



**APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY
AND CREATIVE TEACHING METHODS FOR SUSTAINABLE
DEVELOPMENT EDUCATION THROUGH TEACHING THE VIETNAMESE
1 MODULE TO STUDENTS OF PRIMARY EDUCATION MAJOR
AT TAN TRAO UNIVERSITY**

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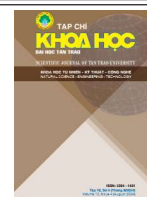
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Abstract:

The article is based on theoretical issues regarding the application of communication technology, innovative teaching methods, and education for sustainable development. It also examines the current state of applying communication technology and innovative teaching methods in teaching the Vietnamese 1 module to primary education students at Tan Trao University. Based on the survey results, we assess the advantages and challenges, identify the causes, and propose three measures to enhance the effectiveness of applying communication technology and innovative teaching methods in teaching the Vietnamese 1 module to primary education students at Tan Trao University, aiming to improve teaching efficiency and students' self-learning capabilities.



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Từ khóa:

Công nghệ truyền thông,
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tạo, GD vì sự phát triển bền
vững, ngành GD tiểu học,
Đại học Tân Trào.

Tóm tắt

Bài viết dựa trên các vấn đề lí luận về ứng dụng công nghệ truyền thông, phương pháp dạy học sáng tạo, giáo dục vì sự phát triển bền vững và khảo sát thực trạng việc ứng dụng công nghệ truyền thông và phương pháp dạy học sáng tạo trong giảng dạy học phần Tiếng Việt 1 cho sinh viên ngành Giáo dục Tiểu học tại Trường Đại học Tân Trào. Từ kết quả khảo sát, chúng tôi đánh giá thuận lợi, khó khăn, chỉ ra nguyên nhân và đề xuất 3 biện pháp nhằm nâng cao hiệu quả ứng dụng công nghệ truyền thông và phương pháp dạy học sáng tạo trong giảng dạy học phần Tiếng Việt 1 cho sinh viên ngành Giáo dục Tiểu học tại Trường Đại học Tân Trào nhằm nâng cao hiệu quả giảng dạy và khả năng tự học của sinh viên.

1. Introduction

Decision No. 117/QĐ-TTg in 2017, issued by the Prime Minister of the Socialist Republic of Vietnam, promulgated the Project on Enhancing the Application of Information Technology (IT) in Management and Supporting Teaching, Learning, and Scientific Research Activities to Improve the Quality of Education and Training for the 2016–2020 Period with an Orientation Towards 2025. The objectives explicitly state: “Enhancing the application of information technology to promote

innovation in teaching and learning content, methods, assessment, scientific research, and management in educational institutions across the national education system” (Prime Minister of the Socialist Republic of Vietnam, 2017).

IT is considered one of the critical tools that offer significant advantages in teaching and learning, such as enabling teachers to update information, innovate teaching methods (shifting from face-to-face to online modes, integrating technology-based games, etc.), attract students’

attention, and foster active and self-directed learning. Utilizing IT software in teaching is also a requirement for innovating teaching methods to activate and enhance students' learning activities effectively.

Education for Sustainable Development (ESD) is a process of providing knowledge, fostering critical thinking, collaborative skills, and a sense of responsibility towards the community and the environment. ESD aims to raise awareness of global issues such as climate change, biodiversity loss, inequality, and to promote positive actions to address these challenges. The learning process within ESD not only changes behavior but also motivates individuals to alter the way they interact with the environment.

Technology and innovative teaching methods play a crucial role in ESD. Technology connects learners with global information resources, creates new learning opportunities, and supports distance learning, particularly in the context of digital transformation. Methods such as project-based learning and experiential learning enable learners to develop essential skills for sustainable development.

Joining the global trend, Tan Trao University has been enhancing information technology capacity and innovating teaching methods while encouraging students' self-directed learning.

With the aim of clarifying the effectiveness of this model in teaching, this study focuses on improving the use of information and communication technology (ICT) and innovative teaching methods to promote education for sustainable development. The research is conducted through the teaching of the *Vietnamese I* module to primary education students at Tan Trao University. It aims to enhance teaching effectiveness, meet training requirements, and contribute to sustainable development in education.

2. Literature Review

2.1. Theoretical Issues on the Application of Communication Technology and Innovative Teaching Methods

UNESCO forecasts that information technology will comprehensively transform education systems in the early 21st century, introducing non-traditional approaches and promoting transformative education for humanity. The advancement of educational technology necessitates a reevaluation of teaching values, with a focus on the relationship between technology and the essence of education.

Current global challenges are influenced by four main factors: social impact, strategy, human resources, and technology (Nguyen Quy Thanh, 2024). Deloitte Consulting has also projected seven disruptive factors, including artificial intelligence, the data explosion, and automation, which are expected to have profound impacts.

In the process of reconciling societal and educational needs, information technology is prioritized as a tool to support "digital citizens," enhance the ability to accumulate and share knowledge, and build an adaptive education system (Deloitte Consulting LLP, 2018).

In Vietnam today, the application of information technology in educational activities plays a crucial role. Resolution No. 29, passed during the 8th Meeting of the Central Committee of the Communist Party of Vietnam (11th tenure), emphasizes the goal of "Fundamental and comprehensive renovation of education and training". It highlights the need to continuously innovate teaching and learning methods towards modernity, fostering active, proactive, and creative learning while encouraging the practical application of knowledge and skills by learners. To enhance teaching effectiveness, the education sector is prioritizing significant investments in the application of information technology and educational software in teaching activities (Central Committee of the Communist Party of Vietnam, 2013). The Party's documents also

outline a vision for adopting and developing cutting-edge technologies: “Prioritize digital technologies, 5G and post-5G connectivity, artificial intelligence, blockchain, 3D printing, the Internet of Things, cybersecurity, clean energy, and environmental technologies to transform and enhance productivity and efficiency across the economy. Strongly promote science, technology, and innovation as key drivers of economic growth. Implement digital transformation in national governance, state management, production, business, and social organization” (Documents of the Communist Party of Vietnam 2021).

Current technological trends in education focus on smart education models, emphasizing the shift from traditional methods to high-tech approaches. “SMART Education” integrates comprehensive technology, enabling unlimited connectivity via the Internet and encompassing components such as smart classrooms, environments, teachers, and campuses.

The “SMARTER Education” model advances education by incorporating elements such as Self-directed learning, Motivation, Adaptability, Resources, Technology, Engagement, and Relevance. This approach aims to improve quality, diversify educational outcomes, and foster personalized development.

Rather than merely delivering rigid knowledge, schools should focus on developing learners’ skills, vision, and talents through flexible and adaptive learning programs.

2.2. Education for Sustainable Development (ESD)

2.2.1. Definition

Education for Sustainable Development (ESD) is a process that provides knowledge and skills while fostering critical thinking, collaboration, and a sense of responsibility toward the community and the environment. ESD emphasizes raising awareness of global issues such as climate change, biodiversity loss, and inequality. It encourages learners to engage in practical activities and solutions to address these challenges.

Learning within the ESD framework also aims to change behaviors and promote positive transformations in how individuals interact with the environment, contributing to sustainable development on both local and global scales.

2.2.2. The Relationship Between Education for Sustainable Development (ESD) and New Forms of Education

The International Framework of the Decade of Education for Sustainable Development (DESD) suggests that a comprehensive ESD program should integrate three key aspects: 1/ Cultural and Social Aspect: This involves issues such as human rights, peace and human security, gender equality, cultural diversity, intercultural understanding, health, HIV & AIDS, and new forms of governance; 2/ Environmental Aspect: This focuses on issues related to natural resources (water, energy, agriculture, biodiversity), climate change, rural development, sustainable urbanization, and disaster prevention and mitigation; 3/ Economic Aspect: This covers issues related to poverty reduction, corporate responsibility and transparency, and the reorientation of the market economy (Arjen E.J. Wals, 2010).

These three interconnected dimensions guide the development of new educational models, ensuring that education is aligned with the principles of sustainability and fosters a holistic understanding of the challenges facing the world today.

ESD integrates technology and innovative teaching methods such as project-based learning and experiential learning, allowing learners to access knowledge and develop essential skills. This trend improves education quality, supports personal growth, and fosters sustainable prosperity. Thanks to ESD, learners are prepared to face the challenges of the 21st century and participate in building a sustainable future.

UNESCO defines Education for Sustainable Development (ESD) as a process that equips learners with the knowledge, skills, attitudes, and values to act in addressing global challenges such as climate change, biodiversity loss, poverty,

and inequality, aiming to create a sustainable, equitable, and inclusive society (UNESCO, 2012).

A prime example is the use of the internet in organizations like the International Environmental Forum, where virtual conferences and online courses on sustainable development help connect members and provide knowledge and resources to the global community. Information technology, with its flexibility and cost-effectiveness, has created a powerful channel for enhancing education quality and contributing to the achievement of sustainable development goals.

In Vietnam, the Ministry of Education and Training issued the *“Plan to Implement Sustainable Development Goals (SDGs) in Education and Training until 2015, with a Vision towards 2030”* (according to Decision No. 2161/QĐ-BGDĐT by the Minister of Education and Training, dated June 26, 2017). This plan outlines specific objectives for sustainable development (SD) in the education and training sector. One of the key objectives emphasizes that all learners need to be equipped with the knowledge and skills to promote SD, including: education on sustainable lifestyles, human rights, gender equality, building a culture of peace and non-violence; implementing global citizenship education, adapting to cultural diversity while preserving national cultural identity, and promoting the role of culture in SD (Ministry of Education and Training (Vietnam), 2017).

The plan also addresses key solutions for implementing SD education, with a focus on *“embedding and integrating SDG awareness into activities aimed at raising awareness among educators, administrators, students, and the entire education sector regarding SD and SDGs in education and training”* (Ministry of Education and Training (Vietnam), 2017).

2.3. The primary education training program and the Vietnamese 1 course (training program)

The Vietnamese Language courses in the 2024 curriculum have been streamlined and arranged to be taught from Semester 1 to Semester 8, following a progression from theoretical foundations to practical applications and real-

world teaching scenarios. The 2024 Primary Education Training Program has been designed to be concise, scientific, and comprehensive, meeting the necessary knowledge requirements while increasing the duration of practice and internships to help students develop skills before entering the workforce.

The Vietnamese Language courses in the program, such as Vietnamese 1, Vietnamese 2, Vietnamese 3, and Practical Vietnamese, have a foundational and theoretical nature. They are taught in the early semesters to build a solid knowledge system of the language for students.

The Vietnamese 1 course, part of the primary education training program, is a compulsory course with 3 credits. Its content includes knowledge about language and linguistics, the nature, functions, origins, and development of language, language classification, language as a system of signals, and the classification of meanings into explicit and implicit ones. This course serves as a foundational subject, providing theoretical bases for teaching and learning Vietnamese within the training program.

3. Methods

We conducted a random survey of 182 students currently enrolled in the Primary Education program at the Faculty of Education, Tan Trao University.

The survey was administered via a Google Form, consisting of two parts: 1/ Demographic survey (age, cohort, living area); 2/ Criteria for evaluating students' use of technology in learning.

4. Results

4.1. Survey and Evaluation of the Application of Information Technology and Innovative Teaching Methods for Education for Sustainable Development through the Teaching of Vietnamese 1 Module for Primary Education Students at Tan Trao University

4.1.1. Survey Results Based on Demographic Criteria

A random survey of 182 students in the Primary Education program, based on demographic

criteria, was conducted to assess the impact of ethnicity on the use of information technology and innovative teaching methods. The results obtained are as follows:

Table 1. Ethnographic Factors Affecting the Use of Communication Technology and Innovative Teaching Methods

No.	Ethnographic criteria	Quantity	Percentage (%)
1	Age		
	18	75	41.21%
	19	61	33.52%
	20	32	17.58%
	>20	14	7.69%
2	Course		
	2022-2026	34	18.68%
	2023-2027	41	22.53%
	2024-2028	107	58.79%
3	Living Area		
	Urban	45	24.73%
	Rural	137	75.27%

From Table 1, the following conclusions can be drawn: 1/ Age: The age group 18 and 19 makes up the majority (74.73%), indicating that most learners are young, typically having a good adaptability to technology. The group over 20 years old accounts for only 7.69%, and they may face more difficulties in using technology or have less access due to

time constraints and study objectives; 2/ Course: Students from the 2024-2028 course make up the largest proportion (58.79%), suggesting that newer cohorts generally have more access to and use of technology, likely due to the rapid updates in the curriculum. The 2022-2026 course makes up the smallest proportion (18.68%), which may be related to limitations in technology or its lesser integration in earlier stages of the program; 3/ Living Area: Students from rural areas make up the majority (75.27%), possibly facing infrastructure limitations such as poor internet access or lack of learning devices. Urban students (24.73%) have better access to technology, often having an advantage in technology-based learning.

In conclusion, age, course, and living area are significant factors influencing the use of technology in learning. Strengthening infrastructure in rural areas and providing support for older students could improve learning outcomes through technology.

4.1.2. Criteria for Evaluating the Use of Technology in Students' Learning

We used a questionnaire with 6 multiple-choice questions and 1 open-ended question. The results are as follows:

No.	Content	Quantity	Percentage
1	How many hours per day do you use technology (computers, smartphones, software, etc.) for teaching/ learning?		
	< 1 hour	28	16%
	1-3 hours	119	68%
	3-5 hours	21	12%
	>5 hours	14	4%
2	What technology tools do you use?		
	Computer/Laptop	84	48%
	Smartphone	168	92,3%
	Projector	14	8%
	Interactive whiteboard	7	4%
	Online learning platforms (Zoom, MS Teams, Google Meet, etc.)	42	24%
	Learning management platforms (Moodle, Canvas, etc.)	28	15.40%
	Other (please specify)		

No.	Content	Quantity	Percentage
3	What is your purpose for using technology in teaching/learning?		
	Searching for materials	154	84,6%
	Designing presentations/Preparing assignments	112	61,5%
	Online learning	84	46,2%
	Doing group assignments	105	57,7%
	Testing and assessment	28	15,4
	Communicating with lecturers/students	49	26,9%
	Other (please specify)	28	15,4%
4	How do you think technology supports the teaching/learning process?		
	Very much	126	69,2%
	Much	56	30,8%
	Average		0
	Little		0
	Not at all		0
5	What are the greatest benefits of using technology?		
	Increased teaching/learning efficiency	140	76,9%
	Increased interaction	84	46,2%
	Time-saving	70	38,5%
	Access to diverse materials	119	65,4%
	Other (please specify)	7	3,8%
6	What challenges do you face when using technology?		
	Lack of equipment	84	46,2%
	Lack of technology skills	133	73,1%
	Unstable network connection	56	30,8%
	Access to diverse materials	28	15,4%
	High cost	56	30,8%
	Other (please specify)	7	3,8%
7	What suggestions do you have to improve the use of technology in teaching and learning?		
	- Upgrade infrastructure		
	- Balance learning and smartphone use		
	- Introduce creative practical content on technology platforms		
	- Provide training for students on using technology		
	- Avoid excessive reliance on information technology		
	...		

From Table 2, the following observations can be drawn:

Firstly, the majority of students use technology for 1-3 hours daily (68%), indicating its frequent integration into their learning. A small percentage (less than 1 hour: 16% and more than 5 hours: 4%) either do not fully utilize or overuse technology. Among the technology tools, smartphones (92.3%) are the most commonly used due to their flexibility. Computers/laptops (48%) support more complex tasks, while projectors (8%) and

interactive whiteboards (4%) are less commonly used due to infrastructure limitations.

Secondly, technology is primarily used for searching materials (84.6%), group assignments (57.7%), and online learning (46.2%), reflecting its crucial role in providing information and supporting collaboration. However, its use in assessment and evaluation (15.4%) is still underdeveloped. The greatest benefits of technology are increased teaching/learning effectiveness (76.9%) and access to diverse materials (65.4%), but challenges such as a lack of

technology skills (73.1%) and equipment (46.2%) need to be addressed.

Thirdly, the majority of participants (69.2%) believe that technology greatly supports teaching and learning. To enhance its effectiveness, infrastructure needs to be upgraded, technology skills training for students should be organized, and creative content should be introduced on digital platforms, while avoiding excessive reliance on technology in education.

4.1.3. Evaluation of Survey Results

a. Advantages

In Vietnam, the implementation of online teaching has been carried out quite early, especially with distance learning classes. The Ministry of Education and Training issued Circular No. 10/2017/TT-BGDĐT on the regulation of distance education at the university level, outlining the organization of teaching through the Internet (Ministry of Education and Training, 2017). On August 31, 2023, the Ministry also issued Document No. 4771/BGDĐT-CNTT on the application of information technology, digital transformation, and education statistics for the 2023-2024 academic year. The document identifies several key tasks, including the first task: "1. Digital transformation in teaching, learning, and assessment." Some key aspects of the task include:

a) Maintaining and maximizing the benefits of learning management system (LMS) software to connect schools, teachers, and students (and parents) while organizing educational activities; ensuring integration, connection, and data exchange between online teaching software and management software at educational institutions.

b) Strengthening the development of digital learning materials (including e-lectures, multimedia learning materials, e-textbooks, simulation software, and other learning materials; developing an online question bank for various subjects); contributing to the learning materials repository

and effectively utilizing the Ministry's shared learning resources in teaching and assessment.

c) Promoting regular online assessment; implementing periodic assessments via computer in areas that require and have the necessary conditions for execution (with plans and defined steps from pilot deployment to large-scale implementation in a suitable manner, ensuring quality and effectiveness).
d) Enhancing the training of teachers in digital skills; prioritizing training on work-related topics such as: using teaching software, developing digital learning materials, creating e-lectures, and skills for organizing online teaching.

e) Reviewing, investing in, and supplementing the purchase of computers for teaching Information Technology that meet basic standards (Level 2, according to Decision No. 4725/QĐ-BGDĐT, December 30, 2022) for teaching IT: A maximum of 2-3 students sharing one computer in primary schools; a maximum of 2 students sharing one computer in secondary schools; and each student should have access to one computer in high schools. It also focuses on utilizing computer labs for the school's professional activities and subjects outside of IT. Building studios (where needed and conditions allow) to develop digital learning materials and conduct online teaching (including computers, supporting equipment, and necessary software).

f) Effectively implementing an electronic library system (including library management software and a database for digitized books and resources serving teaching), interconnecting with digital learning repositories, and sharing digital resources among educational institutions, educational managers, and teachers (Ministry of Education and Training, 2023).

Tan Trao University (Vietnam) is one of the institutions implementing remote training plans (Plan 111/KH-ĐHTT dated March 27, 2020) and issued Decision No. 127/QĐ-ĐHTT

on February 22, 2021, on online training. The university proactively guided lecturers on using Microsoft Teams software and organized training sessions for both lecturers and students, ensuring the implementation of online teaching across departments and faculties.

With the strong trend of digital transformation in education, online teaching has become a solution that is not only suitable during the pandemic but also supports long-term and more flexible learning for students. Digital transformation helps optimize resources, supports students in easily accessing learning materials, and develops digital technology skills. At the same time, the university can manage and assess the learning process of students accurately and continuously through digital platforms. This contributes to the development of a modern learning ecosystem, aiming for interaction and sustainable development in education in Vietnam.

b. Challenges

In practice, both lecturers and students encounter several difficulties, including:

- Using teaching software is challenging for both lecturers and students, who find it difficult to master and use regularly.

- Practical activities, real-life experiences, research, and technology transfer in teaching are still limited.

c. Causes

- Infrastructure and facilities are still limited, not fully supporting teaching with communication technology and creative teaching methods.

- Some lecturers and students are not proactive in allocating time to learn about and apply educational software in teaching.

In conclusion, the application of information technology and digital transformation in education has provided opportunities for students to access materials, attend lectures, and participate in

discussions flexibly. However, many lecturers still face difficulties in using equipment, methods, and organizing online teaching, and have not fully exploited the potential of this approach.

4.2. Solutions for Applying Communication Technology and Innovative Teaching Methods to Education for Sustainable Development Through Teaching the Vietnamese 1 Module for Primary Education Students at Tan Trao University

4.2.1. Utilizing Educational Technology in Teaching the Vietnamese 1 Module

*** For Lecturers**

Promote a significant shift in educational models from traditional teaching to approaches incorporating technology and advanced teaching frameworks, such as:

- Implementing and expanding the SMART Education model to ensure teaching quality. Instead of merely providing knowledge and rigidly following teaching content, the focus should shift towards “training human resources and nurturing talent.” Educational institutions should prioritize skill development (e.g., information usage, knowledge creation, and decision-making), talent cultivation, and vision enhancement for learners.

- Adopt the “one learner, multiple programs, multiple campuses” model to work towards an educational environment promoting “life-long and “life-wide learning”. This approach emphasizes fairness and accessibility, offering equal educational opportunities for all, while fostering a connection between education and real-life applications.

Lecturers provide electronic lectures through E-learning platforms and software such as Quizlet. These lessons are designed as electronic lectures tailored to the objectives and content of teaching the Vietnamese 1 module for primary education, ensuring that the content is closely linked to practical teaching scenarios. Additionally, the lectures include discussion topics and practical

self-study content to enhance student engagement and applicability.

Lecturers can share electronic materials or guide students to access digital libraries, as well as connect with students from other institutions to broaden access to learning resources and meet the objectives of creating effective electronic lectures. Integrating multimedia into lessons: Lecturers can use teaching support software such as PowerPoint, Google Slides, and Prezi, along with other tools, to develop electronic lesson plans. By incorporating videos, audio, images, and text, lecturers create more dynamic and diverse lessons, contributing to improved teaching quality.

Example: When teaching the topic “1.1. Language as a Social Phenomenon”, the lecturer can embed links to short videos showcasing social phenomena, such as natural phenomena or clips from “The Jungle Book”. These links allow students to actively explore theoretical concepts, sparking their curiosity to delve deeper into the provided linguistic materials. This approach helps students grasp the content more profoundly and encourages them to ask questions related to the lecture.

Lecturers can leverage AI software to create analogous stories, motivating students to observe real-life events and rewrite them into realistic narratives. These stories can then be transformed into engaging videos using AI tools, making the lessons more dynamic and memorable, while solidifying the knowledge being imparted.

*** For Students:**

- Pre-class Preparation: Students should study lectures, textbooks, and educational games before attending class to familiarize themselves with the topics.

- Active Participation: Actively and proactively engage in lectures and fulfill assigned learning tasks before, during, and after class sessions.

- Self-learning and Creativity: Independently explore educational software to create technological products that align with the lesson

content assigned by lecturers, fostering innovation and practical application skills.

4.2.2. Expanding Multidimensional Interaction in the Vietnamese 1 Module Through Educational Software

The solution to expanding multidimensional interaction in the Vietnamese 1 module can be implemented by integrating educational software into the teaching process to enhance interactivity and encourage proactive participation from students.

By leveraging these tools, students and lecturers can engage in more dynamic and meaningful exchanges that deepen understanding and support active learning strategies.

*** For Lecturers:**

- Using Online Discussion Software: Use tools such as Padlet, Mentimeter, or Nearpod to allow students to share opinions, provide feedback, ask questions, and participate in group discussions during class. This helps students feel involved and have a voice in the lesson, while also developing critical thinking skills.

- Applying Quick Assessment and Evaluation Software: Tools like Kahoot, Quizlet, or Socrative can help instructors create short quizzes and learning games to assess students' understanding in real-time. These assessments not only help students reinforce their knowledge but also increase engagement and excitement in learning.

- Using Interactive Lesson Planning Software: Tools like Google Slides and PowerPoint with interactive features allow lecturers to create dynamic and engaging lessons. Students can actively participate by answering questions or interacting with the content within the presentation, enhancing focus and memory retention.

- Integrating Learning Management System (LMS) Software: Systems like Google Classroom and Microsoft Teams help lecturers organize learning materials, manage assignments, and track each student's progress. Students can communicate with their lecturers and peers flexibly, extending

interaction and supporting learning outside of class hours.

- Using Communication and Group Work Tools: Software such as Zoom, Microsoft Teams, or Google Sheets with features like breakout rooms allows students to collaborate in small groups and discuss lesson content. This approach facilitates idea-sharing, peer support, and strengthens the spirit of teamwork.

These solutions contribute to building a multi-dimensional learning environment, increasing interaction between instructors and students, while also motivating students in the Vietnamese 1 modul.

* For students:

Students need to listen attentively to lectures and actively participate in class activities such as answering questions, group discussions, and completing assignments. They should ask questions when something is unclear and share their opinions to expand their understanding. Taking notes on key points helps with memory retention and focus. Students should complete group tasks seriously and actively. Additionally, they can contribute feedback to improve the class and provide direct evaluations of the teaching and learning process after lessons.

For example, in the topic “1. Functions of Language” from Chapter 2, Nature and Functions of Language, the instructor assigns students in the AK11 Primary Education University class to present using Mind Mapping.

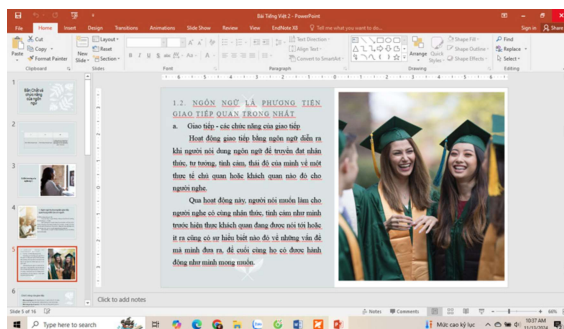


Figure 1. Presentation slide by a student of the AK11 Primary Education University class.

With the content “1. Language is a system of signals” from Chapter 4. Language as a system of signals, the instructor assigns the task of preparing a presentation using a mind map (for the EK11 Primary Education University class).

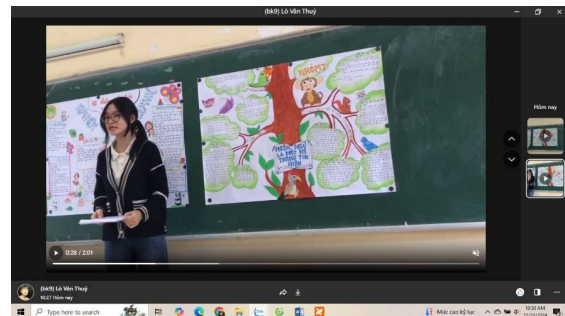


Figure 2. Presentation slide by a student of the EK11 Primary Education University class.

The groups will carry out presentation tasks and answer questions posed by their classmates. The critique group should ask questions to clarify theoretical issues as well as practical questions related to specific content. During the class, the instructor will monitor, adjust, and provide conclusions. Practical questions related to language theory will be encouraged.

4.2.3. Using Information and Communication Technology to Enhance Students' Self-Regulated Learning Behavior and Community Service Competencies Toward Sustainable Development Education Goals

Using information and communication technology (ICT) is an effective method to enhance students' self-regulated learning behaviors and their awareness of community service, aiming at sustainable development education goals. Through online learning platforms, students can manage their time, monitor their progress, and adjust their learning methods to achieve the highest effectiveness. Applications such as online forums, discussion groups, and project management tools help students develop collaborative skills while raising their sense of responsibility toward the community. Participating in community projects through digital platforms not only allows students

to better understand environmental and social issues but also inspires them to take action for a sustainable world.

*** For Lecturers**

- Guide students on how to use search tools and online research to find accurate information, analyze, and evaluate relevant content related to the subject matter and other related issues.

- Organize activities for students to develop digital content creation skills, such as creating digital content (videos, presentations) and publishing it online to share initiatives and sustainable knowledge with the community.

- Support students in time management and self-learning through applications that help them regulate their learning, such as:

- + Creating blogs and websites to share experiences: Help students share their learning

experiences, difficulties, and how to overcome them through platforms such as WordPress.org, Blogger, Wix, Medium, etc.

- + Guide students in creating diverse content such as: Articles sharing experiences (How to overcome challenges in learning; how to build good relationships with friends and lecturers; experiences in participating in social activities; effective time management); Educational stories and short stories that teach lessons; Videos and podcasts: Videos sharing experiences, short lessons on life skills. Podcasts featuring interviews with students, lecturers, and experts on psychological and educational issues.

*** For Students:**

- Actively engage in learning and enhance self-learning skills by completing assigned tasks.

- Create presentations and videos related to the lessons and assignments given.

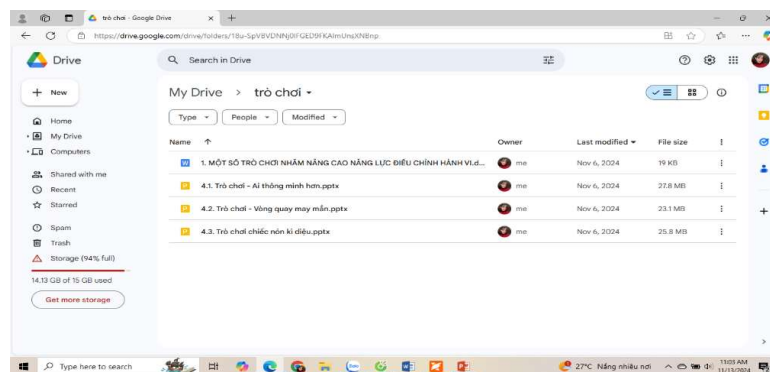


Figure 3: Illustration of a student assignment submitted via Google Sheet

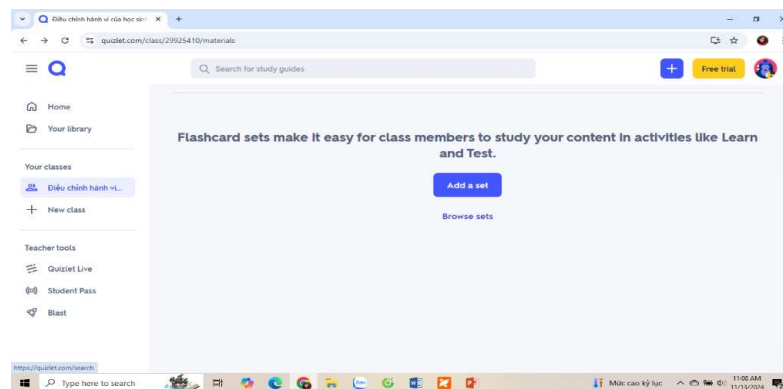


Figure 4: Illustration of a student assignment on learning behavior adjustment on the Quizlet platform.

5. Conclusion and Discussion

Sustainable development cannot be achieved solely through political agreements or financial and technological solutions; it requires a change in the values and behaviors of the community, helping individuals become more self-aware and make sustainable lifestyle choices. To accomplish this, education is the most important pathway. Therefore, at all levels of education, especially at the university level, we must prioritize education for sustainable development for students.

In conclusion, the application of communication technology and creative teaching methods in the teaching of the Vietnamese 1 module for students in the Primary Education program at Tan Trao University has proven effective in improving education quality and promoting sustainable development. Throughout the learning process, students not only gain knowledge in the subject matter but also develop technology skills, creative thinking, and awareness of sustainable education. This approach not only enhances teaching effectiveness but also equips students with the essential skills to become advanced primary school teachers who can make significant contributions to the development of sustainable education in the future.

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REFERENCES

- Arjen E.J. Wals. (2010). Education for Sustainable Development. Edita 2010.
- Central Committee of the Communist Party of Vietnam. (2013). Retrieved from Website: <https://moet.gov.vn/tintuc/Pages/doi-moi-can-ban-toan-dien-gd-va-dt.aspx?ItemID=3928>
- Ministry of Education and Training (Vietnam). (2021, 3 30). [chinhphu.vn](https://vanban.chinhphu.vn/default.aspx?pageid=27160&docid=203106). Retrieved from Website: <https://vanban.chinhphu.vn/default.aspx?pageid=27160&docid=203106>
- Ministry of Education and Training (Vietnam). (2023, 8 31). Retrieved from Cục Công nghệ thông tin: <https://e-ict.gov.vn/laws/area/CNTT-trong-GDDT/>
- Deloitte Consulting LLP. (2018). Global Human Capital Trends: The rise of the social enterprise. Deloitte University Press.
- Nguyen Quy Thanh, T. Q. (2024, 4 1). Technology. Retrieved from Bac Giang Province Boarding School for Ethnic Minorities: <https://dtnbacgiang.edu.vn/trang-chu/cong-nghe/tin-cong-nghe/nhung-xu-the-moi-cua-cong-nghe-trong-giao-duc.html>
- Thủ tướng Chính phủ. (2017, 1 25). Chính phủ nước Cộng hòa Xã hội Chủ nghĩa Việt Nam. Retrieved from Trang chi: <https://vanban.chinhphu.vn/default.aspx?pageid=27160&docid=188112>
- Documents of the Communist Party of Vietnam. (2021, 11 30). Retrieved from Communist Party of Vietnam Online Newspaper: <https://tulieuvankien.dangcongsan.vn/van-kien-tu-lieu-ve-dang/gioi-thieu-van-kien-dang/thuc-day-doi-moi-sang-tao-chuyen-giao-ung-dung-va-phat-trien-manh-me-khoa-hoc-va-cong-nghe-trong-van-kien-dai-hoi-3782>
- UNESCO. (2012). Education for suitable development: sourcebook. Paris: The United Nations Education, Scientific and Cultural Organization.
- United Nations. (2015, 10 15). United Nations. Retrieved from United Nations Department of Economic and Social Affairs: <https://sdgs.un.org/2030agenda>