Scoping two-way benefit of e-learning: Prospects of earning and learning in Nepal

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Abstracts

The subject discussed in this article is how people are being facilitated and better facilitated by an appropriate learning environment with the help of ICT. The issue is whether recent eLearning developments are beneficial in creating and adding value to a large group. The answer is with the help of the insight of the first learning mode, which began as distance mode along with some technologies. Present e-learning is the final requirement, and much more is needed. Making ICT accessible and practicable to people dispersing in different fields and areas can be exciting, so this study is forward. Can the unnecessarily used time, effort, and other physical resources in the name of receiving education and training be reduced and transferred to the relevant and meaningful directions of the learner's life? This article analyzes the possibility of addressing them as those interested in learning from far-distant places. The study uses the literature on e-learning and secondary data. The finding pertains to the possibility of occupational learning to the masses of young adults aged 15 to 45 in agriculture and operating skills to be delivered. It implies designing a suitable learning environment by applying a humanistic approach. The limitation is focusing on occupational education to mass at their place and pace.

Keywords: *e-learning, distance learning, occupational education and professional education*

Background

Can a country realize its full benefit until it utilizes its people resources to their full extent? Such people are spread in the country in different sectors with differing occupational activities, and their total integrative activities are the national economy measured in terms of GDP, GNP and National economy. Does it not matter if a person is left to develop, as they are a part of the country's total integrative efforts? Can the country not see them as a learner needing the proper address from the country to develop them to the most potential way and provide them the opportunity to contribute to the country?

Why must a learner of any occupation and profession wander about different destinations coupled with the unnecessary use of resources? Can not such resources be transformed into meaningful aspects of a learner's life and reduce many social and economic costs like separation costs (separating from the family) and financial costs (spending money a thousand times rather than the required by the particular education)? Can not a learning platform be made at a residential place where the learner can reduce all their burdens and increase their amenities? Many eminent theories, like multiple intelligence theories, do not relate to learning, which aims to make the learner an extraordinary performer in life with many activities like transportation, separation,

Online or e-learning can shift the learning environment to the place of the learner, saving time, effort, and costs to receive the same level of education

taking financial burdens, installing inappropriate structures and disturbances of regional distribution of the people and the resources. Why should a good learning platform not be developed at the learner's place so that every amenity will not be centered on a few palaces, leaving a balance of distribution of the populations and damaging the ecosystem? Traditionally, the pattern of education was that learners had to go to schools, colleges, universities, or libraries to learn, and this way, an essential part of their time the learner gives just for traveling and residential arrangements. The learner's anxiety could negatively impact the overall productivity of life, so what the human side can receive is killed, and the proportions of working moments they lose for no genuine reason. An essential part of contributions and creativity in a person's life collapses due to the time and effort required by the person in the institution, college, and University. Is it not the time to think over the existing education system, indulging lots of people's resources in the name of education but for little or nothing? How can the loss of an essential part of the learners' lives going in vain be compensated? Can the present education system be reimbursing these multifarious losses? In many developing countries, people must start their work from the beginning stage due to economic vulnerability and the absence of social security provisions.

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Older adults in most developing countries do not get any security benefits, so adults have to earn enough for their children to bring up and look after their old parents. If adults do not get support from the right education system at their residences, then their lives are costlier than their own lives. Their movements to different places in the name of education make the whole family members suffer. In this periphery, this article tries to assess eLearning to make more contributions to human life for their learning and earning.

In Nepal, most people have started to leave the country to learn and earn money abroad. They get 3-D jobs, and some learning opportunities are side by side. In the abroad, their life becomes even more complex. To pay the tuition bills they work, they work hard. They live on a credit card, and every month, they have to pay the bill; the bill accumulates so much that they cannot return to the country and the whole family because of survival.

Research questions

The researcher wants to infer how e-learning can help address the mass of differing occupations in Nepal and help them learn and earn purpose.

Objective

This article traces the history of the development and application of distance and online education and explores the possibility of online education in Nepal.

Methods

The article reviews the literature on models of distance learning modes that pioneers have successfully developed worldwide. The insight was designed from the development of e-learning and inferring how the practice can be helpful in the country to address the masses of Nepal using secondary data sources.

Review of literature

The review tried to link how people of different occupations, along with universities, dedicated professors, and educated people, found various approaches to distance learning to serve the education needs of the people. It also reviewed the transformation of distance mode to present e-learning and become helpful to different occupations.

The first distance mode in the world appeared to impart vocational education that provides learning and earning opportunities. The practical education through the distance mode approach started from the period of stenography in 1840 (Keegan, 2021). It is called the 1840s stenography period. When there was no audio recorder to record the voices and speeches, correspondence was the means of learning the distance places. Isaac Pitman, the teacher of Wotton-under-Edge, the market town in England, used to teach his students shorthand, known as Pitman Shorthand. Teacher Isaac Pitman used mail service to teach shorthand (stenography) to his students (Leerbeleving, n.d.). Students were to submit their assignments to Isaac Pitman through the mail. At that time, secretaries, journalists, and other professionals learned their essential skills by sitting in emails with residents. The techniques of taking notes and learning shorthand mean taking notes of the speeches delivered by leaders, administrators, secretaries, and journalists. When they reported, they transcribed the shorthand script to make them understandable for the audience. This example gives insight into the fact that distance-mode learning is not new. At that time, presently known as developed countries of the world, people started teaching without making their houses and residents leave.

In 1924, after 84 years, the automatic teacher was another consecutive innovation in distance mode. The credit for designing the present method of online testing and teaching based on presenting a question with four choices goes to Educational Psychology Professor Sidney Pressey of Ohio University (Bouchrika, 2023). The teachers used the automatic teacher, designed like the present-day computer, to give the students multiple-choice questions and expect correct responses. After receiving the correct answer, it moved to the second question. It was like the iterating and looping procedure of present-day computer programming. The machine also was known as an automatic machine.

After 30 years, in 1954, GLIDER became another innovation. GLIDER is a teaching machine by Harvard Professor BF Skinner that allows programmed instruction in schools and colleges(Bouchrika, 2023). GLIDER is a box containing a series of questions from simple to complex; the students roll the rolling lever and get one question in the window. The students were to write the answer following the instructions given. When the machine gets the correct answer, it proceeds to the second step, the difference

How can educationists make e-learning to address differing people ?

Explores the possibility of e-learning congenial to learning at the place of the learner

Inferring design of e-learning to make suitable to identified major occupation and age group

How does literature review help to convince distance learning mode practices and the success geared by universities in advanced countries ?

between Skinner's machine and its use for this purpose. Pressy designed the machine to test the students, and Skinner designed it to teach them.

Radio programs were the next innovation for intended online education due to the possibility of access to many people across broad areas. It made mass education possible, encompassing large groups of learners. Very rapidly, radio programming became popular in Europe to educate the people at large in a variety of disciplines. In this period, prominent educational institutions and radio broadcasting studios jointly and singly organized programs to address the farmers and people of different occupations. The institutions faced the challenges of making teaching and learning more appealing and used as great devices(Akpan, 2008)). Several radio programs came out to teach subjects like religion, politics, current events, economics, and science. After the '60s, radio programs became popular in teaching and learning, and the programmer named distance mode of learning. Studies have found that radio is the most popular broadcast medium used for teaching in times of crisis worldwide. The studies conducted by Owuamanam, T. O. & Alowolodu, O in 2010, demonstrated that radio is the cheapest and most affordable technological means of information dissemination.

After 1960, educational psychologists defined the term program instruction, and computers became an aid for programmed instruction, teaching, and learning. Program instruction means a sequence made by the programmer to present things to make the learners learn fast. The credit for the program instruction goes to Harvard Professor BF Skinner and Sidney Pressey of Ohio University. That program instruction added many features to enable the programs to connect two or more places and take the form of present-day e-learning. Daniel Alpert and Don Bitzer worked to develop the model further and named the new model Programmed Logic for Automated Teaching Operations(PLATO) (Akpan, 2008). PLATO became the computer-based tool of teaching by linking two computers in two different places, termed networking, a developed form of which is the internet. The University of Illinois designed for the students, but the fruits of this invention speeded in many areas. In four decades,

assignments through emails and message boards became so popular and took the form of today's online learning.

Some professionals enquired about the use of media to make effective online learning. Akpan (2008) wrote that media psychologists, engineers, and professors developed the teaching machine jointly. In this connection, two professors of psychology from Standford University, one Patrick Suppes and another Richard Atkinson, also began teaching mathematics and reading with computers based on the knowledge of the interconnection system of computers and teaching machines so far developed over a couple of years, in 1968, the University of Alberta's Department of Medicine became the first University to offer online courses. IBM 1500 instructional system became the pioneer in implementing classes from 32 workstations at a time. In the history of online classes, within a short period, the University organized courses for 20,000 students through 17 classes using the IBM 1,500 instructional system. In another way, it can be termed the "first formal and declared online learning in the history of the eLearning system(Akpan, 2008).

DARPA (Defense Advanced Research Projects Agency) developed the Advanced Research Projects Agency Network (ARPANET), which is today's internet. Initially, the Defence Department of the USA established it as the United States Department of Defense's Advanced Research Projects Agency (ARPA). DARPA started online education(Akpan, 2008), covering vast areas with secured protocols in 1969.

In 1976, the UK began Internet-based courses, for the first time, real-time teaching with programs designed and teleconferencing different countries of the West. For instance, the UK's The Open University of the UK began its first online classes through CICERO (Roman statesman, scholar, and writer(Keegan, L.2021). The courses were to be on credit hours one hour per week) and Cyclops whiteboard system (a combination of some audio-visual devices, used to hear, talk and see) was like Skype or Zoom of the present day.

Universities and institutions of the West established community colleges in the name of community colleges in the 1970s, with many centers, known as mini campuses, to focus on offline self-directed

education. Community colleges run the programs both online and offline. These centers needed computers to run programs. Apple and Bell & Howell opened the Apple Education Foundation to provide computers and money to the software designers and developers required for online education(Tamm, 2019). In the 1990s, they named the Learning Management system (LMS) to the program instruction using the software. Virtual environments gained popularity when people started owning personal computers that could do several functions by sharing information. At that time, Apple's Macintosh 128K was a popular personal computer with ample functions for online education. So, people started learning from home.

The 2000s is the rise of the Massive Open Online Course(MOOC). After 1990, many schools opened online courses, and it speeded up. Geographical distances from the regular school became the main reason for online courses. Many more students took interest in admitting to online classes for other reasons, not because of geographical distances. Such reasons are learners' choice of time to be ready for learning, interest in education and earning by utilizing time off.

Schools and universities designed and developed different learner-friendly software as their learning management system. Within 1995, the learning management system gained popularity, and its popularity has risen much even today. These were capable of monitoring the assignments, attendance, and studies. Such software was also capable of testing, grading, commenting, counseling, collecting fees, and providing learning facilities.

Online education became very popular very quickly. The evidence is the Blackboard. Western companies like Blackboard use LMS to provide education, mobile communication, commerce software, and other related services to academic professionals, businesses, and government institutions. The Blackboard supplied software to several thousand schools and enterprises in most countries.

Researchers and educators started advocating eLearning in seminars and workshops. For instance, in a CBT Systems seminar in 1999, Elliot Masie explained the term eLearning and the e-learning techniques.

eLearning is taking shape with the development of computers, internet, and peripheral parts. Now, every person has a mobile, tablet PC, laptop and desktop PC with wireless connection facilities. Every office and house has installed these. eLearning has taken the shape of learning facilities for children from 2 years to older in different types of education: formal, non-formal and informal. No organizations, such as businesses, society, and government, escape from it.

One can conclude that society needs many things regarding educating its members' diversified potentials by entering education programs into them. Every year, billions of individuals with potentialities go abroad for study and work. Many foreign universities mentioned above embrace them and develop them rapidly. Their native country should bear the loss of individuals who are the backbone of national development(Pappas,2017).

Today, even regular school education in the West is gaining popularity due to online education. The research conducted by the Pew Research Center in October 2020 explained it. The research center is an information center for social issues, public opinion, and world demographic trends.
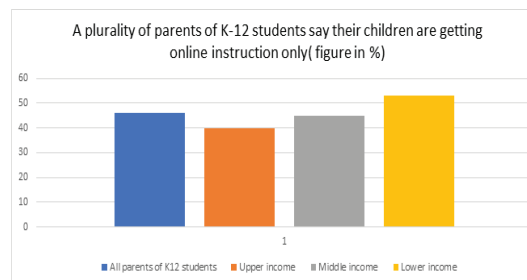

Figure 1: Share of parents with K-12 children entirely on distance learning (US)
Source: Pew Research Center, October 2020

Success evidence of universities imparting online education

In Nepal, some India-based universities are operating online education. For instance, Indira Gandhi International University (IGNOU) is the one. Others are Amity University in Online mode. Sikkim ManipalUniversity is operating in Distance Education mode. Many colleges in Nepal and outside have started providing their degree programs during COVID-19.

Distance education answers the strict need for life. Look at the top universities worldwide that could help one advance one's professional life without disrupting one's professional and personal commitments. These universities offer

Education with distance education mode appeared in Nepal showed success in addressing two important occupational groups: farmers and teachers

Learners are the source, and exercises to help them and improve continuously are the prime activities in eLearning

programs that might interest you, from graduate, postgraduate and doctorate programs to short courses.

The esteemed Harvard University in America now also offers more than 200 courses online via distance education. The University builds and distributes many types of materials to encourage to learn. Demanding subjects of online learning are related to general management, English, computers, public administration, etc.

Boston University is another respected American university that is currently offering excellent distance education courses. Apart from undergraduate to doctoral level courses, various non-credit professional courses are also available.

Indira Gandhi National Open University, Founded in 1985, claims to be the most extensive University with millions of students in India and three dozen countries soon due to its open university mode. It runs 310 degree programs in science, arts, social sciences, commerce, and information technology through 21 schools.

Open University of Catalonia, Spain, came in 1994, and even in its new period, it boasts 60,876 students. They offer over 1000 degree programs up to doctoral level in three different Schools, including Open Programmes.

University of South Africa (Unisa), an international university, runs distance courses for more than 250,000 undergraduate and graduate students through its half-dozen colleges. Unisahas campuses in Pretoria and Florida, Johannesburg, South Africa, and numerous contact centers abroad belong to this University. It also has mega university status. The University came in 1873 and, in 2004, merged with Technikon Southern Africa to form the new Unisa.

United Kingdom Open University appeared in 1969 and now organizes approximately 2,50,000 students worldwide, with hundreds of undergraduate and graduate programs. Its academic faculties and research centers are in Milton Keynes, United Kingdom.

The University of the Philippines came in 1995 as a campus of the Philippines. It provides education, management, and development studies, as well as information and communication studies.

The Open University of the Netherlands arrived in 1984. At this University, students can study academic programs or select from almost 300 modular courses. Students can register for either a full-length grade program or modular courses,

meaning they can register for two modules only if they wish. This University offers computer science, learning science, environmental science, law, management, cultural science, and psychology programs.

The Open University of Hong Kong offers more than 100 postgraduate degrees, degrees, associate degrees, and sub-degree programs to its students, and it is determined to provide only high-quality education.

Thomson Rivers University Open Learning has over 20,000 registrations and offers approximately 55 degrees, diplomas,web-based, and imprint formats according to students' requirements.

The Open Polytechnic of New Zealand offers more than 100 subjects and 1200 technical and vocational training courses for higher professional and continuing education.

The Bangladesh Open University landed in 1992 after researching a new mode of education for many years. It already has over 2 million students and offers formal and nonformal programs through different schools.

The universities listed here are examples of some universities only. However, there are many more universities, colleges, and institutions of learning.

Distance Mode in Nepal

In Nepal, distance and online learning began as a radio education program to teach agricultural farmers from the establishment of Radio Nepal in 1951. The program runs seven days a week in the evening to educate farmers.

The second program is The Radio Education Teacher Training Programme (RETTP I) 1978 to train primary teachers.

The third phase appeared with various programs initiated by Tribhuvan University, like B.Ed. and M.Ed. education Faculty of Education. Following this practice, Kathmandu University and Purbanchal Universities began such programs.

The fourth phase showed up with a separate university named National Open University in 2016 to run different undergraduate and postgraduate programs in various subjects.

Instruction design for eLearning

Only materials such as the internet, computers, and their peripheral parts are not enough to enhance eLearning. So, it is essential to evaluate different e-learning designs that transfer knowledge from one part of the world to another and the equitable

distribution of technological output to each part of the world.

Conceptual framework
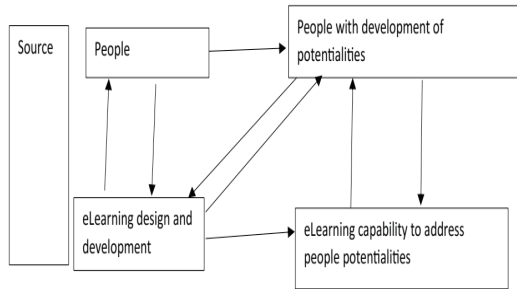
Source: Author's insight based on literature review

Figure 2: conceptual framework

The conceptual framework assumes that, after nurturing the person's aptitude in the correct environment, the person becomes a practical human resource. The learner finds the climate pleasant with the developed teaching-learning framework. The functional and specialized online learning program can bridge distances between the learner and tutors and minimize the opportunity cost of going abroad to learn. The country can create an atmosphere where learning and earning go together in such a situation. A farmer can get information through the Internet of Things(IoT) application. Farming places and residential houses can be enterprises for learning, like universities and schools.

Models of online learning

There are some major models of e-learning. The model first reads the people (learners) from the perspective of who they are and how the learning will occur in the given situation. Educational experts and psychologists have developed several models. Some of these are ADDIE, SAM, Dick and Carey Systems Approach Model,

The study follows the needs of people in different occupations.
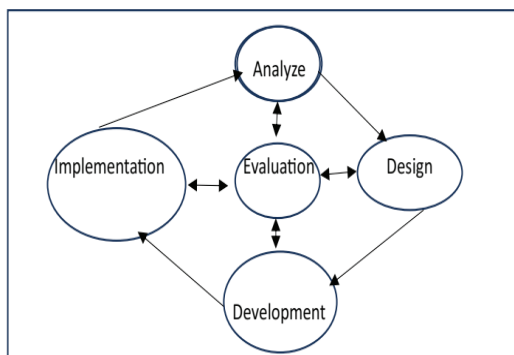
ADDIE

Figure 3: ADDIE Model

Analysis, Design, Development, Implementation, and Evaluation is a model of eLearning that includes elements like analysis of the needs of the people, including identification of a combination of needs that an education program addresses. The individual learner's needs have many facets: personal needs, social needs, economic needs, and national needs. The design of the eLearning includes curricular parts of the eLearning. A curriculum provides learning objectives, learning materials, delivery methods, and learner evaluation. The third component of the ADDIE model is material development for teaching-learning.   Implementation of eLearning involves activities like using the software to teach appropriately at the right time for the intended students. And evaluation embraces the activities to know the successful operation of the program and student achievement from the eLearning. This step helps the programmer take action in the program in the future to improve it. Figure 3 shows the sketch of this model.

This design is the most popular because of its simplicity, shortness, and clarity. Each part of this design requires deep attention. It is holistic and demands thorough reviews of each element used in the eLearning process (Pappas, 2007).

SAM

SAM means successive approximation methods in complete form. SAM is complementary to ADDIE; SAM intervenes when there seem to be flaws in the sequence of ADDIE. So once the SAM steps seem to be when ADDIE becomes problematic, little thought is put into improving. So, it is also called an alternative to the ADDIE model. For instance, eLearning takes a long time to complete a cycle from analysis to evaluation, and in between or in the middle of the process, SAM will be helpful if any unexpected actions are needed. It provides flexibility to the initial programs designed under ADDIE. The identified distinction between them is that ADDIE steps flow from beginning to end, whereas SAM stops at the errors and improves where possible. (Pappas, 2017)

Dick and Carey Systems Approach Model

Dick and Carey Systems Approach Model is a process-based model similar to ADDIE, elaborated extensively by character. Projet planners have clearly explained the eLearning. Entire projects have 9-step strategic plans, from goal setting to summative evaluation. Here are nine critical strategic steps of the Dick and Carey Model (Reiser,&Büsch,&Munzert, 2011).

•   Determine the learning goals and objectives
•   Conduct a thorough analysis
•   Research the audience to identify behaviors and traits
•   Set standards for task goals for each task
•   Develop ways to see the programs matched with learners' preferences and needs.

Some popular models in eLearning delivery are: ADDIE, SAM, Dick and Carey Systems Approach Model, Rapid Prototyping, and Rapid Instructional Design

- Create your Instructional Design strategy
- Pick appropriate eLearning activities and resources
- Identify improvement points through formative assessment.
- Measure desired outcomes against the standard set.

Rapid Instructional Design

Rapid instruction design follows a short and quick process to develop a learning teaching model. The Rapid Instructional Design Model aims for a fast-paced eLearning cycle when planners have no time to devote much time to its design. Rapid Instructional Design stands over four pillars: prepare, present, practice, and perform.

- Prepare: This step involves setting goals, informing the learners, assuring them about the program benefits, making the curriculum, preparing schedules, etc.
- Present: This step involves giving learners materials and demonstrating the skills intended to teach; learners must follow. This part describes the evaluation schedule for the learning experience. This part is delivering the content and demonstrating the skills from the trainer's side.
- Practice: This component allows the learner to practice in a simulated situation.
- Perform: Under this situation, the learners are given real-life situations or put into internship programs and are allowed to be interns. Rapid instructional design bridges the differences between online learning and real physical learning.

Rapid prototyping

This design takes full benefit of testing the design made to the people as pilot tests. Several cycles of the made model run and collect feedback until it does not give the intended performance. The program is ready only after the programmer and designer think it is doing what it ought to do.

The core concept of prototyping is to refine the developed framework through the development cycle, evaluate from the user's perspectives and bring changes when needed. The organization has sufficient experienced and technical staff to handle this.

Conclusively, the excellent model determines the success of online learning. There are many methods of designing models

1. **Result and Discussion**

The result and analysis infer which occupational group of the population and age group of Nepal are pivotal for online learning. Figure 4 and Table 1 relate to the number of people of different occupations who need continuous education and training. These occupations require further in-depth analysis for detailed analysis.

Similarly, Figure 5 and Table 2 depict the age group the country must address for online education. The Pareto chart analyses the two issues: which occupational group and which age group are prime to address by the government to benefit the maximum number of people.

The census data of Nepal(2021) shows that the principal occupations of Nepal are Armed forces, Managers, Professionals, Technicians and associate professionals, Office assistance, Service & sales workers, Skilled agriculture, forestry & fishery workers, Craft and related trades workers, Plant & machine operators & assemblers, Elementary occupations, and occupation not stated have different nature and challenges towards societies so the eLearning design to make these sectors capable also differs to a more significant extent. It is also necessary to carefully analyze these sectors and come up with consecutive articles. Separate methodologies are required to design the learning design. The Pareto chart in Figure 4 suggests that most people are involved in Skilled agri.,forestry& fishery workers(49.86%) and elementary occupations(20.38%). These two groups comprise (70%) of the country's population. Therefore, the government must consider this group to boost the country's economy. Table 3 shows that 63% of people are in agriculture, generating only 23.95% of GDP. Therefore, rural people involved in agriculture demand attention for learning and earning. The revenue generated is only 23.9%, which means 70% of people share 24% of earnings and survive. Therefore, e-learning must focus on e-learning and elementary occupations.

The result and discussions generate findings that the mass people of 14 to 59 years doing occupation of agriculture and elementary operating level need addresses from the government to derive maximum benefit from the eLearning

Table 1: Table showing population from 15 to 69 years

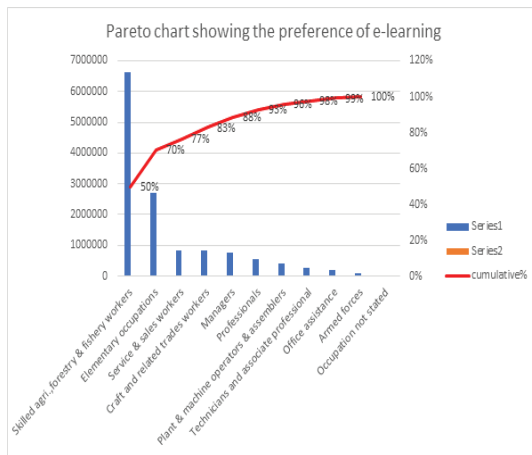| Occupation	Population	%
Armed forces	104669	0.79%
Managers	749189	5.63%
Professionals	560054	4.21%
Technicians and associate professional	274407	2.06%
Office assistance	194356	1.46%
Service & sales workers	845255	6.36%
Skilled agri.,forestry & fishery workers	6629648	49.86%
Craft and related trades workers	819797	6.17%
Plant & machine operators & assemblers	398870	3.00%
Elementary occupations	2710039	20.38%
Occupation not stated	10120	0.08%
Total	**13296404**	100.00%

Source: Population Census 2021

Figure 4: Pareto chart showing the need for online education to the working population of different occupations

Table 2 and Figure 5 present the age group of learners. The learning design considers the age group and the maximum number of working people aged 15 to 49, suggesting that these are 71% working population groups. Therefore, the government must design and provide online education to these groups.

Table 2: Adult education required to age 15 to 69 years population

| age group	Male	%	Female	%	Total	Commu-tative age group	commu-tative age group
15-19	1494523	16%	1471881	14%	2966404	2966404	15%
20-24	1301018	14%	1482042	14%	2783060	5749464	29%
25-29	1122242	12%	1337107	13%	2459349	8208813	41%
30-34	978976	10%	1168736	11%	2147712	10356525	52%
35-39	936931	10%	1104561	11%	2041492	12398017	63%
40-44	828493	9%	919339	9%	1747832	14145849	71%
45-49	687525	7%	748515	7%	1436040	15581889	79%
50-54	692494	7%	721358	7%	1413852	16995741	86%
55-59	537558	6%	538386	5%	1075944	18071685	91%
60-64	465962	5%	489642	5%	955604	19027289	96%
65-69	379689	4%	391929	4%	771618	19798907	100%
Total	9425411	1	10373496	1	19798907		
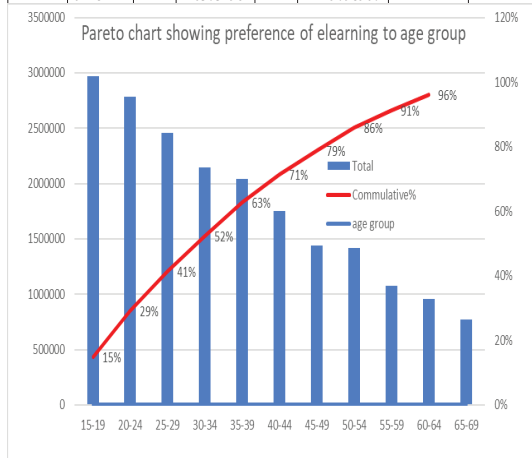
Figure 5: Nepalese population and housing census 2021

Source: Nepalese population and housing census 2021

Table 3: Distribution of population based on occupation and GDP

Occupation	Population	population %	GDP%
Agriculture	6629648	63%	23.95
industry	1218667	12%	14.29
Service	2727930	26%	61.41

Source: Economic Survey data adjusted with 15 to 69 years population

The adult education goal given by https://www.un.org/sustainable development / education/ is to provide vocational education to adults to reduce hunger to zero and eradicate poverty. The plan aims to reduce poverty by upgrading quality education. The report says, "Many of the world's population will remain poor, and their situation will not improve if people are excluded from the learning environment." The report says that the situation will be even more alarming if massive amounts are not allocated or provisioned in the budget to the rural areas for education and health.

Current situations requiring e-learning are:

1. 20 % of the people with jobs say they are employed in agriculture too, which proves that Nepal has not specified agriculture for development. 80 % in the non-agricultural sector are informally employed. (Central Bureau of Statistics, Nepal)

2. 60 % of SME workers have lost their jobs due to the COVID-19 pandemic (UNDP in Nepal 2020).

3. In totality, 28% of males have lost their jobs during COVID-19, compared to 41% of females. (UNDP in Nepal, 2020).

4. Communities' traditional jobs are not well-recognized and paid. The education system lacks teaching an entrepreneurial mindset to young people, there are no internship opportunities to gain experience, and society devalues self-employment and work like agriculture, community work, cleaning, etc.

5. Nearly 60% of youth and adolescents suffer inadequate training to work. 22% of females and 16% of males are either out of school or drop out before completing secondary education (National Planning Commission & Oxford Poverty and Human Development Initiative, 2018)

6. Almost eight million adolescents and youth have left the physical classroom because of the COVID-19 pandemic (UNICEF: COVID-19), and the loss has conservative effects.

7. Decent jobs have been far from reaching 63% of adolescents and youth due to inadequate skills (NIRT, 2016).

8. The education system is too theoretical and inadequate to help young people develop skills needed in life and the marketplace. Teachers lack the skills to teach sexuality education, critical thinking and problem-solving skills, and there are no platforms for young people to learn life skills (UNFPA, 2014).

9. 17% of adolescent girls aged 15-19 in Nepal are already mothers or pregnant with their first child, with higher numbers in rural areas. Suicide has increased by almost twofold in the last decade (Ministry of Health, Nepal; (New ERA, & ICF. 2017).

10. Nearly half of adolescents aged 15 to 19 years report experiencing anxiety and depression (Government of Nepal, 2018)

11. Since mid-March 2020, suicide among adolescent girls has increased by almost 40% during the four months of lockdown (UNICEF, 2020).

Conclusion

The widespread acceptance of Open and Distance Learning (ODL), known as e-learning these days by developed countries and established universities, has urged developing countries like Nepal to think about e-learning effectively. They were beginners and demonstrated success in many occupational and professional and occupational education. Present ICT has provided the chance to get the best education from the best universities while sitting at one's residence. E-learning can address a large number of students at a time to help them perfect specific skills online. In Nepal's case, the analysis shows that people doing agriculture and elementary skills are numbered more but getting less in return. People aged 15 to 45 are more numerous, and this is a productive age, so focus should be placed on giving high preferences.

Implication

The purpose of this study is to discuss the issues of how Nepal should design e-learning for the age group of 15 to 45 years in the areas of agriculture and elementary skills. Distance learning design must suit the learner, which is a difficult task. The implication of this research is to give direction to designing courses for learning for the different learner's age group and occupational areas. The next issue will be in that direction.

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