



THE STATUS OF SELF-STUDY ABILITIES OF STUDENTS AT VINH LONG UNIVERSITY OF TECHNOLOGY EDUCATION

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Abstract -Students' self-study activities have great significance for students' learning outcomes. This article presents the results of research on the current status of self-study skills of students at Vinh Long University of Technology Education. They include self-study planning skills, reading and document research skills, classroom self-study skills (directly studying with lecturers), self-studying skills at home (learning indirectly with lecturers), and skills in testing and evaluating students' self-study results. The research results aim to help students self-direct, self-adjust their self-study methods, and at the same time it gives advice to lecturers on how to foster self-study capacity for students to study more effectively.

Keywords: Self-study skills, learning outcomes, students, self-study.

INTRODUCTION

Vietnam always attaches the importance to human resources development and jobs as a priority in its socio-economic development strategy, with the goals to improve the skills and capacity of the workforce to keep pace with technological needs, and a highly developed economy in the Southeast Asia.

Vietnam is a rich and diverse long-standing culture with a tradition of study promotion and talent promotion. Vietnam's long-standing cultural tradition has always attached the great importance to learning throughout its history of building and defending the country.

Right after Vietnam gained its independence (September, 1945), President Ho Chi Minh launched a movement of learning widely among the people. That achievement continues today, our country has been recognized to universalize primary and lower secondary education and move towards universalization of upper secondary education. Today, Vietnam is building and developing a "learning society" through long-life learning activities of each citizen, which the state facilitates for them.

Long-life learning is a criterion, a skill that every person must have the will, aspiration and constant effort to practice right from the time they are still in high school, studying at university is the most basic. The learning methods of university students is fundamentally different from the methods of studying in high school that they have done before. Students' learning is mainly self-study or independent learning from identifying learning goals, planning and organizing the implementation of their learning tasks.

Accordingly, the role of university lecturers has changed from being a facilitator of the learning process to becoming a learning partner of students. Lecturers become guides, who can help students learn, research, apply knowledge, analyze information and data with a series of new and modern learning tools.

In addition, students' self-study always plays a great role in improving their ability to understand and absorb new knowledge in the process of studying and researching. Educational researchers who share the same views of the urgency need to cleverly organize students' self-study effectively as soon as possible. Self-study with effort, creative thinking has created conditions for understanding knowledge deeply, understanding the nature of truth. In the process of self-study, students always encounter many new problems and solve them by stimulating their own intellectual activity mainly. Self-study also plays a great role in the education and personality formation of students. Self-study will train students in the habit of independent thinking, independent problem solving in learning, research and success in life.



The status of self-study abilities of students at Vinh Long University of Technology Education is revealing certain limitations and weaknesses, which are expressed through low self-confidence and low self-efficacy in learning. Students do not have the skills and habits of self-study planning. They do not know how to self-assess their learning progress according to the set learning goals. They do not know how to apply study skills effectively, active learning skills still feel far away from them. Since then, the ability to study, self-control in learning is always difficult to reach the abilities of students... all of these factors have greatly influenced the learning outcomes of university students. Like many countries in the world, homosexual people are a minority group in terms of population (besides the heterosexual majority group) and increasingly clearly present in Vietnamese society. Overall, according to Vietnamese law, this group of people currently has almost all of the same rights as other heterosexuals. However, for various reasons, they have not yet been legally recognized for some rights, such as the right to marry the same sex, the right to have children, or to have recognized rights but no enforcement mechanism (gender transition)... Besides, some rights in other areas, such as criminal justice, civil rights, legal aid, gender determination, etc., still have barriers in practice. Along with the traditional idea of social classes, these things are often looked down on and treated badly. From that, it can be seen that the law on homosexual rights in Vietnam still has certain gaps.

CONTENTS

Vinh Long University of Technology Education is a public educational and training institution, directly managed under the Ministry of Labor, Invalids and Social Affairs, and professionally managed by the Ministry of Education and Training. Vinh Long University of Technology Education is designated by the State as a key university for technical pedagogical training in the country, invested by the project "Technical and vocational education". The university has trained and provided the society with high-quality human resources (vocational teachers and technical staffs) for the whole country with the number of thousands of graduates each year. The university is located in the heart of the Mekong Delta, located at 73 Nguyen Hue, Ward 2, Vinh Long City, Vinh Long Province

With a training scale of 26 majors at university level, 9 majors at master's level, and 02 at doctoral level. The number of existing students every year is nearly 10,000 in the university degrees. This study was conducted to answer the following questions: (i) How well do students have self-study in practice? (ii) To what extent are students' self-study planning skills? (iii) How is the student's ability to self-manage learning activities today?

The study was conducted from February to June 2021 at Vinh Long University of Technology Education. The research sample was selected by random sampling method (each faculty selected 40 students). The selected students randomly represented Vinh Long University of Technology Education faculties, including: Faculty of Electrical and Electronics Engineering (164 students), Faculty of Mechanical Engineering (383 students), Faculty of Information Technology (247 students), Faculty of Applied Biology (257 students), Faculty of Technical Education and Social Sciences and Humanities (340 students).

The study mainly measures the situation of students' self-study abilities such as: (i) self-study planning, (ii) implementation of self-study plans; (iii) self-review and self-evaluation of the learning results. The study results present the situation of Vinh Long University of Technology Education students' self-study abilities at the average level in the 4-level rating scale (excellent, good, average and weak).

The study proposes the introduction of a course in self-study methods for Vinh Long University of Technology Education students, in order to effectively improve students' self-study abilities. In addition, fostering and improving the quality of Vinh Long University of Technology Education teaching staffs and academic advisors, promoting the innovation in teaching methods, and innovating the testing and evaluation of students' learning outcomes are important issues to improve students' self-study abilities.

2. Some research on self-study



The issue of self-study has been long studied by educators. Confucius believes that what a learner learns from a teacher just deals with the most basic problems, while the acquisition of knowledge must be done by the learners on that basis. The philosopher Socrates (469-399 BC) noted that learners should "understand themselves", implying that learners must be aware of what they have, what they need, and what they should do to meet those needs. The educator Komensky (1592-1670) asserted that learners without learning aspirations and needs could not become talented. UNESCO recommends four pillars of education: "Learning to know, Learning to do, Learning to live together and Learning to be". Vietnamese Former President Ho Chi Minh emphasized that learners must know how to learn autonomously and regard self-study as the core of learning.

Author Ton Quang Cuong (2013) believed that self-study activities of university students can be considered from two angles: A type of teaching activity (in the system of organizational forms of teaching prescribed by law determined by the university); The second is a system of manipulative activities and conditions for implementing the pedagogical leadership process for activities performed by students [1]. The author Vuong Cam Huong (2018) said that students' self-study capacity is the ability to think for themselves and operate based on the coordination of students' knowledge, skills and attitudes to perform effectively learning activities [2].

Author Dinh Thi Tinh (2019) commented that the nature of students' self-study process is considered as a unique cognitive process with research character. Self-study is an element of the teaching process, which is the process of acquiring, processing, storing information, and transferring information into knowledge to complete learning tasks [3]. The self-study process goes through three stages: self-study, self-expression, and self-assessment that govern self-study. The stages correspond to problem discovery, problem-solving orientation, and learning problem-solving.

Factors affecting students' self-study activities which include: perception or concept of self-study; self-learning attitude (needs, goals, interests, will, self-discipline); self-study skills according to individual plans. Author Le Thi Ngoc Bich (2019) determined that students need to practice reading for self-study effectively, to study self-study materials. Each student needs to allocate 2 hours per day to read. There are some effective reading strategies for students such as: Underlining where necessary; Taking notes briefly, drawing diagrams and tables, asking questions when reading. Self-study takes place when there is a need for understanding. Factors of motivation, will, self-confidence, determining learning tasks are necessary [4].

The authors Phi Dinh Khuong & Lam Thuy Duong (2020a, 2020b) proved that the steps to form an intellectual motivation in self-study include: establishing an orientation basis for action, acting with objects or materializing, the act of speaking aloud without using objects, the act of speaking with a whisper, the act of shortening with the inner speech. Learning is the process of interaction between the subject and the environment. Learning is the comparison of individual intentions to satisfy learning needs. Learning takes place only in real existence. The learning process takes place in four steps: observational attention, memory, reproduction, and motivation [5]; [6].

Author Phan Thi Hong Vinh (2013) believed that self-study is learning with a high degree of self-discipline and positive attitude. Self-study takes place when there is a need, through work, there is a situation that needs to be solved, and there is quality when there is a teacher to guide [7]. Students' self-study skills meet the form of credit-based training, including: planning, paying attention to lectures, reading books, taking notes, making outlines, learning key ideas, concepts general knowledge, group discussion, self-check the results of self-study. The author Ta Thi Thu Hue (2020) believed that developing self-study skills for students has solutions, as follows: orienting students to self-study methods; improving the effectiveness of counseling and support students in the process of practicing self-study skills; implementing fairness in testing and evaluation of results and lecturers enhance innovation in teaching methods [8].

The above-mentioned studies mainly emphasize the concepts of self-study, the relationship between teaching and learning, the psychology of learners, the role of self-study, the demands of self-study students, the selection of learning materials, the organization of self-study, self-study methods... However, for the time being, there is no specific research on the field of self-study abilities of students at Vinh Long University of Technology Education



3. Research methods

This study was conducted by selecting the research sample from 5 academic faculties, and 40 students of each were selected to serve as the survey sample to assess the situation of self-study abilities. The random sampling was carried out by the research team as follows: Based on the number of students in each academic faculty, the research team made a list; drew the first random number (k) for the list of students participating in the study (the first draw was made from 1 to 10; and the remaining chosen students were determined by adding the distance unit of $(n(n-1) + k)$.

The study ensures that the students selected to participate in the study are similar in age (20 to 22 years old); students studying in the same course, students studying at the same university, students studying in the same field of training, students in the same class, etc. to make a general sample before selecting a random sample representing all students to participate in survey research.

There were 5 sets of research sample representing 5 academic faculties at Vinh Long University of Technology Education, each of which had 40 students, as follows: Sample 1, Faculty of Electrical and Electronics Engineering (40/164 students, 24.39%); sample 2, Faculty of Mechanical Engineering (40/383 students, 10.44%); sample 3, Faculty of Information Technology (40/247 students, 16.19%); sample 4, Faculty of Applied Biology (with 40/257 students, 15.56%); sample 5, Faculty of Technical Education, Social Sciences and Humanities (40/340 students, 11.76%). The total number of research samples is 200/1391 students, amounting to 14.38%.

This study was conducted through 5 sets of survey tools to assess students' self-study skills of the university with 37 questions, specifically: The first toolkit: Survey of self-study planning skills has 6 questions. ask (from 1 to 6); The second toolkit: a survey of reading and research skills with 6 questions (from 7 to 12); The third toolkit: survey on self-study skills in class (directly studying with teachers) has 6 questions (from 13 to 18); The fourth toolkit: self-study skills survey at home (studying without direct contact with teachers) has 11 questions (from 19 to 29); The fifth toolkit: skills to test and evaluate self-study results has 8 questions (from 30 to 37).

The survey scale includes 4 levels including: Good (4 points); Fair (3 points); Average (2 points); Fail (1 point). To evaluate and adjust the relevance and scientific level and complete the survey toolkit the research team conducted a test of the survey tool on 20 Vinh Long University of Technology Education students (not belonging to the selected survey sample). In the next step, the research team carried out a formal survey on the selected sample to collect research information (after testing and completing the survey toolkit in step 1).

The study used the tool to test the reliability of survey data on the level of self-study skills of Vinh Long University of Technology Education students through data halving method. This method was performed using the Spearman-Brown (rSB) formula. Formula: $r_{SB} = 2 \cdot r_{hh} / (1 + r_{hh})$, where rhh is the parity correlation coefficient, $r_{hh} = \text{CORREL}(\text{array1}, \text{array2})$. If $r_{SB} \geq 0.7$, the data is reliable; or $r_{SB} < 0.7$, the data is not reliable.

To measure the concentration and dispersion of survey data on the level of self-study skills of Vinh Long University of Technology Education students, the research team used the measurement tools including: Mode (Mode - Mo) - the most frequent value in the score series; Median - the point in the middle in the ordinal sequence of scores; Mean (Mean) - the average of the scores. The gap value of the mean score (through 4 levels) $(\text{Maximum} - \text{Minimum})/n = (4 - 1)/4 = 0.75/4$ points. Fail (average score is 1.0 - 1.75/4 points); Average (average score is from 1.76 - 2.5/4 points); Good (average score is from 2.51 to 3.25/4 points); Good (average score is from 3.26 to 4.00 points)

To compare data on students' self-study skills among Vinh Long University of Technology Education academic faculties, the research team used the "Chi-square test" because of discrete data. The method was to calculate p-value (p-value), "Chi-square test" value at: <http://people.ku.edu/~preacher/chisq/chisq.htm>.

The achieved result was compared with the reference value: if $p \geq 0.001$, the correlation is not significant (the data is unlikely to be random), which means that the result is manipulated by researchers; if $p < 0.001$, the correlation is significant (the study results are subject to randomization).



4. FINDINGS AND DISCUSSION

Firstly, the results of data verification: The results of verifying the reliability of survey data on self-study skills of Vinh Long University of Technology Education students show that: The rSB values of student groups of the surveyed faculties were above 0.99 (standard level is 0.7). It is concluded that the collected survey data were at a high degree of reliability.

Secondly, the results of measuring the concentration and dispersion of the survey data:

+ About the concentration of research data: The Mode value, the survey scores on self-study skills of surveyed students in the faculties all reached 3/4 points. The Median value, the median scores of the score series of survey results regarding self-study skills of surveyed students were in the range higher than 2/4 points, but less than 2.06/4 points. There was an insignificant difference in the mean scores between the surveyed faculties. The average value of the score series of survey results on self-study skills was at the average level (the average scores was in the range of 1.76 - 2.5). There was an insignificant difference in the mean scores between the surveyed faculties.

+ About the dispersion of research data: The value of standard deviation - Stdev of the surveyed faculties shows that there was a homogeneity in the scores of the questionnaires (Stdev of academic faculties was from 0.62 to 0.65). This shows that the survey scores of the questionnaires had a very low degree of dispersion.

Thirdly, the average score measurement results

+ Students' self-study planning skill: It includes the contents regarding the determination of the knowledge to be achieved; skills to be acquired; selection of learning materials; selection of learning materials and equipment; identification of the time to complete the learning goals; determination of learning methods and forms. The average score of planning skills was 2.01/4, a low average. This shows that, in the process of self-study planning, Vinh Long University of Technology Education students faced many difficulties in determining the time to complete the self-study goal with effective methods and forms. Vinh Long University of Technology Education students still carried out their self-study, but the self-study planning was new to them. Studying without planning would lead to a lack of initiative in learning. The role of the self-study planning is to anticipate the goals, content, methods, and time of implementation for effective self-study. Simultaneously, self-study planning helps foresee situations in which the environment changes so that learners can respond and implement the plan to achieve the planned goals.

+ Material reading and research skill includes the following contents: Defining clear reading goals which involve reading-writing combination, horizontal reading, fast reading, slow reading, and very slow reading. The survey results of the situation of "material reading and research skill (before class)" of Vinh Long University of Technology Education students had an average score of 2.24/4 points. There was not much difference in mean scores between the groups of students of the Vinh Long University of Technology Education surveyed faculties. Vinh Long University of Technology Education students' material reading and research skill were evaluated at average level. This is one of the very important skills of self-learners, especially university students. Material reading and research skill would greatly assist students in their effective self-study. In this regard, the skill of "reading very slowly" should be most prioritized in practice because this is the "read-to-learn" skill.

+ In-class self-study skill includes: Maintaining order, staying calm, being patient, empathizing, respecting... everyone in the class; taking notes of (writing or drawing quickly) the content delivered by lecturers; actively selecting the necessary content to take notes through the lecturers' critical thinking; raising issues to be clarified in the lesson; actively participating in solving learning problems in class (raised by lecturers or friends); Taking notes of unresolved problems in class. The survey results of the situation of in-class self-study skill (directly with lecturers), had an average score of 2.00/4 points (the average score in the rating scale). Students' initiative for in-class self-study was still very limited, which was reflected in their initiative in self-taking notes of classroom learning content and giving problematic situations to be addressed in class. Taking notes and raising problems in class are very important skills for students' effective learning. However, these skills have not received carefully attention for practice by students.



+ Self-study skill at home includes determining the place, form, content, time for self-study and self-studying the lesson content before going to class: The survey results of the situation of "Self-study skill at home" of students were assessed at the average level (2.25/4 points). Self-study at home is an important element of self-control as well as the determination to overcome difficulties with diligence to achieve the highest learning results. Self-study habits at home largely determine the learning outcomes of students. Self-studying the content of the lesson before going to class is very important, which is an active and autonomous activity in self-study. It is very important to read and study the materials in advance to clarify the learning goals, contents and methods, especially preparing tools to test and evaluate their own learning results. The tools for evaluating the learning results is also the tools for evaluating the level of learning achievement as planned. Tools for testing and evaluating the learning outcomes include: Tests after each lesson or each chapter of the course; and the final test at the end of the course (the evaluation tools present the appropriate content, form, time, and evaluation criteria).

+ Vinh Long University of Technology Education students' skills in self-review and self-evaluation of self-study results: Survey results had the average level (1.95/4 points). Specifically, in terms of self-review and self-evaluation of self-study results after class, the average score was 2.08/4 points; with regard to skills in self-review and self-evaluation of results at the end of the lesson or at the end of the chapter, the average score was 1.90/4 points; for skills in self-review and self-evaluation of self-study results at the end of the course, the average score was 1.86/4 points. Students' practice in self-review and self-evaluation of the learning results is the last activity in the implementation process of self-study plan (planning, implementation of the plan, and evaluating the implementation results). However, this can also be seen as a stepping stone for planning. It is because the results of self-evaluating the implementation of the self-study plan will act as the basis for the self-correction and self-improvement of the next more effective self-study plan.

In summary, the self-study abilities of students at Vinh Long University of Technology Education are currently at an average level (2.07/4 points) and are reflected through skills, as follows: self-study planning skill (2.01/4 points); material reading and research skill (2.24/4 points); in-class self-study skill (1.91/4 points); self-study skill at home (2.25/4 points); skills in self-review and self-evaluation of self-study results (1.95/4 points).

Fourthly, results of measuring the p-value in the research data


Table 1: Survey results

FACULTIES	GOOD (4 POINTS)	FAIR (3 POINTS)	AVERAGE (2 POINTS)	FAIL (1 POINT)	TOTAL
ELECTRICAL-ELECTRONICS ENGINEERING	0	13	19	8	40
MECHANICAL ENGINEERING	0	13	18	9	40
INFORMATION TECHNOLOGY	0	13	19	8	40
APPLIED BIOLOGY	0	12	18	10	40
TECHNICAL EDUCATION AND SOCIAL SCIENCES-HUMANITIES	0	13	18	9	40

The survey results show that: no student was rated at the highest score (4 points); the numbers of students rated 3 points in the research groups were very similar (12-13/group); the numbers of students rated 2 points in the research groups was very similar (18-19/group); the numbers of students rated 1 point in the research groups were very similar (8-10/group).

Bảng 2: p-value

Chi-square	0.446
degrees of freedom	12



p-value	0.99999986	Higher than 0.001
Yates' chi-square	0.134	
Yates' p-value	1	

For discrete research data (Good/Fair/Average/Fail), the article used the "Chi-square test" on the internet software. Research results show that the found p-value was 0.99999986, which was larger than the standard $p = 0.001$, which proves that the above survey data was collected by random, without any external influence on the surveyed students. The correlation between the groups and the survey contents was significantly random according to the research topic.

5. Some solutions to improve self-study skills for students

In order to ensure the self-study ability for students, lecturers need to pay attention to the following measures:

First, raise awareness among students about the place, role, and importance of self-directed learning in ensuring and enhancing quality of learning, habit formation, and long-life learning is essential for today's students;

Secondly, strengthen the teaching organization by teaching how to teach students is key, aiming at forming self-study and self-research capacity for students, helping students get effective learning tools.

Thirdly, always explore, research, exploit and guide students to strongly apply new, active and highly effective study skills.

Fourthly, lecturers actively guide students in self-study planning techniques, organize the implementation of self-study plans and self-assess and evaluate self-study results to adjust their self-study activities.

Fifthly, students carry out effective self-study, organize personal study diary according to the given plan, in order to track the learning progress according to the defined goals.

CONCLUSION

Each person's self-study skills are a decisive factor to an individual's learning outcomes. Self-study habits are the basis for building and forming habits, effective self-study habits, long - life self-study habits, and building a long - life learning community that society expects. Students' self-study skills are formed and trained as the basis to successfully accomplish that goal in the most effective way.

In order to support students to study with good results, we suggest that the school should pay attention to training and fostering students' self-study skills in a strategic and effective way right from the moment they step into the lecture hall. . Those skills are: (i) Self-study planning skills; (ii) Skills in reading and studying documents; (iii) Self-study skills in the classroom; (iv) Self-study skills at home; (v) Skills in self-review and self-evaluation of self-study results

On the other hand, in order to foster and train students to have effective self-study skills, the university needs to study this issue into a specific subject, officially promulgated in the school so that all students can access, study and practice in an orthodox way. That is, the subject of self-study methods of university students. Improving the quality of teaching staff and academic advisors is also a factor to improve students' self-study ability in a solid and long-term way.

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