

PERSONALIZATION OF LEARNING THROUGH THE USE OF TECHNOLOGY

Nguyễn Văn Nam¹

ABSTRACT

Personalized learning is tailored to each student's strengths, needs, and interests while ensuring the highest standards possible. Thanks to it, students' interests and abilities are engaged in authentic, real-world activities to promote the learning of content area standards. In order to do so, technology is the tool that makes personalized learning easier and more efficient. This research aims to apply technology to facilitate personalized learning to help students get better result of study. In this study, action research was employed to find out the theories of personalization and its practice, and then apply it to the situation of Dong Nai University. After testing the changes of the new approach, the research result showed that using technology to personalize learning in the environment of English learning proved more effective. It can be recommended for instructors to use in order to make students more interested in their learning and help them to improve skills needed for their future job.

Keywords: *Personalized learning, personalization, technology, students' interests*

1. Introduction

Vietnamese economy has increasingly been growing, which leads to the high standard of living and good quality of life for Vietnamese people. However, it requires that people are equipped with enough levels of necessary knowledge and career skills to meet the job requirements and social needs. In the competitive working environment, the 21st century interpersonal skills that are really essential for employees to perform well are mainly the skills of communication, collaboration, problem-solving, critical thinking and creativity. For this reason, education has been considered as one of the most important factors that contribute to the success of the future well-qualified employees and also the economic achievement of the government. For this reason, "... educators have been urged to prepare students for employment and to be entrepreneur-

ial in a global market. It is difficult when planning an academic career to know whether we [educators] should concentrate on just one of these elements, or be more reactive and adapt to the latest demand or trend, while attempting to keep the others up in the air." [1:1].

In order for students to have a good quality of learning, various and different methods of teaching have been updated and improved. Educators are regularly most concerned about how to make their students excellent in their study and future jobs. However, language educators have indicated several problems that affect English language teaching and learning in Vietnam, and the two biggest ones that influence the quality of teaching and learning are too large class size [2, 3], and hierarchy relationship between teachers and students [4]. In order to resolve the prob-

¹Trường Đại học Đồng Nai

Email: nguyennamav@gmail.com

lem of large or even extra-large foreign language classes, the support of technology through computer based activities could be a successful and effective way [5]. Also, the problem of “hierarchy relationship between teachers and students” would be solved by personalized learning.

2. Research Objective and methods

This research study aims at finding out the approaches of teaching that help solve the problems of larger size classes and hierarchy relationship between instructors and students, and its practices, and applying them in the right medium of teaching and learning at Dong Nai-University. The research method is designed as an action research of five-step process that includes (1) identifying the critical issue and research questions, (2) looking at the literature review and clarifying the theory, (3) planning a course of action which involves changing something in teaching practice, (4) carrying out the change, and (5) seeing what effect the change has made [1].

3. Content

3.1. Identification of educational problem and research questions

Learning environment at universities is completely different from high schools or primary schools. Most of students have to live far away from and to be independent of their parents, so they lack the care of their parents. Meanwhile, university educational system requiring students to earn academic credits is not similar to the educational system of high schools, which makes most students confused. In addition,

university educators think that university students are mature enough to make their own decision of study. They, therefore, do not pay much attention to their students. Moreover, the class size is large or even too large at universities, which causes difficulties for instructors to pay close attention to students. In another word, students do not expect to receive deep concern from their instructors. As a result, they get bad result of their study or even a few leave universities without informing their parents or schools of this. For these reasons, the research questions are raised as follows:

1. What can I (the present researcher) do to solve the problem of large-size classes?
2. What can I do to make my students more interested in their study and get better results?

These questions guide the researcher to find out the best solutions to the mentioned issues.

3.2. Literature review and clarification of the theory in research

Literature review helps to explore existing information in the field of research and provide the context for the researcher’s own research. The objectives of reviewing the literature are to explore the existing research to see if there are any problems stated and how to deal with them [6]. According to [5, 7], large language class size of 60 or 70 students could be managed by carefully designing class activities and with the help of computer-based activities. This will allow students to receive as much individualized instruction as they need

inside and outside of the classroom. However, this is less likely to be done in the context of the Vietnamese High Education System where the typical teaching method remains transmitting knowledge from teachers to students to prepare for the exam [8, 4]. The teaching in a large class with students of different levels of understanding and a white board, sometimes a tape player negate all the efforts to try new teaching methods of the teacher. For this reason, personalization of learning is potentially beneficial in terms of time, money and effectiveness [9].

When reviewing the literature, substantial research has shown that personalized learning is considered as a good way to make students more enthusiastic to their learning and the way to perform it well is using technology. We know that all learners have different abilities and experiences and will respond in unique ways to learning opportunities. An enormous challenge we face in our public education system is how to equitably recognize these differences and develop learning approaches that help all learners achieve. Creating tailored learning environments for each learner can increase equity by providing every learner what they need to be successful, regardless of ethnicity, first language, culture, socio-economic background, physical and mental abilities, or geography.

Personalized learning refers to instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner.

Learning objectives, instructional approaches, and instructional content may all vary based on learner needs [10].

Personalized learning is specifically tailored to each student's strengths, needs, and interests while ensuring the highest standards possible. Customization of education represents an important advance because it recognizes that students come from different backgrounds and have varied interests and ability levels. Personalized learning focuses on these elements:

- The pace of learning is adjusted
- Learning objectives, approaches, content, and tools are tailored and optimized for each learner
- Learning is driven by learner interests
- Learners are given choice in what, how, when, and where they learn
- Learning is often supported by technology [11].

A successful personalized learning initiative has the following characteristics:

- Students' interests and abilities are engaged in authentic, real-world activities to promote the learning of content area standards.
- Teachers take on the roles of facilitators and coaches in the classroom rather than the dispensers of knowledge.
- Students take control over the learning paths to achieve established goals, building self-efficacy, critical thinking, and creativity skills.
- Technology enables students' choices related to what they learn, how

they learn, and how they demonstrate their learning.

- Formative assessment throughout the learning cycle, supported by digital tools, helps teachers and students address weaknesses and build on strengths.

- Progress through subject area content is measured by the demonstration of proficiency in identified skills and understanding.

- Technology is integrated throughout teachers' and students' experiences to support learning [12].

Researchers emphasize personalized learning is not a replacement for teachers. Rather, it provides the data and strategies educators need to make better pedagogical and interventional decisions to allow students to learn in their own ways, at their own paces [12].

The potential power and benefits of personalizing learning are specified as follows:

- When the pace of learning is adjusted for each learner, all learners have the time needed to demonstrate mastery.

- When learning is optimized and tailored for each learner, and driven by learner interests, it can be more meaningful and relevant, which can lead to greater engagement and achievement.

- When learners are given more choice, they tend to take more ownership of their learning and develop the academic mindsets, learning strategies, and self-regulated learning behaviors that are necessary for meeting immediate goals and for lifelong learning.

- When learning is supported by technology, learners can receive more frequent and immediate feedback through formative assessments, quizzes, and checks for understanding with results provided to teachers and learners in real time.

- With the right tools, learning gaps that impede progress can be identified more quickly, allowing learners to close those gaps.

- The use of technology to provide teachers with the ability to tailor instruction to individuals allows teachers more time to provide targeted attention to learners who are struggling or who are progressing more rapidly than their peers, rather than being forced to “teach to the middle.”

When teachers can use technology to identify or modify existing resources more easily, teachers can then build stronger and deeper relationships with each learner and provide more resources for dealing with specific challenges. This can promote a greater sense of belonging among students by demonstrating that there are adults who care that they thrive [12].

New theories and approaches of teaching and learning “all seem to support the ideas of making use of technology to increase the effectiveness of teaching,... empowering students in their learning process,... bringing interactive, communicative and authentic tasks into the language classroom” as cited in [13:138-139].

It is seen from the literature review of personalized learning that using tech-

nology to help learners to achieve their learning goals and skills for their future jobs is essential. When we consider the systemic challenges posed by personalization, it is clear that without digital technologies, we are unlikely to be able to meet the needs of learners. If we are interested in creating personalized learning environments in which learners can create a coherent experience of learning in diverse locations, collaborate with experts in areas of personal interest, track and review their own learning across different sites and stages of education, have access to resources in forms and media relevant to their language skills, abilities and personal preferences, it is highly unlikely that we will be able to enable all of these activities without using the communication, archiving and multimedia affordances of digital resources [14].

In student centered classrooms, students meet core standards as they use various methods and work at different paces, based on their educational needs and interests. In this way, students learn how to learn on their own unique terms. Special needs students can get additional time and attention as technology tools afford them unprecedented access to resources. Gifted students can move quickly to accomplish required skills and then be engaged by more demanding projects. Students master concepts at their own speeds and in their own ways via one-to-one learning.

Collaborative learning represents another virtue of the personalized online world. In addition to one-on-one

learning, technology enables students to collaborate with one another and work with a range of interactive, instructional resources. These resources can include teachers, parents, peer tutors, volunteers, and other interested individuals. Students become engaged participants, spurred on by regular feedback and challenging assignments.

Personalized learning is not the digitization of traditional learning. It is the individualization of learning through use and mastery of modern digital tools and collaborative strategies among teachers, students, and peers who utilize the unique possibilities of the digital environment. Technology is the tool that makes personalized learning easier and more efficient.

Personalized learning does, however, require both a radical shift in the design of schooling and a better leveraging of modern technologies, so that in the course of daily teaching and learning activities, teachers may employ formative assessment methods to track learning needs and gains dynamically. These resources and strategies must be appropriate for each student's learning style, abilities, and interests in order for each one to succeed. Researchers show the benefits of using technology as follows:

- Technology tools, especially mobile devices, allow students to assert control over the methods by which they learn, thereby personalizing their educational experiences.
- Students can learn anywhere, anytime when they are connected to sub-

ject matter content by these mobile devices. Yet, simply providing technology to learners doesn't necessarily make their learning personalized. To achieve the satisfaction of being connected with content in meaningful ways, the learner must be at the center of the experience.

- Powerful, adaptive software can help fuel meaningful instruction. Online language laboratories, quizzes, lectures, and lessons can all make what students learn in the classroom more engaging and relevant. These tools help to put students truly in charge of how they learn, while teachers keep students on track, creating and discovering material to enhance the excitement of learning [15].

Using technology in personalized learning

Through the literature review of personalized learning, the role of technology is really important. The use of technology in the classroom is becoming increasingly important, and it will become a normal part of ELT practice in the coming years. There are many reasons for this:

- Internet access- either in private homes, or at Internet cafes- is becoming increasingly available to learners.

- Younger learners are growing up with technology, and it is a natural and integrated part of their lives. For these learners, the use of technology is a way to bring the outside world into the classroom. And some of these younger learners will in turn become teachers themselves.

- English, as an international language, is being used in technologically mediated contexts.

- Technology, especially the Internet, presents us with new opportunities for authentic tasks and materials, as well as access to a wealth of ready-made ELT materials.

- The Internet offers excellent opportunities for collaboration and communication between learners who are geographically dispersed.

- Technology is offered with published materials such as course books and resource books for teachers.

- Learners increasingly expect language schools to integrate technology into teaching.

- Technology offers new ways for practicing language and assessing performance.

- Technology is becoming increasingly mobile. It can be used not only in the classroom, lecture hall, computer room or self-access center; it can also be used at home, on the way to school and in Internet cafes.

- Using a range of ICT tools can give learners exposure to and practice in all of the four main language skills - speaking, listening, writing and reading [15].

Many students' school lives are filled with technology that give them mobile access to information and resources 24/7, enables them to create multimedia content and share it with the world, and allow them to participate in online social networks and communities where people from all over the world share ideas, collaborate, and learn new

things. For most young people, technology is part of their daily lives. It has been suggested that by the age of 21 the average person will have spent 15,000 hours in formal education, 20,000 hours in front of the TV, and 50,000 hours in front of a computer screen. Those young people with access to digital technologies are already using these resources to tailor their informal learning to their own interests, to access information of relevance to them, to communicate with people who can support their learning, and to share ideas and expertise within informal learning communities [16, 17].

Personalizing learning through project-based learning

Researchers indicated three concepts that helped me think about how personalized learning could enhance the great project-based learning.

Personalized learning helps students access content during project-based learning. Different students will have different needs in working towards the end goals of a project. A personalized learning approach grounds teachers in student needs as they work towards authentic products. By contrast, an approach that is not responsive to individual student needs might assume all students should work through the same activities as they build towards authentic products. Approaching project-based learning planning with a mindset of personalization helped make the skills and analysis required of real-world project-based learning more accessible to students along the way.

Project-Based Learning is a teaching and learning strategy that engages learners in complex activities. It usually requires multiple stages and an extended duration more than a few class periods and up to a full semester. Projects focus on the creation of a product or performance, and generally call upon learners to choose and organize their activities, conduct research, and synthesize information. Project-based learning is characterized by the following principles: (1) Builds on previous work; (2) Integrates speaking, listening, reading, and writing skills; (3) Incorporates collaborative team work, problem solving, negotiating and other interpersonal skills; (4) Requires learners to engage in independent work; (5) Challenges learners to use English in new and different contexts outside the class; (6) Involves learners in choosing the focus of the project and in the planning process; (7) Engages learners in acquiring new information that is important to them; (8) Leads to clear outcomes; and (9) Incorporates self-evaluation, peer evaluation, and teacher evaluation [18].

Generally, three phases can be suggested in conducting Project-Based Learning including planning, creating and implementing, and the processing.

In the "planning" phase, the learner chooses the project, locates the required resources, and organizes the collaborative work. Through these activities, the learner identifies and represents a topic, gathers relevant information and generates a potential solution. The second phase is "creating", or implementing the

project. This phase includes activities such as development and documentation, coordination and blend of member contributions, and presentation to class members. In this stage learners are expected to build a product that can be shared with others. The activities for the third phase, "processing" the project, include reflection and follow-up on the projects. In this stage, the learners share their artifacts in a small group or with the entire class, obtain feedback, and reflect on the learning process and the project. Learners share each group's or individual's project and exchange feedback [19].

It can be concluded from the literature review that using technology to personalize learning is confirmed by substantial research because it creates the environment of communication with students and educators, helps educators save time in lecturing and scoring papers, which facilitates educators to

spend more time caring each individual student in classes. Personalized learning supports with their project-based learning to improve their job skills such as skills of collaboration, communication, critical thinking and creativity. For these reasons, the present researcher believes to use technology to personalize learning and teaching.

3.3. Action plan involving the changes in teaching practice

Based on the literature review, a course of action is outlined to carry out the performance. The research was divided into three phases: The first phase is to test the Edmodo.com platform; the second phase focuses on applying theory to practice; and the third phase aims to check students' progress and make a comparison with their result of two groups of students: control group and experimental group in the research. The three phases are summarized as in table 1, table 2, and table 3.

Table 1: Phase 1: Testing the Edmodo.com platform

Schedule	Classes	Subjects	Job delivered
(1year)	CDTAAK39	Marketing	- Prepare lists of students,
Aug. 20 –	CDTABK39	Marketing	- Create paperless classes,
July 30,	DHNNAAK3	Marketing	- Let students register the paperless classes
2016	DHNNABK3	Marketing	- Create quizzes and let students take the quizzes
	DHNNABK3	Research	- Post some notices to paperless classes
	DHNNABK4	Research	- Test the function of polls
	DHSPAK3	Research	- Design and deliver assignment to students on Paperless classes,
	DHSPBK3	Research	- Test the application software
	DHSPCK3	Research	ScreenCast Omatic
	DHLTSPK4	Research	- Test project-based learning
	VB2NNAK1	Research	
	VB2NNAK2	Research	

Table 2: *Phase 2: Applying theories to practice*

Schedule	Classes	Subjects	Job delivered
1year	DHNNAAK4	Research	<ul style="list-style-type: none"> - Prepare lists of students, students' profiles, and create small groups - Revise rules of registration of students, - Create paperless classes, class groups, quizzes, lectures in PP, - Post lectures, assignment (including projects) to paperless classes - Check students' progress, give comments to students - Get feedback from students - Use the application software <i>Screencast Omatic</i> to make video clips - Design and deliver projects to students
Aug. 20	DHNNABK4	Research	
–	DHNNACK4	Research	
July 30, 2017	DHSPAK4	Research	
	DHSPBK4	Research	
	DHSPCK4	Research	
	DHLTSPK5	Research	
	VB2NNAK3	Research	
	DHNNAAK4	Marketing	
	DHNNABK4	Marketing	
	DHNNACK4	Marketing	
	CDTAA K40	Marketing	
	CDTABK40	Marketing	
VB2NNAK2	Pronunciation		
VB2NNAK3	Pronunciation		

Table 3: *Phase 3: Experiment with Control group and experimental group*

1 term	Control group		Traditional instruction
Aug. 20	CDTA41A	Marketing	- Prepare lists of students,
–	DHNNA05B	Marketing	- Check attendance
Dec. 30, 2018	DHNNA06A	Presentation	- Give lectures to students using PP
	DHNNA06B	Presentation	
	DHNNA07B	Research	- Use traditional assessment of the term including a regular test and a mid-term test
	DHNNA07D	Research	
Experimental group		Personalized instruction	
	CDTAB41B	Marketing	- Prepare lists of students, profiles
	DHNNA05A	Marketing	- Create paperless classes, quizzes on Edmodo.com
	DHNNA06C	Presentation	
	DHNNA07A	Research	- Prepare lectures in PP,
	DHNNA07C	Research	- Post lectures in PP and in video clips, assignments (including projects) to paperless classes
	DHNNA07E	Research	- Check students' progress, give comments to students,
			- Use new assessment by online test and projects
			- Get feedback from students
			- Compare the final results of the two groups.

3.4. Performance of the action plan in research

Tools used in carrying out the change:

Using platform of the Edmodo.com

The platform of Edmodo.com to manage classes is applied to practice. The purpose of using Edmodo.com in teaching process is to create the paperless classes that help teachers deliver assignment, give instructions to students, supervise the given assignment, control classes, exchange ideas, design different kinds of exercises, keep an eyes on and evaluate students' progress, enhance students' assessment, interact with students, and get feedback from students. This class also helps promote students' self-study at home.

Use of ScreencastOmatic software

Screencast Omatic software helps record lectures at home in the aim of making video clips for lecture presentations that are used outside class. Lecturers can create video presentations, upload them to You Tube and send their links to paper classes for students to download them and study them in advance at home.

Use of the sources available on the Internet

Use some websites that contain some interesting lectures available like YouTube.com related to the subjects taught in classes, and some other websites providing reference materials served for the course, post them to paperless classes for students to get access to the sources.

Use of the project-based learning method

Projects are delivered to groups of students in class after students covered

each unit. Students have to do the project in groups of four based on the teacher's instructions. Each project lasted for 1 week. When the students' projects are completed, each group has to report their output by recording it and creating a video clip that is posted in YouTube, and then sends the link to the online paperless class or they have to present their person to person report in classes.

Process of applying personalized learning:

For focused groups including 4 classes, at the beginning of the course, students were divided into small groups each of which has a leader. They were given the learning objectives, assessment methods, and instructions and class code to register the paperless classes that had been already created.

Projects related to the lessons or the course were regularly delivered to the group, assessed and marked during the course.

Lectures in Power point slides were posted; some lectures in video clips from Websites were also posted for students' reference.

Assignments, mini-tests, and mid-term tests were posted to paperless class for students to do online.

Polls were posted every week to get the feedback from students in order for the instructor to make adjustment of teaching methods and assessment techniques.

Systems of questions and results of the mid-term tests were reviewed after each course.

3.5. Effects of the changes made

In phase 1:

Platform Edmodo.com proved effective in managing paperless classes. Some features of Edmodo.com such as posts, assignment, quizzes and polls work well. Students can interact with instructors and other members of group in a friendly environment.

Screencast Omatic software was good at recording video lectures with PP slides and sound

Project-based learning showed its effectiveness in terms of building skills such as creation, collaboration, communication, critical thinking, and solving – problem.

In phase 2:

Platform Edmodo.com proved effective and reliable when using it with large number of students. The quiz in Edmodo.com used by the instructor to give students tests was reliable for a large number of students (about more than 400 students at the same time). The grading list of students were exported in excel sheet were good and easy. Students 'progress was completely checked. Video clips created with *ScreencastOmatic software* and other sources were posted to YouTube and the links were sent to the paperless classes for students' reference. The result of students after the course was improved.

In phase 3:

Attitude of students to personalized learning: students' positive attitude to personalized learning was considerably confirmed. When asked about how students feel about the course, almost all students surveyed concluded that the course was useful and interesting especially in their chosen major. None of them thought it was boring. Teaching

approaches employed with the support of technology proved to be effective and enjoyable. The results of the survey (N=107) revealed that 74.77% liked the paperless class very much; 23.36% liked it but not very much; only 1.87% (two students) did not like it. In the same vein, 49.53% felt that paperless class is wonderful and useful; 49% thought it was interesting, and only 0.93% seemed to be bored with it.

Learning objectives were mostly achieved. The survey (N=102) showed that almost every student got the articulated objectives of the course: 7.84% completely achieved the objectives, 63.73% got 70 percent of the objectives, 27.45% obtained 50 – 60 percent of objectives, and only 0.98% (one student) got less than 50%.

Assessment methods of the course showed clearly its effectiveness. Accordingly, 88.79% of students were pleased with the teacher's assessments for the course; 11.21% were not very satisfied. Nobody was unsatisfied with it. In addition, when students were asked if they were pleased with the result they got, 67.92% said they were very pleased; 30.19% were not very pleased, and only 1.89% (two students) was not satisfied with their results.

The result of evaluating students' progress also demonstrated students belonging to experimental group had better result of study than the control group. The result of 1st term final tests of the academic year 2018-2019 showed that classes in the experimental groups were higher than that of the control group. Table 4 clearly illustrates the point.

Table 4: *The result of the experiment with the control group and experimental group*

Subjects	Control group			Experimental group		
	Class	No. of students	Average score	Class	No. of students	Average score
Marketing	CDTA41A	22	4.60	CDTA41B	23	6.63
	DHNNA05B	41	7.70	DHNNA05A	45	8.70
Presentation	DHNNA06A	38	7.23	DHNNA06C	33	7.24
	DHNNA06B	33	6.90			
Research	DHNNA07B	46	5.07	DHNNA07A	45	7.22
	DHNNA07D	44	4.74	DHNNA07C	39	7.04
				DHNNA07E	49	6.35

Comparing the result of the experimental group with that of the control group, it can be seen that the results of the final tests in all of the classes belonging to experimental group are higher. In Marketing, class CDTA41B has much higher average point than class CDTA41A. Similarly, class DHNNA05A is better than the control group class DHNNA05B. In Presentation, the results of classes DHNNA06A and DHNNA06B that belongs to the control group are 7.23 and 6.90 respectively. That is a little low in comparison with the result of experimental group at 7.24. In Research, classes belonging to the experimental group gain far higher point than the control group. Particularly, the results of classes DHNNA07A, DHNNA07C and DHNNA07E rank at 7.22, 7.04, and 6.35 respectively. Meanwhile, the results of the control classes are 5.07 and 4.74.

It can be concluded that the results of the experimental classes are much better than that of the controlled ones.

4. Conclusion

In order to fully prepare students for the highly competitive labor market, it is inevitably essential for educators and university lecturers to honestly think of the effective and practical ways to equip students with professional, language, and study skills that are necessary and useful for their continuous studies and future jobs. One of the practical ways of doing it is to look at the students' objectives that highlight the development of learners' background, competence, strength, needs, and interest. From the positive viewpoint, personalized learning helps lecturers determine and adjust their teaching methods, select the right teaching material, and even choose the assessment forms to measure the outcome of students. Personalized instruction aims at helping students to achieve their learning objectives as well, and with the support of technology along with active learning activities such as paperless class, and project-based learning, lecturers can motivate students to achieve their learning objectives. Particularly, technology is used to facilitate the language learn-

ing. Applying technology to teaching English can save time of scoring the paper tests, make it easier for students to choose what, how, when and where they learn to achieve their learning objectives.

The practical applications of personalize learning proved its effectiveness through this. Students became more motivated and more interested in their study. Their knowledge, attitude, and especially skills of communication, collaboration, critical thinking, and cre-

ativity have been considerably improved. Their awareness of self-study was fostered. The outcome of their studies was highly evaluated and the learning objectives were achieved.

Because of the benefits and the effectiveness of using technology to personalize learning that have been demonstrated by previous researchers and through practice in this research, It is strongly recommended to educational practitioners, lecturers, and teachers.

REFERENCES

1. Norton, L. S. (2009). *Action Research in Teaching and Learning: A practical guide to conducting pedagogical research in universities*. New York: Routledge.
2. Hoang, Van Van. (2008). Nhung yeu to anh huong den chat luong dao tao tieng Anh khong chuyen DHQGHN (Factors affecting the quality of English education at Vietnam National University, Hanoi). *VNU Scientific Journal - Foreign Language*, 24, 22-37.
3. John, W. S. (2003). Focus Group Interviews. In V. Minichiello (Ed.), *Handbook of Research Methods for Nursing and Health Science* (pp. 447-461). New South Wales: Prentice Hall Health.
4. Tran, Thi Tuyet. (2013a). Is the learning approach of students from the Confucian heritage culture problematic? *Educational Research for Policy and Practice*, 12 (1), 57-65.
5. McCarthy, B. (2004). Managing large foreign language classes at university. *Journal of University Teaching & Learning Practice*, 1 (1), 5.
6. Upstate Library. (2018). Purpose of the literature review. Retrieved 20 Dec., 2018 from https://uscupstate.libguides.com/Literature_Review.
7. Giauque, G. S. (1984). *Teaching Extra-Large Foreign Language Classes*. ER-IC, ED 247763.
8. To, Thi Thu Huong. (2010). Sinh vien Viet Nam can chuan bi de du hoc tai cac truong dai hoc day bang tieng Anh o nuoc ngoai nhu the nao? (How do Vietnamese students prepare for study in English speaking universities overseas? *VNU Scientific Journal - Social Science and Humanity*, 26, 230-237.
9. Dagger, D., & Wade, V. (2002). *Objects. E-Learn 2002*. Paper presented at World Conference on E-Learning in Corporate, Government, Healthcare and Higher Education, Montreal, September 2002.

10. US Department of Education. (2010). *Transforming American Education: Learning powered by technology*. ED 04-CO-0040.
11. US Department of Education. (2016). *Future Ready Learning: Reimagining the Role of Technology in Education* (NETP). Retrieved 15 Dec., 2018 from <https://tech.ed.gov/files/2015/12/NETP16.pdf>.
12. Grant, P. & Basye, D. (2004). *Personalized Learning: A guide for engaging students with technology*. ISTE: USA. Retrieved 15 Dec., 2018 from <https://www.intel.ru/content/dam/www/public/us/en/documents/education/k12-personalized-learning-guidebook.pdf>.
13. Tran, Thi Tuyet. (2013c). Factors affecting teaching and learning English in Vietnamese universities. *The Internet Journal Language, Culture and Society*, 38, 138-145.
14. Green, H., Facer, K., Tim Rudd, T., & Dillon, P. (2005). *Personalization and digital technology*. The report on the seminar series 'Beyond the Broadband Blackboard: Digital Technologies and Learner Voice' held by Futurelab, Demos, Becta and Toshiba between December 2004 and February 2005. Available website: www.futurelab.org.uk/research/personalisation.htm.
15. Dudeney, G. & Hockly, N. (2007). *English with technology*. Essex, England, Pearson Education Limited.
16. Gee, J (2003). *What computer games can teach us about learning and literacy*. New York: Palgrave Macmillan.
17. Williamson, B., & Facer, K. (2003). More than just a game: the implications for schools of children's computer games communities. *Education, Communication and Information*, 4(2), 253-268.
18. Moss, D., & Van Duzer, C. (1998). Project-Based Learning for Adult English language Learners. ERIC Digest, ED427556. Available Website: <https://files.eric.ed.gov/fulltext/ED427556.pdf>.
19. Han, S. & Bhattacharya, K. (2001). *Constructionism, Learning by Design, and Project-based Learning*. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*. Available Website: <http://www.coe.uga.edu/epltt/LearningbyDesign.htm>.

CÁ NHÂN HÓA NGƯỜI HỌC BẰNG CÁCH SỬ DỤNG CÔNG NGHỆ TÓM TẮT

Cá nhân hóa người học nhằm đáp ứng với ưu điểm, nhu cầu và sở thích của sinh viên trong khi vẫn đảm bảo các tiêu chuẩn cao nhất có thể. Nhờ có nó, sinh viên có sở thích và năng lực được khuyến khích tham gia vào các hoạt động đích thực, trong thế giới thực để thúc đẩy việc học theo chuẩn nội dung. Để làm như vậy, công nghệ là công cụ giúp việc cá nhân hóa người học dễ dàng và hiệu quả hơn. Nghiên

cứu này nhằm mục đích ứng dụng công nghệ để tạo mọi điều kiện cho việc cá nhân hóa người học, nhằm giúp sinh viên đạt kết quả học tập tốt hơn. Trong nghiên cứu này, nghiên cứu hành động đã được sử dụng để tìm hiểu các lý thuyết về cá nhân hóa và thực tiễn của nó, và sau đó áp dụng nó vào giảng dạy tại trường Đại học Đồng Nai. Sau khi thử nghiệm những thay đổi của phương pháp mới, kết quả nghiên cứu cho thấy rằng sử dụng công nghệ để cá nhân hóa việc học tập trong môi trường học tiếng Anh tỏ ra hiệu quả hơn. Nó được khuyến nghị để giảng viên sử dụng nhằm làm cho sinh viên quan tâm hơn đến việc học của họ và giúp họ cải thiện các kỹ năng cần thiết cho công việc tương lai.

Từ khóa: Cá nhân hóa người học, cá nhân hóa, công nghệ, sở thích của sinh viên

(Received: 5/12/2018, Revised: 15/12/2018, Accepted for publication: 24/12/2018)