name? …….

Gender

a. Male female c. Others

Which Educational Program do you belong to? …….

Which semester/year do you belong to? ……

Which type of learning do you prefer?

a. Traditional classroom-based learning

b. Modern E-learning

c. Hybrid of Traditional & Modern E-learning

Have you participated on eLearning where you can access educational material anywhere any time?

के तपाईंले पायक पार्ने समय र स्थानमा शिक्षण तथा शैक्षिक सामग्री पहुँच गर्न मिल्ने ई-शिक्षा मा सहभागी हुनुभएको छ ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on eLearning in live class or online sessions?

के तपाईं लाइभ क्लास वा अनलाइन सेसनहरूमा सहभागी हुनु भएको छ ?

Ex. zoom, Google Meet

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Which way of E-learning do you prefer?

a. Only live session and or online session (लाइभ क्लास वा अनलाइनमा मात्र लिन मिल्ने)

b. Any time anywhere access e-learning (पायक पार्ने समाय र स्थानमा लिन मिल्ने)

c. Both 1 & 2 (दुबै)

Have you participated on eLearning where student learn independently at home before they engage in the interaction in the classroom?

के तपाईंको शिक्षकले पहिले घरमा ईन्टरनेटको साहयताले पढ्ने अनि कक्षामा बहसमा संलग्न गराउनुभएको छ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on eLearning where learner learn according to their needs, preferences, and pace, and platform provides content, assessments, and feedback to learners based on their strengths, weaknesses, and learning goals?

के तपाईं आफ्नो आवश्यकता , क्षमता र गति अनुसार शिक्षा लिन मिल्ने प्लेटफार्म चलाउनु भाएको छ ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on eLearning with game-like features such as points, badges, leaderboards, rewards and progress tracking?

के तपाईंले गेम जस्ता विशेषताहरु भएको इ-शिक्षामा भाग हुनुभएको छ ? विशेषताहरु जस्तै अंक, बैज, लिडरबोर्ड, पुरस्कार र प्रगतिको ट्र्याकिंग भएको ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on learning where students work together, share knowledge, achieve common goals?

के तपाईं साथिहरुसङ्ग एउटै लक्ष्य हासिल गर्न, साथिहरु सङ्गै काम गर्दै, ज्ञान आदान प्रदान गर्नु पर्ने शिक्षामा भाग लिनु भाएको छ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on learning where a big issue is taught through small parts using any of videos, podcasts quizzes, or interactive modules?

के तपाईंको शिक्षकले ठूलो समस्यालाई सानो-सानो भागहरूमा शिकाउन हाजिरिजबाफ , भिडियो, पडकास्ट, वा इन्टर्याक्टिभ मोड्युलहरू प्रयोग गर्नुहुन्छ ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Have you participated on eLearning using Learning Management System (Ex. Google Classroom, Moodle) software are used?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Are you satisfied with the current styles of eLearning methodology during teaching/learning process?

हाल तपाईले प्रयोग गरिरहनु भएको ई-शिक्षा पद्धति प्रति सन्तुष्ट हुनुहुन्छ ?

a. Very Frequently

b. Frequently

c. Occasionally

d. Rarely

e. Never

Section 3: E learning Tools

Which Learning Management Software have you used? (you can select multiple option)

- ☐ No Any
- ☐ Google Classroom
- ☐ Moodle

- ☐ Canvas
- ☐ Blackboard
- ☐ Other Software
- ☐ E-School
- ☐ Veda
- ☐ MySecondTeacher
- ☐ Vurilo
- ☐ Other Software

Which social media platform do you use for learning purpose? (Multiple Option can be selected)

- ☐ No Any
- ☐ Facebook
- ☐ YouTube
- ☐ LinkedIn
- ☐ Coursera
- ☐ Skill Share
- ☐ Tik Tok
- ☐ Twitter
- ☐ Pinterest
- ☐ Other Software

Which Software do you use for the content creation for e-Learning? (you can select Multiple option)

- ☐ No Any
- ☐ MS Office (MS word, MS PowerPoint etc.)
- ☐ Google Suite (Google Docs, Slides, Sheets):
- ☐ Articulate Storyline 360
- ☐ Elucidate
- ☐ iSpring Suite
- ☐ WPS Office
- ☐ Easy generator
- ☐ Other Tools

Which platform you use to share your knowledge on any eLearning platform? (you can Select Multiple)

- ☐ No Any
- ☐ Blogspot, WordPress, Drupal (CMS)
- ☐ Google Drive, Dropbox, OneDrive
- ☐ Google Classroom, MS teams, Zoom
- ☐ YouTube / Vimeo other Video Hosting and Streaming Platforms
- ☐ Facebook, LinkedIn, WhatsApp Group and other social media and Collaboration Platforms
- ☐ Other Tools

Which video conferencing software do you use? (you can select multiple)

- ☐ No Any
- ☐ Zoom
- ☐ Google Meet
- ☐ MS Team
- ☐ Facebook Messenger
- ☐ Skype
- ☐ Other Platform

Do you use collaborative tools for doing group work on documents with your classmates online? (you can select Multiple)

- ☐ No Any
- ☐ Google Workspace
- ☐ Microsoft Teams
- ☐ Blackboard
- ☐ Zoom
- ☐ Facebook Messenger
- ☐ Others tools

Which Artificial Intelligence tool you use for Learning Purpose? (you can select Multiple)

- ☐ No Any
- ☐ Chat GPT
- ☐ Microsoft Copilot
- ☐ Google Brad / Gemini
- ☐ Character.AI
- ☐ QuillBot
- ☐ Midjourney
- ☐ Other Tools

What purpose you use e-learning platform? (you can select multiple option)

- ☐ Take Classes only
- ☐ Distribute notes, videos and other education document online
- ☐ Examination
- ☐ Collaboration
- ☐ Other Purpose

Are you satisfied with the current tools you are using for e-learning?

a. Very satisfied

b. Satisfied

c. Enough Satisfied

d. Dissatisfied

e. Very Dissatisfied

Which Nepali e-learning Platform have you used? (You can Select Multiple)

- ☐ My Second School
- ☐ Sekai Chautari
- ☐ Kullabs
- ☐ Midas
- ☐ Neema Academy
- ☐ Mero School
- ☐ Nimble EdTech
- ☐ MeroSiksha

- ☐ Hamro Academy
- ☐ E-Paath
- ☐ Other Software
- ☐ None

Section 4: Miscellaneous

Which way you access to e-learning platform? (you can select multiple option)

- ☐ Mobile Application
- ☐ Laptop / desktop Application
- ☐ Website

Do your institute have owned a software that can control classes, give assignment and can take exam?

a. Yes b. No

Have you ever used paid software for learning purpose?

a. Yes b. No

How would you rate your overall experience with e-learning on a scale of 1-5, with 1 being the lowest and 5 being the highest?

a. 1 b. 2 c. 3 d. 4 e.5