

Digital Transformation in Teaching and Learning at Tay Nguyen University, Vietnam

Dr. Pham Phuong Anh ^(1*), Nguyen Thien Tin ⁽²⁾

(1), (2) Tay Nguyen University, Dak Lak Province, Viet Nam

*Corresponding author: Pham Phuong Anh, Email ID: ppanh@ttn.edu.vn

ABSTRACT: Tay Nguyen University together with many universities across the country have implemented digital transformation in teaching and learning in the context of the new Covid-19 pandemic and the implementation of online teaching and learning also to deal with outbreaks. However, not only in response to the pandemic, but also online teaching and learning has become a popular trend in response to the demand for educational innovation. Through the practice of digital transformation in teaching and learning at Tay Nguyen University over the past time, it has shown certain advantages and disadvantages, so improving the quality of digital transformation in teaching and learning at schools is always a necessary requirement in the current digital and in Industry 4.0.

Keywords: digital transformation, teaching and learning, Tay Nguyen University, Vietnam

Introduction

Digital transformation is the process of transferring human activities from the real world to the virtual world in the network environment. The increasing participation in social life in all aspects of information technology has completely changed people and society. In the context of the fourth industrial revolution (referred to as the Industry 4.0 in short), digital transformation is an inevitable trend, thanks to the digital transformation of information that brings people more, more diverse, about space is gradually narrowed, time as well as money is saved more. The content of digital transformation is very broad and diverse, but shares some key contents including digital government (such as online public services, open data), digital economy (such as digital finance, e-commerce), digital society (such as education, health, culture) and digital transformation in key industries (such as agriculture, tourism, electricity, transportation). For Tay Nguyen University, due to the impact of the Covid-19 epidemic, this university decided to suspend concentrated learning, online teaching and learning was implemented for the first time from February 22 (ie the 10th of the Xin-Chou year) more than 8,000 students of the school will study theory online until March 5. Infrastructure

and equipment for online learning have been deployed by the school since the previous year, when the situation of the Covid-19 epidemic was complicated, the Ministry of Education and Training decided to let students and students leave school temporarily. Therefore, the implementation of digital transformation in teaching and learning initially does not cause difficulties for both teachers and students. On the other hand, the university's students in many provinces, cities and many localities take a break home to celebrate Tet, so this is a suitable plan to ensure the prevention of Covid-19 epidemic. Online class time is the official teaching time according to the timetable, fully meeting the conditions to ensure the quality of teaching. However, digital transformation in teaching and learning at Tay Nguyen University, besides the advantages, has certain difficulties and limitations, so it is necessary to have effective solutions associated with reality to promote and improve and enhance the quality digital transformation in teaching and learning at Tay Nguyen University nowadays.

Literature Review

Research related to the issue of digital transformation in teaching and learning at universities in Vietnam has had many research

works approaching from different angles, including some typical works as follows:

The research project of Think Tank Vinasia "Vietnam in the digital transformation era" in 2019 of the World Publishing House must be mentioned. The book is the enthusiastic sharing of THINK TANK VINASA group on the way to find answers to urgent questions. This is the group's enthusiastic effort to arouse and spread national pride, ignite the enthusiasm in every Vietnamese to be ready to commit, take drastic action, innovate, contribute to speeding up the country's digital transformation process, overcome challenges, seize development opportunities in the fourth industrial revolution, awaken the nation's potential, realize Vietnam's aspiration and build a prosperous country.

Mark Raskino Graham Waller, "Digital transformation to the core: Elevating leadership capacity for your industry, business and yourself" 2020 of Information and Communication Publishing House. In this book, the author gives many specific examples of organizations that have succeeded in being at the forefront of digital business and affirms that digital transformation starts with digital technology breakthroughs, but digital transformation It's not just digital technology, but digital transformation is accepting the new, so digital transformation is also a revolution in perception...

"Digital Transformation - 5 Stages of Deploying Digital Technology for Enterprises" by Lindsay Herbert, in 2020 the publisher of Information and Communication shows that the author has conveyed his own experience in leading change and innovation programs globally, as well as insights from experts and leaders from organizations as diverse as the International Organization for Conservation of Nature, the United Nations High Commissioner on refugees, American Cancer Society, International Federation for Human Rights, Harvard University, Morgan Stanley, Rijksmuseum and many others.

"Q&A about Digital Transformation" in 2020 by the collective authors Ho Tu Bao, Nguyen Huy Dung, Nguyen Nhat Quang, Information and communication publishing house. This work is an attempt to share the authors' initial perceptions and experiences on digital transformation. The

book is written in a question and answer format on digital transformation, breakthroughs of AI and digital technologies, digital government, digital economy and digital society.

In summary, the above studies have given us an overview of the contents related to digital transformation in general. Although the research works are approached from many different angles, so far there has not been a study on the issue of digital transformation in teaching and learning at the Central Highlands University. These are valuable documents for the author to absorb, inherit and make comments in the content of his article.

Research Methods

Purpose: Analyze the current situation of digital transformation in teaching and learning at the Tay Nguyen University, thereby proposing some solutions to improve the effectiveness of digital transformation in teaching and learning at the Tay Nguyen University nowadays.

Methodology: The article uses a combination of some other methods such as analysis-synthesis method, logical-historical method to analyze the current situation of digital transformation in teaching and learning at Tay Nguyen University.

Main Findings: The study points out the advantages and disadvantages of digital transformation in teaching and learning, thereby offering solutions to improve the effectiveness of digital transformation in teaching and learning at the Tay Nguyen University nowadays.

Applications: Research results on the current situation of digital transformation in teaching and learning at Tay Nguyen University from a practical perspective help us understand the advantages and disadvantages of digital transformation in teaching and learning through which offers solutions to improve the efficiency of digital transformation in teaching and learning at Tay Nguyen University today.

Novelty/Originality: Research clearly shows the reality of digital transformation in teaching and learning at Tay Nguyen university, thereby proposing some solutions to improve the effectiveness of digital transformation in teaching and and training at Tay Nguyen University today.

Results and Discussion

The current situation of digital transformation in teaching and learning at Tay Nguyen University

With the strong demand for digital transformation, the education sector has determined a pioneering mission in carrying out this task, contributing to shortening the innovation process and improving the quality of education, especially in remote areas, remote areas and actively contribute to the national digital transformation process. In June 2020, the Prime Minister approved the National Digital Transformation Program to 2025, with orientation to 2030; in which, education and training is one of the top 8 priority areas in implementation. "The goal of the education industry is to strive for Vietnam to become one of the leading countries in digital transformation in education and training. So, effectively contributing to the successful implementation of the national digital transformation goal, creating high human resources, capable of international integration and responding well to the requirements of the new era". In recent years, the education sector has actively applied information technology in teaching activities. The education industry has developed an online teaching model, so that learners can learn anywhere, anytime, actively in learning more effectively. The basic foundation of digital transformation in education is based on physical facilities, information infrastructure, specialized digital databases, guidelines, policies, and a team of leaders, officials, and lecturers. staff, teachers, learners. Digital transformation in the education industry plays a very important role to improve the efficiency of student training activities, helping Vietnam become the leading countries in digital transformation in education and training. Digital transformation in the education industry requires a unified national technology platform so that everyone in the education industry can participate. Digital and academic resources also need to be implemented on a unified technology for all learning, teaching or online learning during the covid-19 pandemic to bring the best results. Digital transformation in education wants to develop well, the human factor needs to be given

the most priority. Universities should open training courses for technical support staff to adapt to the whole country, opening the most talented training systems. Digital technology has opened up a comfortable learning space via the Internet, helping learners to be active in learning, able to absorb knowledge more easily and conveniently. With a relaxed mind, it is obvious that learning results will be improved and enhanced. It helps to eliminate distance limitations, optimize learning time, and improve students' thinking. Moreover, since learners are not limited in accessing learning materials and save a lot of money, the use of technology makes it easier and more economical to share documents and textbooks between teachers and learners.

Recently, the Covid-19 epidemic that occurred globally, including Vietnam, has greatly affected all areas of life, education and training is no exception. In the current global educational innovation context, competency-based teaching has become one of the urgent issues. In Vietnam, reforming education and training is a major policy of the education sector and of the whole society. The 12th Party Congress of the Communist Party of Vietnam emphasized: "Continuing to strongly and synchronously renew the basic elements of education and training in the direction of attaching importance to the development of learners' quality and capacity... continue to strongly innovate teaching and learning methods, shape methods and methods of examination, examination and evaluation of education and training results to ensure honesty and objectivity. At the 13th Party Congress of the Communist Party of Vietnam, the affirmation: "Continuing to synchronously renew the objectives, contents, programs, methods and methods of education and training towards modernity and internationalization integration, comprehensive human development, meeting new requirements of socio-economic development... Focusing on education on morality, personality, creative capacity and core values". Thus, the fundamental and comprehensive renovation of education and training is an inevitable trend of Vietnamese education in the current period of integration and development. The education sector is very interested in training Vietnamese citizens with digital transformation knowledge and skills

to become global citizens. Therefore, digital transformation is identified by the education industry as a breakthrough, an important task to improve education quality and labor productivity, creating great opportunities for international integration. Digital transformation in education is a process that occurs where the change is not in the participants in the educational process or stakeholders, but in the change in the method of education implementation, thereby creating changes in methods, methods and techniques of teaching and training. The education sector over the years has promoted the application of information technology in teaching, learning and management and identified information technology application as one of the nine key task groups to effectively implement Resolution No. The Party Central Committee on the fundamental and comprehensive reform of education and training. In the coming time, digital transformation will be a breakthrough, an important task that needs to be focused on implementing to improve the quality of human resource training in the face of new requirements and new challenges in the social trend. international import. With the current trend of technology development, especially the 4.0 revolution, which is spreading, accessing technology into teaching and learning becomes more convenient. Users can easily interact anytime, anywhere on mobile platforms, social networks, and at the same time facilitate the development of online education.

Digital transformation affects many different stakeholders, of which the most direct and most affected are learners and lecturers, the office administrative team, the management team, who have to directly manipulate, operate, and operate, system operation. The Ministry of Education and Training has directed schools to be proactive and quick to adapt to developments and epidemics, to vividly and effectively apply information technology and digital technology to teaching, and strongly transform from online teaching continue to teach online, ensuring the school year program of students and students. The goal of the education sector is to strive for Vietnam to become one of the leading countries in digital transformation in education and training.

Digital transformation in the education industry, that is, the application of technology, is also based on the purpose and organizational structure of the educational institution and is applied in three main forms: Application of technology in the classroom: Facility classroom facilities, teaching tools. Applying technology in teaching methods: Applying technology education trends such as Smart Classroom, Gamification, Programming, etc. to teaching. Technology application in management: Management and operation tools.

Digital transformation in education and training focuses on two main contents: digital transformation in educational management and digital transformation in teaching, learning, testing, evaluation, and scientific research.

+Education management includes digitizing management information, creating large interconnected database systems, deploying online public services, applying 4.0 Technologies (AI, blockchain, etc. data analysis,..) to manage, operate, forecast, support decision making in the education and training industry quickly and accurately.

+ In teaching, learning, testing and evaluation, including digital materials (e-textbooks, electronic lectures, e-learning lecture warehouses, multiple-choice question banks), digital libraries, laboratories virtualization, deploying an online training system, building cyber universities.

Tay Nguyen University was established under Decision No. 298/CP dated 11/11/1977 of the Government Council with the task of training university-educated staff to serve the requirements of economic, cultural development, society in the whole Central Highlands region. With the great attention of the Party and State, the leadership and direction of the Ministry of Education and Training, the encouragement of Party committees and local authorities in the Central Highlands, Tay Nguyen University has become a multi-disciplinary, multi-level and multi-disciplinary university with an increasing training scale and increasing diversity in training professions, capable of meeting more and more qualified human resources, science and technology for branches and levels in the Central Highlands region. By 2030, Tay Nguyen University will be a prestigious, quality, multi-disciplinary university;

is a national center for scientific research and technology transfer in the fields of health, education, agro-forestry, environment, economy, nature and society; ensure that learners after graduation have the qualifications and skills to meet the human resource needs of the society. Following the policy of the Ministry of Education and Training, activities to ensure the quality of education in the University have been increasingly consolidated and deepened, contributing to the completion of education and training tasks. On the basis of effective implementation of the Socio-Economic Development Strategy 2011-2020 with the goal of defining "Educational development is the top national policy". At the 11th National Congress of Deputies, our Party clearly defined: "focusing on the fundamental and comprehensive renovation of the national education; closely link human resource development with the development and application of science and technology" (Communist Party of Vietnam, 2021, p.32).

On the basis of inheriting important documents of the Party in previous periods, in the Socio-Economic Development Strategy 2011-2020, "Education development is the top national policy. To fundamentally and comprehensively renovate Vietnam's education in the direction of standardization, modernization, socialization, democratization and international integration members and managers are key" (Communist Party of Vietnam, 2021, p.143). The above viewpoints are the inheritance of the consistent policy of our Party through historical periods, thereby demonstrating the qualitative development in thinking and awareness, attaching importance to the cause of education and training, as well as an important issue. The topic is strategic throughout, closely following the development trend of mankind, in line with the reality of Vietnam. Other important documents of the Party and State during the XI and XII congresses continued to concretize the policy of education and training reform. Implementing the Resolution of the 12th National Party Congress and Resolution No. 29-NQ/TW "On fundamental and comprehensive renovation of education and training, meeting the requirements of industrialization and modernization in economic

conditions socialist-oriented market economy and international integration".

Over the past years, Tay Nguyen University has built its orientation and development on the basis of sticking to the Master Plan for Socio-Economic Development of Dak Lak to 2020, vision to 2025, goals, direction of the Resolution of the 16th Dak Lak Party Congress, term 2015-2020 and the Resolution of the 11th Central Highlands University Party Congress, term 2015-2020. Quality improvement is considered as one of the top activities of the University. In 2018, in order to meet the development requirements of Tay Nguyen University in the new period, the Rector established the "Vision, Mission and Core Values" Building Committee to implement the plan to review and build the "Vision, mission and core values" and announced the vision, mission and core values of Tay Nguyen University according to Decision No. 132/QĐ-ĐHTN dated January 18, 2019, defining the vision: "By 2030, Tay Nguyen University will be a prestigious and quality multi-disciplinary university; is the national center of science, technology and technology transfer in the fields of health, education, agro-forestry, environment, economy, nature and society; ensure that after graduation, learners have the qualifications and skills to meet the human resource needs of the society"; Mission: "Training high-quality human resources, science and technology and transferring technology for socio-economic development. Preserve and promote the cultural values of the nation. With the 2018 mission statement, the University has dropped the phrase "the Central Highlands and the South Central" with the meaning of training, science and technology, technology transfer, preservation and promotion of cultural values of the university ethnic groups, not limited to the Central Highlands and South Central regions, but also expanding domestically, regionally and internationally to meet the requirements of education innovation and international integration. Thus, the improvement of quality is the responsibility of every individual and organization in the University. For training, the quality improvement is reflected in annual activities such as: Developing training plans; develop training programs and organize the training process;

recruitment organization; training management. The school assigns functional departments to coordinate with related units to inspect, supervise and evaluate activities in the training process and the suitability of training products with users' requirements labor as the basis for the renovation of training programs, curricula and teaching methods in order to improve training quality.

In terms of training scale, in the period 2011-2015, the training scale is from 20,000 to 22,000 full-time students after conversion, 900 to 1000 graduate students, in the 2016-2020 period, the scale is from 28,000 to 30,000 main students. conversion and 1,400 to 1,500 graduate students; regarding staff, as of December 31, 2019, the total number of facilities in the whole school was 678 people (including 08 seconded officers). In which: 291 men and 387 women; 30 ethnic minorities, specifically: Professor: 01; Associate professor – PhD: 19; PhD: 71; Master: 288; Specialist Doctor II: 03; Specialist Doctor I: 08; University: 219; College: 05; other qualifications (Tay Nguyen University, 2020, p.2). In terms of facilities, all policy students are allowed to live in boarding schools, have a modern library, over 60% of classrooms in high-rise buildings with teaching equipment, and invest in a new construction of about 15,000 m² of lecture halls 10,000 m² laboratory. As of December 2019, the University currently has 05 servers: One Lenovo server to store the University's database and the University's website server virtual machine, one IBM server to backup the University's database and website, 01 HP server running library software, 01 HP server running other software, 01 HP server running firewall, threading and managing the entire network in the School, Internet room, 20 computer labs computer, LAB room. The school's network infrastructure is equipped with 4 high-speed internet lines: 03 lines of Viettel, 1 transmission of VNPT.

Besides, there are 3 separate FTTH transmission lines: computer room of Faculty of Economics, Department of Informatics, Center for social sciences and humanities. The school is currently using 2 hardware and software firewall systems to protect the database stored on the server. Access rights: login with student code and lecturer code. In addition, the University provides internal email

accounts for lecturers, experts and staff to use uniformly throughout the school to ensure confidentiality as well as create consistency and synchronization in providing, exchange contact information within the School. Every year, the information technology system and infrastructure of the University are regularly upgraded to meet the teaching and learning needs of lecturers and students. In addition to computers, the University is also equipped with a number of other necessary informatics equipment such as projectors, printers, photocopiers, photo scanners (Scan), Camera... to meet management, training and scientific research in the School. Currently, the school has 02 computer rooms with 124 computers, 80 sets of desktop computers, 03 switch network devices, 08 fiber optic connection modules, 10 wireless network devices, 01 Lenovo server to serve better intranet system and learning and research needs of students and faculty. The library has a total document capital of 12,750 titles of textbooks, reference materials, specialized journals serving 9 faculties, 34 training disciplines, and the number of readers in the library is high. Endogenous documents such as theses, dissertations, scientific reports, and textbooks written by school staff and lecturers are increasing. The library is equipped with Ilib software, meeting the search needs of readers, knowing the loan and return status of the documents you read, the circulation status of the documents.

Tay Nguyen University combined a variety of methods in teaching and learning. Each student adapts to different teaching methods. Using a variety of methods will facilitate the highest adaptation between the teachers' teaching methods and the students' learning methods, creating good interaction between teachers and students. The school had a full range of classrooms, laboratories, pedagogical practice houses, practice workshops, net house system, multi-purpose gymnasium with necessary equipment to meet the requirements of teaching and learning. scientific research. Each classroom had appropriate teaching equipment (computers, projectors, CDs...). The school has an information technology system connected to the internet and a website that always updates the news, activities, learning results of students, etc. The school has invested in

building a modern library with an information lookup room, have software and equipment for borrowing, looking up documents, have full information and materials sources: books, textbooks, lectures of modules, related documents to meet teaching requirements, teach and learn. In addition, the School has a self-study room for students. However, the University has not yet built an electronic library.

Implementing digital transformation in teaching and learning at the school in the context of the complicated developments of the Covid epidemic, the school has used online platforms from the LMS system built by the school, the online training system for majors at Tay Nguyen University. Students can take regular courses, as well as extended courses, exploit related learning materials, interact with faculty and friends through this system and combine with other platforms such as: Google Meet, Microsoft Teams, Zoom ... to reach learners, convey the content of training programs at all levels, contact learners. The school uses Microsoft Teams to allow students to learn on many devices with high security: from the web, computers (both PC and MAC) to mobile devices. The software is capable of conducting lectures, meeting via video call, storing documents, lectures. At the same time, it is also integrated with Microsoft Office 365 office tools to help users optimize their work to the highest, improve teaching and group work efficiency. With 8,000 students of the online theoretical school, the online class is the official teaching time according to the timetable, fully meeting the conditions to ensure the quality of teaching. This way of online teaching basically copes with the context of social distancing, learners and teachers can approach each other to ensure that training programs still take place as usual.

Online teaching is implemented in the following form: in the immediate future, each lecturer registers 1 module to switch to online training in the first semester of the academic year 2021-2022, the general course is selected by the management department. Select suitable software, switch from live lectures (word Powerpoint...) to online lectures (video lectures...); fully prepare study materials that can be provided online for students: prepare review content, questions, online

assessment methods...In the long term, all modules are eligible (can be deployed online) will switch to online training when face-to-face teaching is not feasible. In general, the form of online teaching and learning at Tay Nguyen University in recent years has been implemented quite well. Now, teaching and learning has been able to take place normally, the school still maintains online teaching and learning, but only teaches 1/3 of the subject curricula in the context if the Covid epidemic is controlled. Through the practical implementation of digital transformation in teaching and learning through online teaching and learning at schools, certain difficulties exist in terms of technology, control and assessment of learners' capacity, mechanisms and policies... even from the teacher's side and the learner's side. Mechanisms, policies and legal corridors must be completed, creating a favorable legal corridor for digital transformation in the whole industry. These are policies related to learning materials such as intellectual property, copyright; related to the quality of teaching in the network environment such as network information security; related to politics, ideology and ethics of teachers and learners such as personal information protection, information security in the network environment; and regulations related to the conditions for organization of online teaching and learning, quality accreditation, legality and recognition of results when teaching and learning online. At Tay Nguyen University, the conditions for online teaching and learning in terms of facilities, although well-invested, have not been fully and effectively met by this method. For learners, especially those in weak and intermittent Internet areas, it is also difficult. Infrastructure, network infrastructure, equipment (such as computers, cameras, printers, scanners), transmission lines, Internet services)... are not stable, lack of synchronization. The investment in specialized digitized databases (student data, teacher/lecturer data, learning materials...) was initially interested, but management and implementation personnel were still lacking and weak. The school has not built a digital data warehouse (such as an electronic library, a multiple-choice question bank, electronic lectures, e-learning software...). The school has just initially planned to develop an

online learning program and study time, but it has not yet tested online assessment, online learning quality accreditation as well as recognition of online learning results.

Meanwhile, the basic infrastructure and facilities must be equipped to ensure the management, teaching and learning to be carried out equally among learners of different economic backgrounds; ensuring a smooth, stable and secure network environment, this problem is currently facing certain difficulties. When accessing online teaching software, teachers and students are still confused, applying technology to teaching makes many lecturers not familiar with this method:

The school's facilities, although well-invested, have not yet fully and effectively met this method. For learners, especially learners in weak and intermittent Internet areas, the system of interactive and exchange tools between lecturers and students still has some limitations that have not yet met the needs of future learners in Vietnam. anywhere, anytime, the necessary information has not been regularly updated to the system. The system of facilities (projectors, equipment, laboratories, laboratory gardens...) to support active teaching methods is still lacking due to the lack of annual funding for additional facilities hard.

Infrastructure, network infrastructure, equipment (such as computers, cameras, printers, scanners), transmission lines, Internet services)... are not stable, lack of synchronization. The investment in specialized digitized databases (student data, teacher/lecturer data, learning materials...) was initially interested, but management and implementation personnel were still lacking and weak. Lack of professional and modern management tools, the data at the library is located independently scattered from many different paths. The school has not built a digital data warehouse (such as an electronic library, a multiple-choice question bank, electronic lectures, e-learning software...). The school has just initially planned to develop an online learning program, study duration, test and evaluate online, assess the quality of online learning, and recognize online learning results.

The 2020-2021 school year ended with online learning, an interview related to "interest in online

learning" with teachers and students showed that learners and teachers were not really interested in learning online, online teaching. Besides technical reasons such as equipment and telecommunications infrastructure, there are reasons from both sides, there are problems because the teaching methods and techniques of lecturers have not convinced students. Meanwhile, students are not prepared in terms of mentality, spirit and skills, and are supported to ensure sufficient equipment infrastructure to effectively conduct online learning. The number of lecturers who prepare lecture content in the form of slides and video clips is quite small, leading to poor and unattractive lectures. Students do not really appreciate and are not active in online learning.

Tay Nguyen University is the largest university in the Central Highlands that controls the implementation of digital transformation. The school has obtained very important initial achievements, contributing to improving the quality and efficiency of operations, creating a competitive advantage and establishing a high brand and reputation in the society. However, the implementation results of the past years show that the implementation has not been synchronized across fields, the digital capacity of the team is still limited, leading to not fully exploiting the potential and advantages of digital technology. In the coming time, the school needs to have strategic and breakthrough solutions to improve the quality of digital transformation in teaching.

Solutions to improve the efficiency of digital transformation in teaching and learning at Tay Nguyen University

Firstly, continue to perfect the synchronous network infrastructure and practical information technology equipment for teaching and learning.

Building an E-learning online learning system and better supporting the interaction between lecturers and students in teaching and learning, ensuring the achievement of output standards and in accordance with the educational philosophy. Strengthen the construction of facilities to support active teaching methods. The school needs to focus on upgrading and increasing investment and maintenance of teaching materials and equipment.

Secondly, focus on building a digital data warehouse (for teaching - learning, testing, assessment, reference, scientific research).

The school needs to have a specific plan to build a smart, electronic library as a basis for uploading learning materials so that learners can access it through online platforms. Libraries need to strengthen their search for open-access and data sources for teaching, learning and scientific research.

Thirdly, there is a roadmap and plan for training and fostering human resources (teachers, lecturers, pupils, students) with knowledge and skills to meet the requirements of digital transformation. Trainer training is the foundation for the success of digital transformation in education at Tay Nguyen University. The process of digital transformation poses a need for educators to be more prepared for a new technology. It is necessary for lecturers to cultivate and learn constantly to adapt to the changes of the digital age, to use technology most effectively, and to be ready not to miss any possible opportunities which are provided by new educational technologies to develop and improve the quality of education. To meet this requirement, first of all, skills in using information technology, skills in information security, skills in exploiting and effectively using applications for teaching and learning work. Foster and improve the capacity of the team to carry out teaching methods with strong application of information technology, digital technology, and training through the virtual environment. Regularly open refresher courses and training courses in various forms of online training on competencies and digital technology for the University's human resources. It is necessary to organize separate training courses for lecturers, from many sides, including from schools, partners, affiliated universities, etc.

Fourthly, there is a plan and roadmap for new training and retraining of a contingent of librarians who have enough digital capabilities and capabilities to maintain and develop the digital transformation process... they must be proactive in the work, improve professional skills, information technology, foreign languages, improve the quality of human resources to meet the goals of digital transformation.

Fifthly, deploying combined teaching for all theoretical courses, experimental/practical courses on computers. Developing completely online training programs for a number of advantageous fields of the University such as economics, natural technology, etc. to meet the needs of learning anytime, anywhere to suit conditions and capacities. learning for each student. The formation of self-study capacity and a sense of lifelong learning should be more important than the knowledge of the training industry.

Sixthly, it is necessary to change the thinking and management capacity of the school's leaders to find out how to capture what is possible in the virtual space, effectively exploiting technology. School leaders need to be equipped with digital understanding and thinking to be able to master technology and understand its limits. Leaders need to set out their own transformation strategies, solutions and roadmap for the University and refer to experiences and practices from other schools to improve the quality of digital transformation in education and training at the school.

Conclusion

Over the past time, Covid-19 has developed complicatedly, affecting Vietnam in general and Dak Lak province in particular, causing great impacts on the nation's socio-economic development. In addition to the adaptation and initial success of industries in the province, education and training, digital transformation at Tay Nguyen University has shown to have brought certain results. The school must define digital transformation as an inevitable path, it is necessary to clearly define the vision, mission and goal of the argument transfer, and from there have a specific strategy and roadmap. To meet the requirements of building and developing high-quality human resources of the Central Highlands region, it is necessary to perfect the education system in an open direction to promote a learning society and lifelong learning. Striving to achieve the goal of the education sector is to turn Vietnam into one of the leading countries in digital transformation in education and training. Since then, effectively contributing to the successful

implementation of the national digital transformation goal, creating high human resources, capable of international integration and responding well to the requirements of the new era.

Acknowledgement

All authors contributed equally to the conception and design of the study.

References

- [1] Bao, H. T., Dung N. H., Quang, N. N. (2020). *Q&A on Digital Transformation: Information and Communication*.
- [2] Central Executive Committee. (2013). *Resolution No. 29-NQ/TW dated November 4, 2013 on fundamental and comprehensive renovation of education and training, meeting the requirements of industrialization and modernization in the context of a socially oriented market economy. internationalism and integration*. Hanoi.
- [3] Central Theoretical Council. (2021). *New points in the documents of the 13th Party Congress*: Hanoi: National politics
- [4] Communist Party of Vietnam. (2011). *Document of the XI National Congress of Deputies*. Hanoi: National Political .
- [5] Communist Party of Vietnam. (2016). *Document of the XII National Congress of Deputies*. Hanoi: National Political.
- [6] Communist Party of Vietnam. (2021). *Document of the XIII National Congress of Deputies*, vol.1. Hanoi: National Political.
- [7] Lindsay, H. (2020). *Digital Transformation – Digital Transformation – 5 Stages of Deploying Digital Technology for Enterprises: Information and Communication*.
- [8] Mark, R. G. W. (2020). *Digital transformation to the core: Enhancing leadership for your industry, business and yourself: Information and communication*.
- [9] Prime Minister. (2020). *Decision No. 749/QĐ-TTg dated June 3, 2020 of the Prime Minister approving the "National Digital Transformation Program to 2025, with orientation to 2030"*. Hanoi.
- [10] Prime Minister. (2020). *Decision No. 117/QĐ-TTg dated January 25, 2017 approving the Project "Strengthening IT application in management and support for teaching-learning activities, scientific research, contributing to improving the quality of education and training in the period 2016-2020 , oriented to 2025"*. Hanoi.
- [11] Central Highlands University. (2019). *Announcement on popularizing and mastering the "educational philosophy" of Central Highlands University*. Decision No. 3214/TB-ĐHTN - TCCB dated December 30, 2019. Dak Lak: Tay Nguyen University.
- [12] Tay Nguyen University. (2020). *Self-assessment report*. Dak Lak: Tay Nguyen University.
- [13] Tay Nguyen University. (2020). *Announcement of the implementation of online training of Tay Nguyen University*. Decision No. 1790/TB-ĐHTN dated September 10, 2020. Dak Lak: Tay Nguyen University.
- [14] Tay Nguyen University. (2021). *Notice regarding online teaching for the second semester of the academic year 2020-2021*. Decision No. 299/TB-ĐHTN - TCCB dated February 17, 2021. Dak Lak: Tay Nguyen University.
- [15] Think Tank Vinasa. (2019). *Vietnam in the digital transformation era: The world*.