

The Status of Applying E-learning in Holding Students' Self-Study of the Subject *Education* in Pedagogical Universities in Vietnam

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Abstract *Education* is a subject that directly demonstrates occupational characteristics of teaching career, setting up an important professional foundation for teacher education at pedagogical universities in Vietnam. This subject equips teacher students with basic modern theories of education to create their pedagogical skills so that after graduation they can conduct well their teaching and education activities, enabling them to continuously improve their pedagogical capacity to meet the increasing demands of education. One of the new directions to improve the teaching quality of the subject *Education* is the use of E-learning to organize self-study activities for teacher students in pedagogical universities. In order to have an effective E-learning model, we conducted a survey on the reality of using E-learning in organizing self-study activities in the subject *Education* for teacher students of Vietnam's pedagogical universities. The results gained in the survey will be an important practical basis for schools to adopt E-learning methods in an appropriate and quality way.

Keywords: *status, E-learning, self-study, teacher students, the subject Education, pedagogical universities*

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1. Introduction

One of the current trends in teaching methodologies is the widespread use of information technology in teaching and learning, and organizing self-study through E-learning (known as electrical learning) is the specificity of that trend [1,2,3]. Thanks to the rapid developments in information technology and multimedia, E-learning has many potential advantages and is an indispensable trend in education and training in the 21st century. E-learning will help reduce the cost, time and efforts in learning, improve the learning experience for learners on the basis of using the Web and multimedia media such as images, sound, Video... E-learning promises to bring positive changes to the teaching process, meeting the requirements loaded in the "stormy" period of science and technology development nowadays [4].

In pedagogical schools, *Education* is a subject showing directly occupational characteristics, placing an important professional foundation for training teachers. This course equips students with basic and modern theories of education to develop their pedagogical skills so that after graduation they can conduct well their educational activities, facilitating them to continuously improve their pedagogical competence to meet the increasing demands of education [5,6].

In the present context, when teacher training universities have been conducting the credit-based training system with the increasing demands of students' self-study, it is urgent to find out specific measures to stimulate excitement, passion for students to learn *Education*, forming their skills to self-study and building up their research capabilities on their own. One of the new ways to improve the teaching quality of *Education* is to organize studying activities through E-learning. E-learning has the outstanding advantage of creating an open learning environment (this is a greater advantage than traditional teaching methods and self-study ways), also the capability of conveying fast impressively contents and visualization through a software interface combined with three elements: sound, text and images, promising to make a big difference in positive direction to students' self-study [7]. By doing this, every teacher student can study *Educational* knowledge, update the latest information related to the subject on their own, so that their interest, passion and their sense in learning being enhanced. Besides, E-learning also facilitates lecturers - students, students - students relationships in exchanging *Educational* information, their concerns and questions (which are currently being limited by space and time in the traditional face - to - face class) [8]. Self-study through E-learning also requires lecturers and students to train themselves with the information technology proficiency to meet the growing requirements of social development [9].

In order to have an effective E-learning model in teaching the subject *Education*, we conducted a survey on the reality of using E-learning in organizing self-study activities in the subject *Education* for teacher students of Vietnam's pedagogical universities. The results gained in the survey will be an important practical basis for schools to adopt E-learning methods in an appropriate and quality way.

2. Content

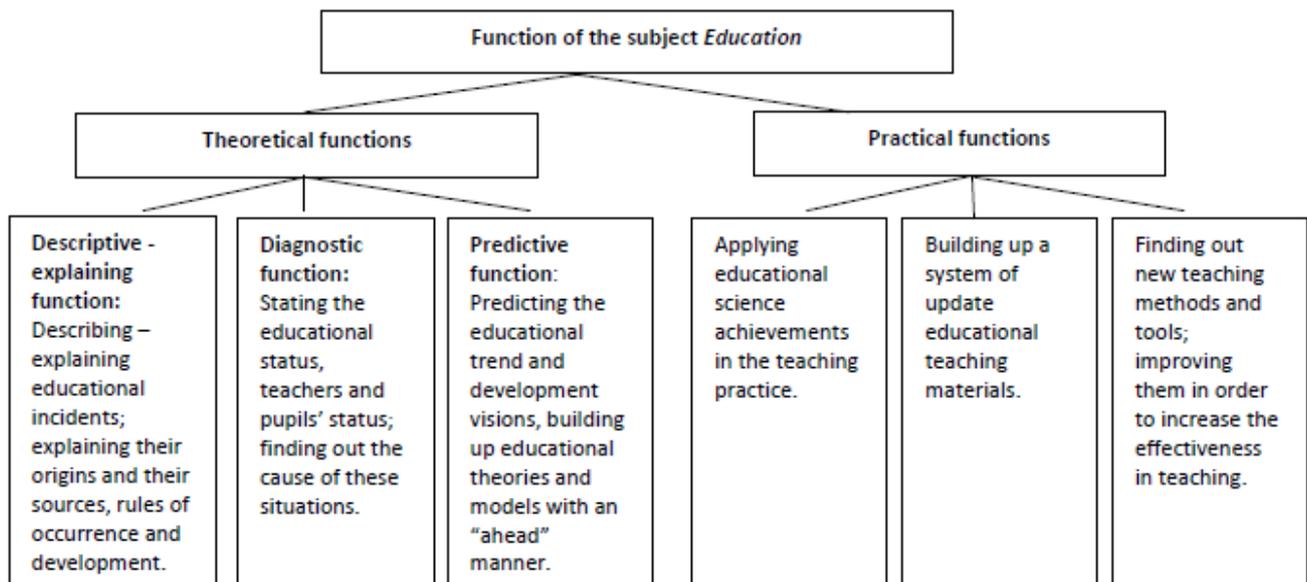
2.1. Role of the Subject *Education* in Pedagogical Universities in Vietnam

The primary task of pedagogical schools is to train the teacher staff for every school. The pedagogical school is a place for one kind of vocational training for the society -

the teaching profession. Teacher students as trainees are required to successfully complete their apprenticeship in their school years, as apprenticeship plays an important role in determining the quality of their later work. Learning "the teaching profession" does not mean to master basic academic knowledge of a specialized science but also to master certain vocational skills [5,6]. In order to form professional skills, learners must have the necessary knowledge of pedagogy through the subjects Psychology and *Education*. Thus, it can be seen that *Education* is an important basic subject with the professional manner which helps learners acquire the knowledge and skills in the future [6,9].

The subject *Education* is responsible for facilitating teacher students with basic knowledge, skills and attitudes about teaching and learning so that they can organize these activities in their career after graduation.

It is possible to visualize the general function of *Education* in the school by the following diagram [7].



Thus, *Education* is a subject with both of theoretical and practical manners. This subject has an abstract conceptual system, but the expression in reality very lively and close to students. Therefore, learning *Education* is not only about mastering academic knowledge but also to require learners to apply it to the reality of learning and teaching [9]. So that, it could bring about the actual learning outcomes for every pedagogical student [1,9].

2.2. Results of the Practice Survey

2.2.1. Overview of the Survey and Its Process

* Purposes of the survey

To assess the actual situation of using E-learning in organizing self-study of the subject *Education* for teacher students in pedagogical universities as a practical basis for proposing measures for this issue.

* The survey location

We conducted a survey on the status of self-study in the subject *Education* through E-learning at the following pedagogical universities: Hanoi National University of Education, Xuan Hoa Pedagogy University, Thai Nguyen University, Hong Duc University of Education (Thanh

Hoà). Specifically, we surveyed over 450 undergraduate students (as limited) and 46 teaching staff of teaching *Education* in those schools.

* The survey methods

We used the written survey method (with two sample forms for lecturers and students), the method of observation, and the method of interview (direct interviews). The collected data was processed through SPSS software.

2.2.2. The Survey Results of the Application Status of E-learning in Holding Self-study in the Subject *Education* for Students in Pedagogical Universities in Vietnam

Before conducting the survey, we have met and discussed with lecturers who are teaching E-learning on how to use E-learning in teaching in general and in universities in particular. Compared with other countries, E-learning in Vietnam is in the early stages of its development so E-learning is still applied more experimentally, not yet really developed and massively.

The results of live interviews have showed that: Some universities in Vietnam have started to deploy their teaching through E-learning, including the pedagogical

universities, and they have good results. Specifically, Hanoi National University of Education has an online training portal, which allows lecturers to place teaching plans, distribute online courses, exams and other related resources. This is a very meaningful job, especially in the credit-based training. However, as it is still in the early stages of development and usage of E-learning, there have been several limitations in the subjects, as well as resources and work systems, self-assessment on the on-line training portal. This can be overcome when the trainers cooperate to develop and improve the program contents, to design activities and exercises that are suitable for E-learning and online courses [10].

The reality has regarded a means of implementing E-learning for subjects specifically that has attracted many faculty and initially has applications in the teaching practice. Since Web technology has emerged with superior features, web-based learning has become a major form of E-learning [4,8,10].

Web browsers have proven their superiority in being applied in E-learning. They enable the integration of images, sounds and text with good quality; help us to build the lectures visually, lively. With the system of Web pages, learners easily find access and use information; lecturers easily create and distribute learning programs. Administrators can easily manage the students, faculty as well as the entire learning process. Web can help create such interactive environments as forum; chat-room serves very well for E-learning.

Within these forums, lecturers and students can post questions, discuss topics for everyone to see and respond. It also allows downloading programs, attachments, and links to useful websites to share information, help, and discuss topics which are related to the lessons. Forums create a flexible and diversified communication environment among the participants, helping to make full use of their potential and capacity. In the form of online chatting, teachers and learners can discuss directly with each other in writing, sound, and pictures [1].

Web-based training application can be conducted at a variety of levels, from simple levels such as providing subject information in the form of static websites to complex levels such as creating online virtual classes, providing multimedia lectures and providing synchronized online lectures. At present, most universities around the world develop web-based training at: managing lectures in a database, providing interoperability between tutors and learners; online tests, while actively using multimedia lectures to improve the quality of learning. Such a system is called "Subject Websites". Implementing E-learning as Website courses that provide lectures and interactive functions between teachers and students is appropriate to the conditions and environment of domestic universities as well as to the trend of E-learning applications in many universities around the world [10].

Based on exchanges and discussions with the faculty and students about E-learning and the ways in which E-learning is applied to the teaching practice, we have examined their opinions about the meaning of self-study in *Education* through E-learning, the results are as follows.

* *The status of organizing self-study in the subject Education through E-learning*

At present, some lecturers in national universities, including lecturers in pedagogical universities, have successfully piloted using Moodle to build websites with online teaching software to support teaching. With those websites developed, teachers are able to regularly communicate the students about the subject, providing them with a list of references and electronic materials, and homework and controlling the submission. Students are able to set up interactive forums between students - lecturers - students on a regular basis. Questions about the subjects are posted on the forum and the lecturers answer or students give out the answers by themselves as well as provide each other with resources related to the subject.

We have met and discussed with lecturers about some specific uses of E-learning in teaching practice today before conducting the survey. For their opinions, E-learning is mainly used in the form of "mixed-learning", with the aim of providing effective support for face-to-face teaching in order to maximize the strengths of each learning form. It is a studying form of combining two forms: online teaching and face-to-face teaching. In this way, E-learning is designed to support the teaching process and is only concerned with the contents and topics that best fit the strength of E-learning. The rest contents are still deployed in the traditional face - to - face teaching form to maximize its advantages. Face-to-face teaching with direct contacts between instructors and learners has a remarkable advantage is to help lecturers timely obtain the feedback, help students adjust his activities more reasonably and effectively. On the other hand, face-to-face teaching is also a favorable condition for lecturers to positively influence students' sentiment, willpower and energy. These two forms need designing in a suitable way with interrelation and complements to each other to improve the teaching quality [1].

Given with those characteristics, this is the form used in many training institutions in the world, including those with developed education. Thus, in the teaching process of the subject *Education*, lecturers may rely on the support of E-Learning to supply learners with theoretical and practical knowledge. It should be possible to make the most of the time spent in class and practical activities with which there are much direct contacts between lecturers and learners, and between learners. This combination will help us solve the time constraints which are required to develop learners' skills, thus contributing to improving the teaching quality in pedagogical schools [4].

In order for accurate and reliable survey results, besides handing out questionnaires and interviews, we have also used the observation method to verify the survey results, also the unity and objectivity in the data evaluation.

By introducing various forms of E-learning for lecturers and students to assess the level of use from high to low, the status of self-study in E-learning *Education* in pedagogical universities is shown in Table 1.

Through observation, we realized that the application of different forms and levels ranging from simple to complicated of self-study through E-learning in the subject *Education* have been paid attention by lecturers. They are conducted on a certain *Education* content to combine with traditional teaching in class. Recently, there has been a requirement for lecturers in credit - training - conducted universities that they should have detailed

syllabus attached to the specific teaching plan and posted in institutional websites for students' registration and tracking of their study plan. Some lecturers have considered this as a way to use E-learning to teach the subject *Education*. However, that is just the distribution of detailed study plans to students, but not the use of E-Learning in organizing self-study. Some common forms of applying E-learning to self-study such as online self-study in learning *Education*, connecting with open-source online learning materials of *Education*; developing synchronous or asynchronous exchange forums on online courses of *Education*, designing online tests assessment for students. These have not been systematically synchronously conducted.

In direct conversation with the lecturers, we have the awareness that they lecturers have applied certain forms of E-learning in their teaching process and organizing students' self-study of one part or one chapter in the course *Education*. This can be seen as an expression of the combination between online teaching and face-to-face teaching (in which online teaching plays a supporting role for face-to-face teaching). However, it is an "improvisation", a "seasonal" job and is only done in some lessons of the course *Education*. For example, there are a number of lecturers in Hanoi National University of Education during a short training session on how to use E-learning in teaching have practiced a few teaching sessions with E-learning by designing a lecture and piloting an experimental syllabus on institutional websites for students, but after the training, everything has been back to the same. Several young

lecturers have a habit of blogging to share with their friends, co-workers and students the problems in life, and sometimes they also solve students' concerns of the subject via blogs...

Some other lecturers sometimes pilot experimental softwares to support designing lectures to promote some *Education* lessons or chapters and then burn them to a CD. However, this is mainly a supportive feature for teaching in class, not really conducted in a large and effective scale.

Thus, self-study of *Education* through E-Learning was initially applied by lecturers at the pedagogical universities and mainly in a experimental, supporting manner for teaching *Education* in class. Objectively assessed through questionnaires, through observations in class attendance and direct interviews with lecturers, we found that most lecturers have actively utilized IT in the teaching process of *Education*; however, not all of them have the application of E-learning to self-study in the subject *Education* in a systematic, synchronous and effective way. In fact, how they assess the meaning of self-study in the subject *Education* through E-learning is shown in the following tables.

* *Opinions by lecturers and students on the significance of self-study in the subject Education through E-learning*

+ Firstly lecturers' evaluation shown in Table 2.

+ Then, students' opinions:

Students' opinions on the significance of self-study in the subject *Education* through E-learning are shown in Table 3.

Table 1. The status of organizing self-study in the subject Education through E-learning

No.	Forms of lecturers' organizing self-study in the subject Education	Frequence	\bar{X}	Ranking
1	Designing lectures with the support of computers and softwares posted in institutional websites	119	2.58	1
2	Designing instructional softwares of self-study in the subject Education with CD- ROM	73	1.58	5
3	Designing online self-study programs	74	1.60	4
4	Creating personal websites to update knowledge for learning search	77	1.67	3
5	Designing and holding forums to learning more on concerned issues in the subject Education	72	1.56	6
6	Designing automatically assessment examinations for students on computers	105	2.28	2

Table 2. Lecturers' evaluation of significance in holding self-study in the subject Education through E-learning

No.	Significance of self-study in the subject Education through E-learning	%	Rank
1	Creating students' passions and interests in the subject Education and making it more fascinating	80.4	2
2	Helping students more necessary technology skills	69.6	5
3	Adding to traditional learning ways with media technological high interactive learning forms	45.7	9
4	Give easy conditions for lecturers – students, students – students connection	82.6	1
5	Helping continuous students' learning anywhere, anytime enhancing self-study quality of the subject Education	78.3	3
6	Helping lecturers with easy speedy update and subject content distribution	56.5	7
7	Helping students actively change their learning pace to their own way	50	8
8	Forming students their self-assessment of their learning outcomes	73.9	4
9	Developing students' learning independence creativity and their habits of updating new useful knowledge	67.4	6

Table 3. Students' evaluation of significance in holding self-study of the subject Education through E-learning

No.	Significance of self-study in the subject Education through E-learning	%	Rank
1	Creating students' passions and interests in the subject Education and making it more fascinating	69.6	1
2	Helping students more necessary technology skills	48.7	6
3	Adding to traditional learning ways with media technological high interactive learning forms	47.1	7
4	Give easy conditions for lecturers – students, students – students connection	65.6	2
5	Helping continuous students' learning anywhere, anytime enhancing self-study quality of the subject Education	51.8	5
6	Helping lecturers with easy speedy update and subject content distribution	41.1	9
7	Helping students actively change their learning pace to their own way	45.3	8
8	Forming students their self-assessment of their learning outcomes	52.9	4
9	Developing students' learning independence creativity and their habits of updating new useful knowledge	61.6	3

Although there is a difference in order of meaning, the lecturers and students generally appreciate the meaning and effectiveness of organizing self-study the subject *Education* for teacher students through E-learning. This form may probably compensate for the constraints in terms of time and space caused by the traditional self-study form. There are numerous ways to use E-learning in self-study the subject *Education* for students such as the development of learning *Education* softwares on self-study instruction; creating the subject website; designing and organizing academic exchange forums... In short, E-learning will help lecturers distribute *Education* programs and materials, holding activities and learning interfaces in the modern dynamic technological environment of transmission, promising for a greater effect on the way of renewing methods, improving the teaching - learning quality in pedagogical universities.

** Difficulties effecting teacher students' self-study of the subject Education through E-learning*

In lecturers' opinions, holding teacher students' self-study in the subject *Education* through E-learning has not been spread and promoted for the following reasons (Table 4).

Survey results have shown that there are many difficulties with varying degrees of impact on the use of E-learning. The biggest impact is due to "Not yet spread institutional E-learning network", this is an objective obstacle for lecturers and students. The universities in Vietnam in general and the pedagogical universities in particular are building and improving the online training ports on campus. So using E-learning to organize self-study for students is in such difficulties as: there is not yet synchronous coordination between lecturers and students with the network administrator, the limited size of the online portal on campus... In addition, to ensure to organize self-study the subject *Education* through E-learning also requires lecturers and students to have the necessary equipment such as the Internet connected computers. For teacher students, this is also an obstacle that can not be overcome immediately. In fact, the rate of personal computers per students at pedagogical universities is not as high as some other universities.

In addition, to ensure self-learning through E-learning to be effective, there is an urgent requirement set for learners is to have high self-awareness. Learning through E-learning will still be remained without lecturers' direct controls, so if there is not students' self-consciousness, there will not positively bring efficiency. While students still keep the idea of "minority subjects", "learning just to pass", the use of E-learning for self-study also does not make sense.

In addition, other difficulties affect students' self-study in the subject *Education* through E-learning such as teachers' lack of time for designing and deployment, Being costly, Not yet skillful in Informatics, Lecturers' getting accustomed with traditional teaching... These difficulties, according to lecturers' recommendations, need to be overcome by "the School and the Faculty should encourage lecturers, in terms of material and spiritual support", "Educating lecturers with basic computer skills to design and use E-learning for self-study", "Each instructor should self-foster and update new perspectives"...

In a word, those constraints above have caused certainly students' self-study in the subject *Education* with the support of E-learning in pedagogical universities. If there is help from the school, lecturers' self-fostering, students' positive learning are enhanced, then surely that direction will achieve great effect, contributing to improve the teaching quality of the subject *Education* in pedagogical schools.

** Lecturers' evaluation of concerning factors to organize effectively self-study of the subject Education*

Research results are shown in Table 5.

Thus, basing on evaluating influences on students' excitement and quality of their self-study in the subject *Education*, also the comments on the status of their self-study skills, the lecturers have proposed some factors that need to concern and impact on students. The most necessary thing is to create the motivation for students; the right attitudes in learning, in other words, how to help each student themselves realize how meaningful and important the subject *Education* is forward their future career. Only on the basis of their awareness of that, each of them sets determination, energy, overcoming difficulties, obstacles to get the best learning process [10].

Table 4. Difficulties effecting teacher students' self-study of the subject Education through E-learning

No.	Difficulties effecting teacher students' self-study of the subject Education through E-learning	%	Rank
1	Lack of time for designing and deployment	47.8	4
2	Not yet spread institutional E-learning network	80.4	1
3	Lack of necessary equipment for students and lecturers	73.9	2
4	Getting accustomed with traditional teaching	13	8
5	Hardly designed subject contents	15.2	7
6	Not yet skillful in Informatics	28.3	6
7	Costly in design and use	43.5	5
8	Students' low self-awareness in studying	50	3

Table 5. Lecturers' evaluation of concerning factors to organize effectively self-study of the subject Education

No.	Concerning factors	Frequence	\bar{X}	Rank
1	Forming students' righteous learning motivation	135	2.93	1
2	Fostering reading material skills for students	121	2.63	3
3	Designing online self-study programs for students' anywhere anytime learning	130	2.82	2
4	Designing instructional self-study materials for students	119	2.58	5
5	Setting material basis for students' self-study	110	2.39	8
6	Changing assessment forms of students' learning outcomes	111	2.41	7
7	Building online academic exchange forums of subjects concerns	121	2.63	3
8	Lecturers' active innovative teaching methods to increase students' learning interests	119	2.58	5

Other reasons for the quality of students' self-study in the subject *Education* such as the students' lackage of self-study methods, still monotonous teaching forms, lack of learning materials and self-study instructions... The lecturers said that it is necessary to build new modern materials and methods instructions consistent with the development trend of science and technology. In fact, there are many online self-study programs and courses in various subject areas posted online to meet students' needs of studying and searching frequently. *Education* is a theoretical and very practical subject, so the development of online self-learning programs with open-source materials on the Internet, connected with the field of science, will make it more attractive, lively, close to students [10]. Moreover, given in credit - based training, requirements for students to spend on self-study at home are of a very high level. Therefore, if there is an online self-study program built and promoted on the Internet, it will be able to create favorable conditions for our students, letting them study at anytime, anywhere, enabling students to adjust their learning pace in the most reasonable way. Additionally, organizing such communicative and academic exchange forums like those will create a new learning form for lecturers and students in pedagogical schools [8,11].

A lecturer teaching *Education* at Hanoi National University of Education has shared: "We are very much in need of finding a new modern dynamic form of self-study for students alongside with traditional and familiar forms. It could be the use of information technology to build online self-study programs, or set up WebSite on the subject... Of course, conducting a new learning way always set for teachers and students new requirements. And they are new challenges that will be inevitably overcome, in order to reach the long-term goal of improving the learning quality in the subject *Education* in a real way".

* *Students' evaluation of concerning factors to organize effectively self-study of the subject Education*

The research results on students' evaluation of concerning factors to increase the quality of self-study in the subject *Education* has been shown in Table 6.

The status of lecturers and students' awareness of concerning factors has the differences in the utter rankings. According to lecturers, the most important consideration is to "Creating the right learning motivation and attitudes for students". Meanwhile most of students want their lecturers to focus on the problem of "Helping students being clear about main points of the lessons". We have interviewed a number of lecturers and students to explain the difference, most of the ideas have shown that students are so practical that their most concerned issue is the scores they would

obtain after the examinations. Therefore, they all want to know the main topics which are probably asked in the tests to facilitate their revision right before the tests, there is a correlation between this and the paper by Pasanagavarapu in 2018 and by Nortvig in 2018. But at the same time, lecturers usually pay attention to students' knowledge and vocational skills in a sustainable way through the subject *Education*. For doing that, the very first requirement is that students must understand the meaning of the subject *Education* with his future career, thereby forming them the learning attitude and motivation properly.

In addition to those differences, the students also appreciate the urgency of building online self-study programs, setting up Internet-based learning forums, etc. This is consistent with lecturers' opinions. The students have shared: "Now online learning is a common trend among many young people, if teachers develop their own tutorials, online self-study courses will make sense, giving us chances to learn this subject at any time we find it appropriate", "Your sharing through the forums will shorten the distance between lecturers and students, students and students, we all look forward to such forums to share the study experience and the concerned questions about the subject".

3. Content

Through a survey of the status, we have recognized:

- Lecturers and students have appreciated the significance of self-study in the subject *Education* through E-learning. However, in reality, there have not been many lecturers applying this due to some objective and subjective difficulties. The biggest difficulty is that the E-learning system in schools has not been expanded, teachers and students lack the necessary equipment, and they have not enough time to design and deploy that work.

- The survey results show that proposing measures to organize self-study in the subject *Education* for teacher students through E-learning meets the current conditions in pedagogical universities such as designing and organizing online self-study programs; online designing tests and students' online self-assessment; Creating an interactive environment between lecturers - students, students- students in self-study in the subject *Education*. Those measures are so meaningful that contributing students' excitement and self-interest in the subject *Education*, thereby contributing to improving the teaching - learning quality in subjects in pedagogical universities.

Table 6. Students' evaluation of concerning factors to organize effectively self-study of the subject Education

No.	Concerning factors	Frequence	\bar{X}	Rank
1	Creating the right learning motivation and attitudes for students	1123	2.49	4
2	Helping students being clear about main points of the lessons	1207	2.68	1
3	Designing self-study instruction softwares for students	1163	2.58	2
4	Designing online academic exchange forums	1052	2.33	5
5	Introducing websites concerning the subject for students' accessing materials	977	2.17	6
6	Proposing theme topics for students' research and classroom presentations	955	2.12	7
7	Building problematic cases and helping students solve them on their own	911	2.02	8
8	Designing computer - based questions, exercises, self-assessment items for students	1162	2.58	2

References

- [1] P. L. Rogers, (2002), *Designing Instruction for Technology Enhanced Learning*, IDEA GROUP Publishing.
- [2] IBM (2004), *Teaching and learning with Computer*.
- [3] Intel (2003). *Teach to the Future*.
- [4] P. Sanagavarapu, (2018), From pedagogue to technogogue: A journey into flipped classrooms in higher education, *International Journal on E-learning*, Volume 17, Issue 3, July 2018, pp. 377-399.
- [5] Woolfolk, Anita (2008), *Educational Psychology*, The Ohio State University.
- [6] Le Khanh Bang, (2002), *Teaching – learning methods at universities*, Hanoi National University of Education Publishing House, Hanoi.
- [7] Tran Thi Tuyet Oanh, (2012), *Building and using practical exercises in the subject Education according to competence development approaches to promote teacher students' professional skills*, Scientific research project, assigned by MOET, Code B2010-17-254.
- [8] Y. Hirata, (2018), E-learning courseware for language education in Japan its application and student perceptions. Source: <https://www.tandfonline.com/doi/ref/10.1080/02680513.2018.1454833?scroll=top>.
- [9] Le Huy Hoang, Le Xuan Quang, (2011), E-learning and its application in teaching. Source: <http://monhoc.vn/tai-lieu/E-learning-va-ung-dung-trong-day-hoc-2915/>.
- [10] Nortvig, Anne-Mette, A.K. Petersen, S.H. Balle, (2018), A literature review of the factors influencing E-learning and blended learning in relation to learning outcome, student satisfaction and engagement, *EJEL* Volume 16, Issue 1, February 2018, 46-55.
- [11] Bangou, F., Vasilopoulos, G., (2018), Disrupting course design in online CALL teacher education: an experimentation, *SAGE journals, E-learning and Digital Media*, May 2018, Volume 15, No. 3, pp. 146-163.