



Received: 28-07-2023
Accepted: 08-09-2023

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Model of Digital Competence of Students at Higher Education Institutions: Survey at Nha Trang University

Huynh Phuong Duyen
Nha Trang University, Vietnam

Corresponding Author: **Huynh Phuong Duyen**

Abstract

Universities in Vietnam are increasing the integration of technology into the teaching and learning process. Students not only learn through books, but also through online platforms, online courses, and real-world projects that incorporate technology. With the strength of young people quickly absorbing changes in information technology and the requirements of the digital transformation inside and outside Nha Trang University, there has been a gradual change in awareness, attitude, and skills about necessary

participation in the digital transformation process in learning and training. The article is made based on synthesizing and analyzing some models of digital competence of students at higher education institutions and analyzing conditions for application at Nha Trang University. The article is carried out based on the document retrospective method, the method of information synthesis and analysis, and the expert method, to propose a model suitable for the digital competence of students at Nha Trang University.

Keywords: Higher Education Institutions, Nha Trang University, Digital Capacity, Digital Competency Model, Student

1. Introduction

In this day and age, with the continuous development of technology and digital, the ability to use and interact with technology has become a core element and has revolutionized almost every aspect of life. From how we communicate this product, how we manage information, or how we learn and develop ourselves.

An important ability that people need to possess in this age is digital competence-the ability to understand, use and interact with digital technology.

At institutions of higher education, where knowledge and skills are imparted, digital literacy plays an important role for generations of students and is also a potential opportunity to ensure learners can better adapt to today's increasingly digitalized world. However, the challenge is how to build an educational model strong enough to meet this need, while ensuring sustainability and flexibility in updating according to the continuous development of the industry. Turmeric.

Nha Trang University is under the Ministry of Education and Training, the predecessor of the University is the Faculty of Fisheries, which was established on August 1, 1959, at the Academy of Agriculture and Forestry, Hanoi (now the Vietnam Academy of Agriculture), is the starting place for the university-level training career of Vietnamese fisheries. The school is currently training 36 undergraduate majors, 17 master's degrees, and 11 doctoral degrees, with nearly 16,000 students and trainees. On July 31, 2023, the school was recognized as meeting the educational quality standards (3rd time) and granted the certificate of educational quality accreditation (according to Decision No. 108/QĐ-TTKĐ of the Center for Quality Accreditation). Education quality-Vietnam National University, Ho Chi Minh City). Like many higher education institutions in Vietnam, Nha Trang University identifies digital capacity enhancement as an important task to better fulfill the requirements and tasks in the context of transformation numbers.

Digital competence has been studied a lot and also has many perspectives since its birth in the late twentieth century. Up to now, in the context of the growing digital age, this concept has also become more complex and multidimensional. Digital competence is not merely the ability to use digital tools but also involves the ability to process information and solve problems and create value from digital technology. This article is based on systematic literature reviews collected between 2010 and 2023, to provide the most general overview of the nature and scope of digital competence in higher education today.

The article "Digital competency model of Students at higher education institutions: application at Nha Trang University" aims to provide a picture of the situation and process of digital capacity development for students at the universities in general, Nha Trang University in particular, as well as proposing a model to help improve and optimize this process.

2. Research Contents

2.1 Overview of Digital Capabilities

2.1.1 The Concept of Digital Capacity

Competency is a common concept in daily life, understood as a characteristic of an individual that shows a level of proficiency, that is, can competently and reliably perform one or several types of activities. There (Ha Hoc Trac, 2005) [7]. In terms of capacity structure, there are three factors: Knowledge, Skills, and Attitudes. (Huitt, 2011) [9].

The concept of digital competence was first mentioned in 1997, understood as the ability to understand and use information in different formats, from many different sources, displayed on computers (Gilster, 1997) [5]. From this definition, many researchers later gave many different definitions. Here are some definitions of digital capabilities: Digital competence is the self-deprecating, thoughtful, and creative use of information and communication technology to achieve goals related to work, study, entertainment, inclusion, or participation. into society (Ferrari & Punie, 2013) [4].

Digital competence (Tang & Chaw, 2016) [15] is an individual's awareness, attitude, and ability to properly use digital tools and facilities to identify, access, manage, evaluate, analyze, synthesize digital resources, construct new knowledge, create media representations and communicate with others, in specific life situations, to take constructive social action. and to reflect on the process.

According to UNESCO (2018): Digital competence is the ability to safely and appropriately access, manage, understand, combine, communicate, evaluate, and create information through digital technology to serve jobs from simple to complex as well as start-ups. Digital competence is a combination of computer capacity, information technology capacity, and communication capacity (Law *et al.*, 2018) [11].

In Vietnam, research works have also provided a way to understand digital competence, for example, the authors (Dai & Marquet, 2018) [1] describe digital competence as the ability to firmly and consciously use digital tools. tools of the information society in work, leisure, and communication; The author (Hung, 2022) [10] in the Digital Competence Handbook has based on the definition of UNESCO (2018) but adds that: self-responsibility is considered an integral part of digital competence and has an important impact when making digital capabilities proposals.

Within the scope of this article, the author uses the definition of UNESCO as a basis to study and build a model of students' digital competence in higher education institutions. Thus, the digital competence of students is understood as the ability to access, manage, evaluate, create, and share information on a digital technology platform to serve learning, daily life as well as educational activities. future professional activities effectively, by the law and social ethics.

2.1.2 Competency Framework No

In the past decade, research on teaching models and competency approaches in education has attracted a great deal of attention from scientists. The competency approach is still a trend that needs further research to improve the quality of teaching at different levels of education. In the current higher education, many educational systems have oriented towards educating learners so that learners are

capable of mastering knowledge and using knowledge to solve problems in science as well as in real life every day.

Currently, there is a diversity of theoretical frameworks/models, which means that many educational institutions have actively developed digital competency frameworks. Depending on goals, industry characteristics, and different perspectives, digital competency frameworks also have some differences, however, most of them are still based on the content of digital competence concepts. Some of the competency frameworks that have been applied in the world today can be mentioned:

Digital Competency Framework of the European Commission issued in 2017 (DigComp).

UNESCO Digital Competency Framework was released in 2018.

The Information Systems Joint Commission's Digital Competency Framework, 2017 (JISC).

The Australian Council of University Libraries' Digital Competency Framework, updated in 2020 (CAUL).

Australian Government Digital Competency Framework to be released in 2020.

Microsoft Digital Competency Framework, 2021 update.

Global Internet Association Digital Footprint Program, 2021 update.

Meta's Digital Age Mindset Program, 2021 Update.

In general, in recent times, the world has developed many digital competency frameworks (Hung, 2022) [10] which are regularly updated to match the socio-economic context and the development of science. technology. Technology is evolving at a rapid pace, and old knowledge easily becomes obsolete. With specific and clear orientations on digital competence, learners will actively plan and orient themselves as soon as they enter the university lecture hall. Moreover, students also have the opportunity to identify their strengths and weaknesses, thereby preparing for adaptation in the learning process and future career orientation.

2.1.3 Overview of Research on Digital Capabilities

Studies show that digital literacy is an important skill for university students to develop. The author (Morgan *et al.*, 2022) [13] provides a three-dimensional framework for digital literacy and finds that students report the lowest proficiency in using digital information, namely assessment, and identification of bias as well as information quality. (Gutiérrez-Ángel *et al.*, 2022) [6] found that universities are focusing on digital competencies as a central theme and are strengthening competencies related to digital writing and reading, using databases, designing content and digital documents, and the skills to edit, publish, or share them on the web.

A properly designed digital competency model will encourage students to use digital knowledge to solve real-world problems or flexibly apply learned knowledge in many different situations. In addition, with the use of digital tools, software, and devices, students are aware of the need to continue learning and update their knowledge to work in a digital and technological environment.

In addition, some authors also pointed out some shortcomings, which in the process of building digital capacity models for educational institutions should be further noted, for example, according to the author (Monteiro, 2020) [12] found that students are mostly proficient in data search and editing skills, but are less likely

to create and develop new digital solutions or in the team's research (Huber & Shalavin, 2018) ^[8]. Australian higher education institutions lack clarity and commitment to digital literacy-focused professional learning.

In general, there are many digital capacity models in the world today, but the general assessment in many studies shows that these models are almost not fully compatible with domestic conditions (Ton & Marquet, 2019) ^[14]. This means an important factor for having an appropriate digital competency research model is to develop clear output standards that represent educational goals and to establish conditions and opportunities to encourage students to achieve their goals. Learners achieve the set goals.

2.2 Research Methods

Research data: research works on students' digital capabilities; Circulars and policy documents on the digital competence of learners.

Investigation methods; In-depth interviews and expert opinions were collected to collect information from the staff of administrators, faculty, departmental specialists, and lecturers of the Faculty of Foreign Languages and Informatics about the digital competence of students at the University. Learning Nha Trang in the context of digital transformation. This method is used to survey and assess the current situation and propose solutions to improve students' digital capabilities in the coming time.

Analytical method: To explain and clarify the major issues and contents that the topic needs to be solved for the digital competence of students at Nha Trang University.

Synthetic method: Used to synthesize data, reports, and information collected through analysis, comparison, and investigation, asking experts to generalize, abstract, and interpret the bases. Theory and reality of digital competence for students at Nha Trang University in the context of digital transformation.

Statistical method: Used to collect necessary statistics for the study of survey data on the current state of digital capabilities for students at Nha Trang University in the context of digital transformation.

2.3 Some Models of Digital Competence for Students at Higher Education Institutions

According to UNICEF, the digital competency model is suitable for current Vietnamese students and can now be a "5P" model, including 5 main factors such as awareness, access, use, use, soy sauce works, and told secret. The instrument can like after:

Awareness: Students need to be aware of the meaning and importance of digital competence, its benefits, and the consequences of not having power numerical force.

Access: Students need to be able to access digital technologies, including the ability to power history using a set bag, conclude connect Internet, and find pine sword believe.

Use: Students need to be able to use digital technologies to find swords, fight prices, use history, and create and share

information.

Interaction: Students need to be able to interact online and communicate pine via the labor turmeric number, bag including ability power history use email, belief the message, network commune festival, and the application use trick story online.

Confidentiality: Students need to know about information security and confidentiality when history use the labor turmeric number, bag including ability power feces bye the page web and pine believe worth belief trust, history use a honey password a full and avoid the termite's anvil threaten a Ninh network.

The project "Improving digital capacity for Vietnamese Youth in Period 2022 - 2030" of the Central Committee of the Ho Chi Minh Communist Youth Union, also shows power force numbers including the group power force main to be:

Power force history uses the set bag, part soft: To be able to power receive know, choose to select and use hardware devices and software applications to solve problems set out in learn the practice, research rescue, born Hentai and do the job.

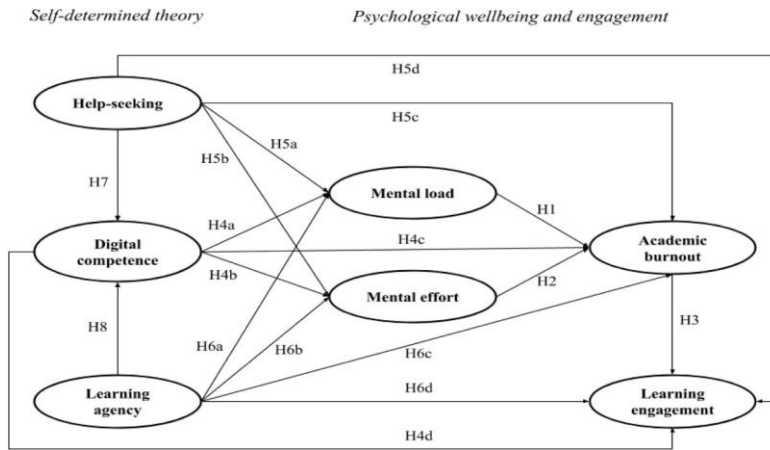
Power force declares waterfall evil Whether Pine believes: To be the ants awake, carefully power find, evaluate, use, store and contribute data and digital information correct determined belong to France the law and standard squid religion virtue.

Communication and cooperation capacity: is the attitude, behavior, and ability to connect, divide shall, and cooperate with all People pine via the direction convenient carefully art number.

Ability to learn, work and develop: the ability to identify opportunities, challenges, and participation in learning and working in the digital environment; use, information sharing, digitized learning materials. Using digital and public resources digital instruments to hold catch coin direction play develop belong to labor digital technology.

Innovation and creativity capacity: the knowledge and skills for research, design, manufacture, develop and apply digital products in learning, daily life, entertainment, work, start-up, etc. It is also the skill of using digital tools, technology, etc digital to create an idea new, a new product.

To help students acquire the necessary digital capabilities to live, learn, to practice, work and participate in social communication in an active, positive, and safe manner in the digital environment, the University of Social Sciences and Humanities has researched Research and developed a Digital Competency Framework for students. This digital competency framework has been used to update the contents of the Introduction to Information Competency module, develop the Digital Competency Development Manual and develop a new module Advanced Digital Competency for the program. Information management training in schools. The following is a diagram of the Digital Competency Framework for students of the University of Social Sciences and Humanities including 7 groups of competencies.



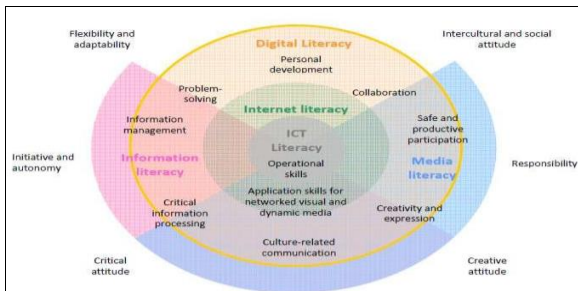
Source: Digital competency framework for students of the University of Science Commune festival and Core literature

Fig 1: Digital competency framework including 7 groups of competencies

In the digital context, scientists have researched and built capacity numbers with the group power force in ways feces divide differently.

Author Ala-Mutka, K. (2011) has determined that digital competence includes 5 groups capacity: Technology-information capacity; Information competence, data management, and the media; Ability to communicate, collaborate and participate in the digital environment; Creativity, problem-solving, and innovation new; Ability to identify and protect guarantee a born in lip school number.

According to Janssen & Stoyanov (2012, p. 21), Janssen *et al.* (2013) expanded the scope of digital competence both legally and ethically in the digital environment create should events weigh equal between up set department learn carefully art with shoulder trick commune festival belong to labor turmeric. Beside edge there, the works fake feces divide the level degree (6) level degree from Have ants awake, power force muscle copy dress service soft bridge history use labor turmeric number in labor job, life lives daily to study, use continuously, master digital technology in a way proactive with brand high fruit).



Source: Ala-Mutka, 2011, p.44

Fig 2: Digital competence, media competence, and information literacy

Art fake The Hague & Payton (2010, p. 19), corpse determined power force number can presently via 4 groups carefully power: Possibility power carefully art muscle copy, Technical power find thee sword and select filter pine believe, Delivery skills effective relay, Technical through safety electronic news.



Source: Janssen & Stoyanov (2012, p. 21)

Fig 4: Digital competency framework consists of 6 levels

The Ministry of Information and Communications of Vietnam issues regulations on the set of standards for basic information technology skills with specific criteria with different levels of degree Love bridge carefully art need obtain Okay.



Source: The Hague, C., & Payton, S. (2010)

Fig 3: Digital competency framework includes 4 groups of competencies



Source: According to author Nguyen Tan Dai, 2018

Fig 5: Circular No. 03/2014 of the Ministry of Information and Communications

2.4 Proposing a Digital Competency Model for Students at Nha Trang University

In the process of researching and proposing a digital competency model for students to apply to Nha Trang University, the author has reviewed the research on digital competence at educational institutions around the world, referring to the following frameworks. Digital capabilities have been researched and applied in Vietnamese higher education institutions in recent times. In addition, the building of a digital competency model also depends heavily on the goals, orientation, industry characteristics, size, and student characteristics of each higher education institution. Resolution No. 19/NQ-ĐHNT dated April 15, 2022, of the University Council on the Promulgation of the Project on the Implementation of the Development Strategy of Nha Trang University in the 2021-2025 period on digital transformation, the University has succeeded in being proactive and active in information technology application and management, teaching and learning activities; focus on investing funds for information technology application activities; Take advantage of educational support resources

from software vendors. However, besides that, there are still some problems, for example, digital transformation activities in the school units are still slow and uneven; incomplete management software system; The digitization, construction, and updating of digital learning materials, the development of electronic lectures and the exploitation of learning resources have not yet become systematic and difficult to control quality.

Based on the above theoretical and practical bases, in this article, the author proposes a model of digital competency of students at Nha Trang University, including 5 groups of competencies as follows:

1. Technology capacity
2. Information capacity
3. Digital safety and security capabilities
4. Ability to learn and create digital content
5. The ability to use digital capabilities for careers

Brief description of the digital competency framework for students at Nha Trang University, based on the Competency Manual No. 2022 for students, edited by Do Van Hung:

Table 1: Digital competency framework for students at Nha Trang University

STT	Capability Group	Ability Description
1	Technology capacity	Identify, select, and use hardware devices and software applications to identify, and process data and digital information in problem-solving
2	Information capacity	Identify information needs; search, locate, and access information; evaluate information sources and content; use information by the law and ethics
3	Digital safety and security capabilities	Protect devices, content, personal data, and privacy in the digital environment. Awareness of the impact of digital technologies and their use on the environment.
4	Ability to learn and create digital content	Identify opportunities, challenges and participate in learning and working in the digital environment; create and edit digital content; transform and combine information and digital content into existing knowledge.
5	The ability to use digital capabilities for careers	Operate digital technologies in specific career contexts; understand, analyze, and evaluate data, information, and digital content for professional activities.

Source: Do Van Hung, 2022

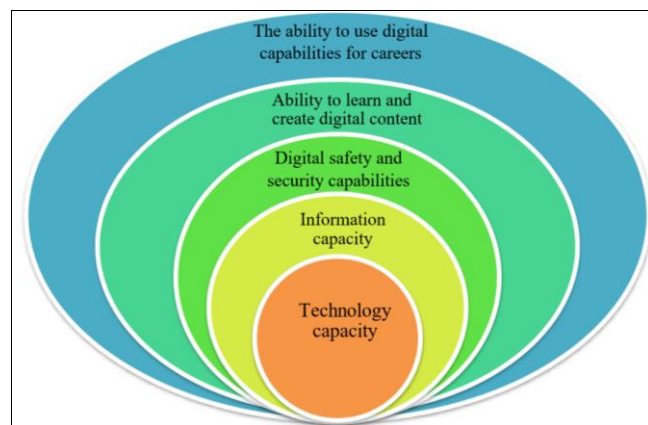
The digital competency model will support students to develop academic and social competencies, bringing certain benefits during operation:

Institutional leaders can identify the impact of digital capabilities on education and training and, at the same time, ensure that the appropriate and necessary digital capabilities provide and equip students; building a development strategy and enhancing the University’s reputation and image in the context of digital transformation.

Instructors determine what criteria learners need to achieve to develop digital competencies, on that basis develop a teaching-learning plan and use appropriate learning methods.

Learners can also recognize digital competency standards related to their own learning, work, and life processes so that they can be proactively prepared to adapt well to the educational and professional environment in future work.

on the research basis of the Digital Competency Framework of organizations, the above researchers and the authors build a Digital Competence Framework for students including 5 groups of competencies: Information technology competence, information competence, communication capacity, capacity to ensure digital security, capacity for innovation and creativity to serve as a theoretical basis for assessing the current situation and proposing solutions to improve digital competence for students at the University study in Nha Trang.



Source: Suggested by the author

Fig 6: Proposing a digital competency model for students at Nha Trang University

Based on the study of the built capacity frameworks, the group The author believes that to form and evaluate digital competence for students, it is necessary to rely on over 5 standards from basic to advanced; from information technology capabilities to power force change new and bright create above lip school labor turmeric number. The power force number belonging to Students will be analyzed in detail in the structure of digital competence according to the structure of competence force including 3 weak

elements: knowledge, skill, and Thai degree (capacity on one's bear blame duty).

Structure bamboo capacity number of born tablets

Knowledge, skills, and attitudes (self-responsibility) are three components of structuring capacity. When it comes to students' digital competence, it must be expressed through all three factors: knowledge, skills, and attitudes (capacity to take responsibility for themselves). To form digital competence and assess students' digital competence, it is necessary to: rely on the pepper lice belong the structure bamboo power force and the group power force number in the frame power force number like submit display live above to guarantee to tell structure bamboo vertical and structure bamboo horizontal.

1. Information technology capabilities

About knowledge: Students recognize the functions and features of computer hardware and software and how to use them; can explain the use and similarity principle of the work of the count power above set bag number.

About carefully Ability: Choose select, history use Okay the set bag belongs to machine count live level degree basic; Identify technical problems that may arise when operating and using the use of devices in the digital environment; Analyze solutions to solve problems topic technique When luck onions and history use the set bag in the lips number field.

Attitude: Diligent, diligent in studying, and updating information technology knowledge beliefs; Having a sense of appropriate and effective self-learning methods of information technology; Having forging consciousness training carefully power history public use information technology beliefs.

2. Information Capacity

About knowledge: Students identify individual information needs; know about accessing, exploiting, processing, storing, and managing information by the law, religion virtue, literature socialization festival, dress service soft bridge study.

About skills: Know how to identify information needs; locate, and access information beliefs; assess information sources and their content; store, manage and organize information organization; use information by the law, ethics, culture, and society to serve learning needs. For example: find information to apply in completing assigned assignments; use, and cite documents by regulations in the process of studying and researching; apply anti-religious methods literature on study and research; create new content based on information and data collect okay.

Attitude: Careful, cautious, socially responsible; Critical and creative thinking.

3. Digital safety and security capabilities

About ants awake: Born tablets receive face Okay language deliver next standard squid edema fit with the group commune festival other together in lip school number; receive a face, choose effective opt-in to online groups/communities/ forums; knowledgeable managing digital identities in online communities; Identify opportunities and risks when greed lip service school number and history use the pandemic service background platform number.

About skills: Can use different communication languages in the environment number field; practice behavioral standards

in the digital environment; plus selection force online community that suits your learning needs; adapt to the diversity of culture and generation in online communities; practice and contribute to the development of behavioral standards for online communities; proactive avoid risks to individuals and communities when interacting in the digital environment; real act the soy sauce works commune festival above muscle department respect important permission, Products price child People.

About attitude: Confidence, self-respect, Cautious, responsible social, share, see-through understand, copper has a cold; Have private only counter defend, bright create.

4. Ability to Learn and Security Capabilities

About knowledge: Identify educational trends, and learning forms emerging on the Internet platform by individual needs and preferences with How to be a digital learner for lifelong learning and personal development core. Understand basic concepts of open access, open education, science open, open data, and open educational resources. List and describe digital devices, and features of the application/software used for learning activities. Listable the source talent original spear sex open spectrum variable in lip school number. Receive face involved stakeholders in the process of promoting open access to source talent original learn practice. Feces volume shoulder trick belongs to paper permission open opposite to with job divide share and uses information in the digital environment. Forming ideas, processes, and ways to promote open access in a digital academic environment to identify and seek individual self-development opportunities based on the progress of labor turmeric number with the learning method practice brand fruit in the lips school number.

About skills: Establishing motivation and habit of discovering and learning through online courses and programs. Practice learning methods online learning and using tools and learning in the digital age. Use learning applications, devices, and software to participate in forms of learning online or combined. Using editing, presentation, and calculation software maths dress service gives Hentai dynamic learning practice. Set the next manager's physical time and labor job equal part soft and set bag number. Khai Waterfall is Okay the source talent original Spear Sex open dress service gives the job to learn to practice and elevate High submit degree. Play develop add copper People use and share open-access academic resources. Resource Creation spear sex open and divide shall give add copper. Shen determined the source talent's original access open access before when history uses and share.

About attitude: Like to explore new things, positive; boldly make decisions to choose effective problem-solving solutions; willing to share information, and spread new and positive things in the digital environment

5. The ability to Use Digital Capabilities for Careers

About knowledge: Students can explain the concept of digital footprint, identity numbers, distinguishing digital identities from digital footprints; the relationship between digital footprint, name count numbers with privacy; analyzing the influence of technology trends and events play development of the pandemic service number opposite to with lip school number.

About skills: Optimizing benefits when participating in the digital environment; controlling the risks from digital

identities, avoiding being traced, and always interacting on purpose. The instrument can: real onion Okay job Star save, dress anise evil Whether a full; save store, divide shall appropriate, confidential data; Identify phishing attacks or malware; manage and control digital footprint, protect identity effective digitalization and privacy; online activity control do not do affect the reputation of individuals and others; split numeric identity by many talent account/set bag to avoid love status bag access patch; pressure the law An Ninh network and Access to Information Law to protect digital identity and privacy; selection of applications and devices supporting the use of digital technology in the direction of health safety Strong and pure God, limited work harmful belong to digital technology for lip school.

Attitude: Proactive, calm, flexible, cautious, self-directed, thoughtful contrarian defend, bright create.

3. Conclusion

In the current digital transformation context, it is proposed to build a digital competency model for students to ensure that they are fully equipped with the ability to understand, use and interact with technology in the digital environment. Increasingly complex, helping students have more opportunities to study and develop professional activities later.

As mentioned, despite the growing interest in digital literacy, there is still a lack of guidance for instructors on how to identify, assess, and how translate digital knowledge into the classroom. Learn. Therefore, the author argues that, in addition to building digital competency assessment criteria or digital competency models for students, it is urgent, but besides that, specific and appropriate guidelines are also needed. To make the digital transformation process go smoothly and effectively.

4. References

1. Dai NT, Marquet P. Digital literacy in response to the needs of the society: International models and practical approaches in Vietnam, 2018.
2. Kasim Binici, Compétences numériques en réponse au besoin de la société: Modèles internationaux et approches pratiques au Vietnam, The Journal of Academic Librarianship. 2021; 47(3):p102360.
3. Digital capacity to meet social needs: International models and approaches in Vietnam. City Journal of Social Sciences. HCM. 2018; 244(12):23-39. <https://hal.science/hal-02060671>
4. Ferrari A, Punie Y. DIGCOMP: A framework for developing and understanding digital competence in Europe. Print: Publications Office of the European Union Luxembourg, 2013.
5. Gilster P. Digital literacy. Wiley Computer Pub. New York, 1997.
6. Gutiérrez-Angel N, Sánchez-García JN, Mercader-Rubio I, García-Martín J, Brito-Costa S. Digital literacy in the university setting: A literature review of empirical studies between 2010 and 2021. Frontiers in Psychology. 2022; 13.
7. Ha Hoc Trac. Vietnamese Encyclopedia Dictionary. Print, 2005.
8. Huber E, Shalavin C. Surveying the digital literacy landscape for academic and professional staff in higher education, 2018.
9. Huitt W. Bloom *et al.*'s taxonomy of the cognitive domain. Educational psychology is interactive. 2011; 22:1-4.
10. Hung DV. Handbook of digital capacity development for students, 2022.
11. Law N, Woo D, De La Torre J, Wong K. A global framework of reference on digital literacy skills for indicator 4.4.2, 2018.
12. Monteiro A. Digital literacy in higher education: skills, uses, opportunities and obstacles to digital transformation, 2020.
13. Morgan A, Sibson R, Jackson DA. Digital demand and digital deficit: Conceptualizing digital literacy and gauging proficiency among higher education students. Journal of Higher Education Policy and Management. 2022; 44:258-275.
14. Tan DN, Marquet P. Students' digital capacity to meet social needs: A study on a preliminary application model in Vietnam. City Journal of Social Sciences. HCM. 2019; 249(5):24-38.
15. Tang CM, Chaw LY. Digital Literacy: A Prerequisite for Effective Learning in a Blended Learning Environment? Electronic Journal of E-Learning. 2016; 14(1):54-65.
16. Williamson B. Viewpoints: Teaching and learning with games, 2007.