

Factors Affecting Students' General Study Results: A Typic Research At The K61 Course Of Construction Management University

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Abstract: In addition to being trained in in-depth knowledge of the subject, each student is reinforced by the school, and teaches general subjects at the university level. "General" are subjects for first-year and second-year students when entering university. Usually general subjects including Philosophy, Political Economy, Scientific Socialism, Party History, General Law, Psychology, Statistical Probability... are taught in most academies, college. "General" subjects are theoretical subjects, difficult to learn, have to memorize a lot and "difficult to understand", often considered boring by students. However, it is the general subject that will help you have logical thinking and good methods of studying your specialized subjects. General subjects are the foundation for later subjects at the university level. Construction Management is one of eight majors being recruited and trained in the Faculty of Economics and Management of the University of Water Resources. After graduation, students and trainees will have the ability to manage and operate the activities of enterprises or related fields of construction activities, have professional knowledge, methods and bravery in implementation, construction business management; have certain knowledge of economic development and integration issues. General subjects provide a foundation for students of Construction Management to prepare to study specialized subjects later, but the awareness and interest in studying these subjects is not good, leading to poor results.

Keyword: learning, learning results, students, construction management.

1. Introduction

President Ho Chi Minh once said: "We must learn, we must try to learn a lot. If we do not study hard, we cannot make progress. No progress is regression. The more society develops, the more work we do. The more sophisticated the machine is, the more knowledgeable I am. If I don't learn, I'll be backward, but if I'm backward, I'll be eliminated, and I'll eliminate myself." Therefore, studying for us Vietnamese people is the most important and sacred work. To have a comprehensively developed country, the country requires a force of young intellectuals with high expertise and working capacity, efficiency and professionalism. And the students themselves are those young factors. To do that, students must

constantly strive to study and cultivate more knowledge to be proactive and creative in their work, contributing to building a strong country. It can be said that the university environment is a place to train high-quality resources and talents for the country. Therefore, students' learning problems are always extremely urgent issues for the development of the country. Understanding the factors and aspects affecting students' learning is extremely important in today's society.

The university environment is a completely new environment, gathering students from different provinces and cities. Where students with different living conditions, different learning environments gather and grow together under one roof. The university environment requires students to have great self-discipline and personal efforts. However, many students today still

cannot achieve their desired results despite their best efforts, especially for freshmen who are just taking their first steps. under a very strange and independent learning environment. The reason may be that their learning methods are not really correct, or it may also be due to many different factors of society that directly affect the learning and training results of students. Families, teachers and especially themselves do not know exactly why.

2. Theoretical and practical basis for learning general subjects

2.1. Theoretical basis

2.1.1. The basic concepts

a, The concept of the subject

Subjects are the constituent units of a training program. A course is a collection of knowledge about a particular area of expertise and is a complete unit that is taught and assessed within a semester.

In the regular university training program, the subjects are divided into compulsory subjects and elective subjects. In which, the compulsory subjects belong to the general knowledge blocks, the basis of branches and specialties; Elective subjects in the field of basic and specialized knowledge.

Compulsory subjects are subjects and modules in the training program that contain the main contents of the group of disciplines, majors and majors that students are required to complete satisfactorily - with certificates from other majors. courses, if any, to be considered for graduation.

b, The concept of general subjects

General subjects are compulsory subjects arranged at the beginning of the training program, containing important, prerequisite and necessary content (the "foundation" type of knowledge) to help students have able to absorb the professional knowledge and skills well in the later part of the training program.

2.1.2. Features of general subjects

General course for freshmen, sophomores when entering university. Usually general subjects including Philosophy, Political Economy, Scientific Socialism, Party History, General Law, Statistical Probability... are taught in most academies, universities, colleges in Vietnam.

These are theory-heavy subjects, abstract, difficult to understand, have to memorize a lot, often considered boring by students. Not only that, because they just moved from high school, the learning method is still new, so many young people can't keep up, many of them have to re-study and retake the exam. However, it is the general subject that will help you have logical thinking and good methods of studying your specialized subjects. General subjects are the foundation for later university courses.

Many people and many students have prejudices about general education or general subjects at university. We naturally think that if it is "general" and there is no speciality or specificity, general education is somewhat "lower". In fact, every program of study in higher education involves the completion of a series of courses called "general education". At universities in the United States, General Education or General Education subjects are part of an educational program that provides a broad understanding of the sciences and forms the basis for the development of knowledge, abilities, and skills. civic behavior. Foundation courses can take many forms, including foundation, advanced, and mixed practice.

2.1.3. The role of general subjects

Knowledge in general subjects can be called "the secret of heaven and earth", so it is in the most general abstract form for all possible fields. Any subject or content in the training program of an industry or major is carefully calculated, has a complementary role to meet the amount of knowledge and skills needed upon completion. For example, a subject that many students find "difficult" such as Marxist-Leninist philosophy does not seem to have anything to do with the majors of students in the economic - technical block, but in fact this subject has a relationship. closely related to both the field of study and later work that many students later realize.

Besides, the general subjects are also the foundation for many other subjects as well as the orientation of learning and research in the lecture years such as: reading a lot, preparing knowledge, being ready to give presentations. Thereby, skills such as independence, teamwork, public speaking will be formed.

2.1.4. Factors affecting the learning outcomes of general subjects

Learning outcomes in general subjects depend on many factors, which are divided into two groups: Group of factors inside the subject of the learner, group of factors outside of the subject of the learner.

a, Internal factors:

- Health: Learning is a mental activity, the result of selective observation and listening. Therefore, learning is affected by health. Poor health greatly affects the absorption process. If going to class, poor health reduces the ability to concentrate, the ability to remember
- Psychology: psychologically happy, excited, more blood is brought to the brain, the human brain processes information quickly, and has high receptivity. Psychological factors also affect the way the problem is viewed. Good psychology makes us see learning as a pleasure, study more enthusiastically. On the contrary, when psychologically bored, people have many negative thoughts, mental stress, reduced ability to concentrate, see studying as a burden that negatively affects learning performance.
- Hobbies: Interest in learning is born in a subject that increases students' receptivity and patience for that subject, allowing us to try harder in our favorite subject. to get good results. Making yourself able to enjoy many subjects as well as making the subjects you don't like become less boring is an important thing to increase learning efficiency.

b, External factors:

- Family: Family plays a huge role in shaping the development of each individual. It can be said that family is a very important factor affecting human learning. Family academic traditions form an important foundation in an individual's academic career. Family atmosphere also affects learning. A happy, warm and happy family is the spiritual motivation to help students focus on learning to achieve high efficiency. In addition, an economic family will provide their children with adequate and convenient facilities for learning.
- Relationships: A student will learn better when he has good relationships with his peers. First of all, if you play with good friends who have learning ability, it will

create competition and promote the individual's learning process. At the same time, create a good learning environment for yourself. We also learn a lot of good things from our friends.

The teacher is a guide to help us understand the content of lesson. Having a good relationship with teachers helps us to be interested in learning, no longer feeling disgusted. At the same time, when having a good relationship with the teacher, students will not feel shy when asking for the teacher's help in learning. As a result, learning efficiency is greatly increased.

- Class schedule, study materials: The schedule at the University promotes self-discipline and hard work of students. For high school students, the schedule is the same for the whole week, only the subject is different. Going to university, studying in shifts and classes makes students less tired and boring, but it is difficult to afford private jobs that require a lot of time. In addition, this class schedule also consumes a lot of travel time for students. At university, students have to prepare lessons by themselves, study the content of the lesson, search for documents. Finding documents also causes many difficulties for students. Because there are so many different sources of materials, each document again states different views on the same issue, causing confusion and errors among students. This has a huge impact on learning.

2.2. Practical basis

2.2.1. In the world

Researches on education and student learning outcomes have been interested by many researchers around the world since very early. There are many studies that have shown from many angles and different issues that impact on student learning outcomes.

By common knowledge, we all know that student learning outcomes have a wide range of influencing factors. According to Evans (1999), factors affecting student learning outcomes include 5 different groups: demographic characteristics, psychological characteristics, organizational factors, social factors and outcomes. learning before.

Research by Checchi & ctg (2000) investigates factors related to the average score of students of 5 universities in Italy, showing that: gender, age, place of residence, academic results in high school, type of secondary school and family characteristics have a strong relationship with academic performance. However, the degree of impact of these factors is different between universities.

Also in the study "The Relationship between Family and Academic Achievement: Evidence from Liberal Arts Colleges with Full Tuition Subsidy Programs" by Stinebrickner et al (2000, 2001a, 2001b) conducted 3 studies at the University of Berea. The first study on the relationship between family income and academic performance. In this study, the regression results show that the average score of students in the first semester is related to the ACT test scores and the student's family income, in addition, female or black students have average scores. low army. The second study suggested that there is a negative relationship between academic performance and the number of overtime hours worked per week, the study also demonstrated that the average score depends on race and gender. The third study, found an impact of female roommate household income on average scores.

Author Ali (2013) has studied the factors affecting the learning outcomes of students, including 9 factors including: Gender, Age, Type of school, Income, Tutoring or not, Number of hours School, Boarding or non-residential. The analysis results show that only 3 factors are statistically significant: age, income and number of hours of study.

Theo Young et al. (2003), the knowledge acquired by students is the general assessment students about the knowledge and skills they have acquired in the process of studying specific modules. The scale of acquired knowledge consists of 3 observed variables: Students have gained a lot of knowledge while learning, Students have developed many skills while studying, Students can apply what they have learned.

Instructor competence plays an important role in teaching and learning (Biggs, 1999) because it helps students understand course objectives and expectations. The capacity of teachers also helps students understand the value and benefits of

learning, which in turn will help students enjoy the learning process for better learning results.

Thus, research on factors affecting student learning outcomes is very diverse with many approaches and different conclusions. Collectively, the studies have shown the relationship, the level of impact of factors on student learning outcomes in most groups of factors belonging to demographic characteristics, social characteristics and social characteristics. economic point. There have never been any international studies that have studied the subjects of general subjects in university training programs, so this study has analyzed a number of factors affecting the results of general subjects of students. members and this is the novelty of this study compared to other studies.

2.2.2. In Viet Nam

Some research works in Vietnam such as the study of author Huynh Quang Minh (2010) "Factors affecting the learning outcomes of regular students at the University of Agriculture and Forestry in Ho Chi Minh City" show that the level of reference material, time in class, self-study time, average score in the first stage, number of times of drinking in a month, entrance exam scores have an impact on students' academic results, However, this study only studied the general learning outcomes, but did not go into the general subjects of students at the University of Agriculture and Forestry in Ho Chi Minh City. Ho Chi Minh.

In addition, there are many factors that affect the learning results not by the students themselves like the above factors but also by many other factors. Ma Cam Tuong Lam (2011) with the study " Factors affecting student satisfaction with facilities and equipment at Da Lat University ", contributing to clarifying the importance of facilities. facilities and equipment of the school for the teaching and transfer of knowledge, as well as the learning activities of students. The topic focuses on exploiting the current situation of facilities and equipment and the effects of facilities and equipment on the quality and effectiveness of teaching and learning in the education system in general and in the education system. higher education in particular, thereby looking for effective solutions for the process of renewing and upgrading the facilities and equipment of educational institutions.

Focusing on research on the quality of higher education from the point of view of customers using higher education services. Research results show that there are 4 factors affecting student satisfaction: Competence of staff; School management; Condition of school facilities and equipment; Competence of the teaching staff. From there, it can be seen that the school's facilities, equipment, and teachers are also one of the factors affecting the learning outcomes of students. Facilities and equipment will serve the teaching and learning process of students more effectively, creating convenience and good impression for students entering the school. Facilities and equipment of the house A full and comfortable school is a good criterion for students to believe in the value of at the school, when there is confidence in the school they are studying, students will have better motivation to learn.

Nguyen Thi Thuy Trang (2010) "Surveying the relationship between concepts and study habits at university with learning outcomes of students at the University of Natural Sciences, Vietnam National University, Ho Chi Minh City", Master thesis, Hanoi National University. The study collected 795 survey samples, with 92.3% of the respondents agreeing that the concept and study habits affect students' learning results. At the same time, 89.2% of the respondents agreed that the teacher's teaching style has the greatest influence on students' concepts and learning habits. The ANOVA test showed that there was a difference in the learning outcomes of students by each academic year, from the first year to the fourth year with 95% confidence. And a practical conclusion from research practice is that students' conception and study habits believe that they only study to pass, study to get a degree to work, others think that they learn to know, to understand. and apply knowledge in practice. Some students still keep the habit of studying in high school the way teachers read and write down.

Nguyen Van Luat (2007) in the topic "Study of will in self-study activities of students of the Department of Psychology, University of Social and People's Studies" focused on analyzing a number of factors factors affecting the willpower effort in students' self-study activities, topics survey 245 samples. The actual research results show that the learning activities of Students are motivated by many different

motivations. There is a hierarchical arrangement motives are in the following order: Knowledge improvement engines are placed first, then there are social motives such as making parents happy, being beautiful, having merit good work, ... It can be seen that students' learning motivation is associated with orientation later career, not the abstract general motive. The conclusion of the study indicates that there are There are many factors affecting the will of students in learning activities. In which, the subjective factors from the student's side such as: Learning motivation; A sense of responsibility to family and society are strong influencing factors more volitional efforts in their learning than other factors Agency: Method of examination and evaluation of the exam; Activities to support learning of student's socio-political organizations such as Youth Union, Student Union pellets.

According to Assoc. Prof. Dr. Tran Kieu (2005), in any sense, learning outcomes are also reflected in the degree of achievement of teaching goals, which includes 3 big goals: awareness, behavior motion, emotion. For each subject, the above objectives are concretized into goals of knowledge, skills, and attitudes. In fact, there are many perspectives on assessing student learning outcomes at colleges and universities. Learning results can be through the cumulative grade point average consisting of the average academic score plus the converted training score. Or study results can also be self-assessed by students after their studies and job search results. In this study, learning outcomes were defined as students' own overall assessment of the knowledge and skills they have acquired while studying specific subjects at the school.

Nguyen Thi Mai Trang and ctv. (2008) determined that the biggest cause affecting the learning outcomes of the first-year students in the subjects is the faculty's competence factor group consisting of three main components: i) Teaching style, ii) Organizing lessons in the lecture hall, iii) Interaction in the classroom.

2.3. Lessons Learned

In general, the above researchers pointed out the factors affecting the learning outcomes of students. However, the object of the research is the general learning outcomes of students without mentioning the influencing factors on the learning

outcomes of general subjects, in which the differentiating factor is the general subjects being studied. Teaching is mainly the first year, so there is a change in the learning environment and learning methods between high school and university. Therefore, this study has summarized the groups of factors as follows: including 02 groups: (1) Pre-university course, family level, student's lesson preparation; (2) current school

accommodation, academic advisor support, study group participation, level of absenteeism

Based on an overview of domestic and foreign studies, the study builds an expectation table of factors affecting the learning outcomes of general subjects of K61 students majoring in Construction Management.

Table 1. Sign expectation table of influencing factors

TT	Factors affecting	Expected
first	Pre-university course	+/-
2	Family level	+
3	Student's lesson preparation	+
4	Current accommodation while studying	+
5	Academic advisor support	+
6	Join a study group	+
7	Degree of absence from school	-

3. Research Methods

3.1. Hierarchical Logit Regression Model

Considering a regression model with a continuous dependent variable Y with a scale, this variable is classified in the order from $j = 1, 2, 3, \dots, J$ and X is denoted as a vector p in the direction of Independent variables. Suppose $\pi_j = \Pr(Y = j)$ is the probabilistic outcome of the class j . Therefore, the cumulative probability function of Y can be expressed as:

$$\Pr(Y \leq j) = \pi_1 + \pi_2 + \dots + \pi_j, j = 1, 2, \dots, J (*)$$

Take the logarithm of the cumulative probability function (called the logit)

$$\begin{aligned} \text{Logit}[\Pr(Y \leq j)] &= \log\left[\frac{\Pr(Y \leq j)}{1 - \Pr(Y \leq j)}\right] (**) \\ &= \alpha_j + \beta X, j = 1, 2, \dots, J-1 \end{aligned}$$

where, α_j is the intercept coefficient (also known as the cutoff point) satisfying the condition $\alpha_1 \leq \alpha_2 \leq \dots \leq \alpha_{j-1}$. β is the coefficient vector of the independent variable, describing the effect of the independent variable on the odds ratio of the j or smaller class j (Long and Freese, 2006, 2014). The coefficients in equation (**) will not be consistent if the OLS estimates are

used, so they must be replaced by the maximum reasonable estimate LM.

3.2. Recommend model

The hierarchical logit model to evaluate the impact of factors affecting the learning results of general subjects of K61 students majoring in Construction Management is proposed as follows:

$$\begin{aligned} Y_{kqhocht\alpha p} &= a_0 + a_1 \cdot x_{khoihoc} + a_2 \cdot x_{giadinh} + a_3 \cdot x_{chuanbi} + a_4 \cdot x_{choo} + a_5 \cdot x_{covanht} + \\ &\quad a_6 \cdot x_{hocnhom} + a_7 \cdot x_{nghihoc} + u_i \end{aligned}$$

The dependent variable is the result of studying general subjects (denoted by $Y_{kqhocht\alpha p}$)

Independent variables include 7 variables included in the model, including pre-university education, family qualifications, student preparation, current accommodation while attending school, and support from academic advisors. practice, participation in group study, the degree of absenteeism.

pre-university study mass variable ($x_{khoihoc}$) is the determination of the student's pre-university course

level variable ($x_{giadinh}$) evaluates the educational level of the student's family,

receiving the value 0,1,2,3,4,5 corresponding to the levels from primary (level 0) to above university (level 5).

The student's lesson preparation variable ($x_{chuanbi}$) is the variable that evaluates the student's preparation before class, taking the value 1,2,3. In which the value is 1 if the student does not prepare the lesson before going to school; equal to 2 if students read the new lesson first, review the old lesson and do the exercises; 3 if students find relevant documents online, prepare the content required by the lecturer and discuss with the teacher.

The variable current residence at school (x_{choo}) is the variable that determines where students are staying to support their studies.

Turn the academic advisor's support ($x_{covanht}$) evaluates the level of academic support for students of the academic advisor, receiving the value 1,2,3,4,5 corresponding to levels from very dissatisfied (level 1) to satisfied (level 5).

The group participation variable ($x_{hocnhom}$) is a dummy variable that determines whether or not students have joined the group, taking the value 1 if yes and 0 if not.

The variable absenteeism ($x_{nghihoc}$) is the variable that evaluates the student's absence from general subjects, taking the value 0,1,2. Where the value is 0 if the student is not absent from school; equal to 1 if students take 1-2 days off; equal to 2 if students take 3-4 days off.

4. Research status and results

4.1. Status of learning general subjects

4.1.1. Overall learning results

K61 students majoring in Construction Management have relatively low overall first-year academic results compared to other majors in the Faculty of Economics and Management. In the academic year 2019-2020, students of K61 majoring in Construction Management took an average of 31.2 credits and the average number of credits failing in both classes of Construction Management 1 and Construction Management 2 was 6.9 credits.

For the average academic score of the first year, the average cumulative GPA of 96 K61 students majoring in Construction Management is 2.0 points, about (1.5 - 2) and (2 - 2.5)) has the most students, with 38 students for each level. There are 3 students with cumulative GPA above 3.0.

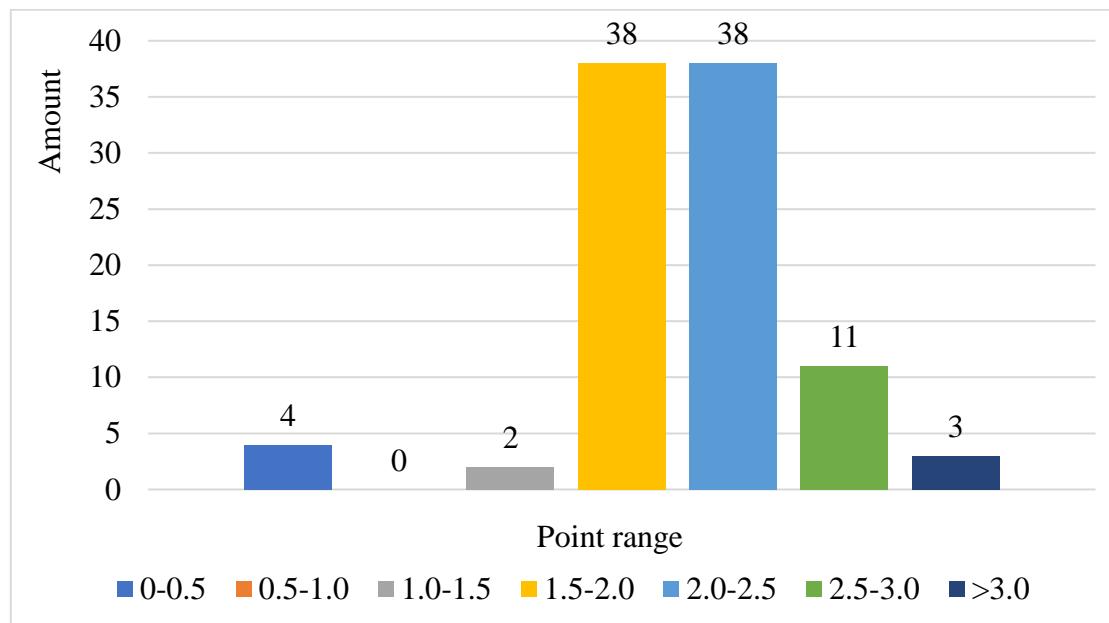


Figure 4.1. Accumulated average score converted
4.1.2. Learning outcomes of general subjects

General subjects under the first year training program of K61 Construction Management System include General Law subjects; Marxist-Leninist philosophy; Communication and

presentation skills; Office information; General chemistry; General Physics; Advanced Math 1; Advanced math 2.

The average final course score of 08 general subjects is 5.1 points; much lower than the

average final score of 04 basic subjects (Construction Law; Introduction to Construction Management; Economics; Entrepreneurship) is 7.2 points.

Among general subjects, the lowest average score in general physics is General Chemistry with a score of 3.7, followed by General Physics (4.3 points). The two subjects with the highest average score of average test scores among general subjects are Office Informatics (6.5 points) and Communication and Presentation Skills (6.2 points). This shows that students tend to prefer and focus on learning subjects with lots of practice and teamwork.

For basic subjects, Introduction to Construction Management and Construction Law are two subjects with relatively high average TKHP scores, 7.7 and 7.4 points, respectively. It shows that students are interested in learning the basic subjects of the industry by the Department of Construction Management.

4.2. Research results

4.2.1. Describe the characteristics of the model

The study received a total of 74 feedback sheets from construction management students, course

K61, in the form of an online survey combined with the distribution of answer sheets. The authors describe the characteristics of the research sample to have a basis for assessing the impact of these factors on the learning outcomes of general subjects.

4.2.2. Factors affecting the results of general education

To assess the impact on the learning results of general subjects of first-year students of Construction Management, the study used a hierarchical logit regression model for analysis. Based on the index $\chi^2(8) = 31.77$ and $\text{Prob} > \chi^2 = 0.0001$ and $R^2 = 0.2095$ of the test, it can be concluded that the regression model is suitable (attached appendix).

Table 4.2.1 below summarizes the estimated results of the hierarchical logit regression model, assessing the impact of 7 independent variables, which are the school before entering university, the education level of the family, and the student's preparation of the lesson. staff, current housing while attending school, academic advisor support, group participation, absenteeism

Table 4.1 Estimation results of hierarchical logit regression model

TT	Research variable	Regression coefficient	Odds
first	Pre-university course (khoihoc)	-0.659*	0.517*
		(0,392)	(0,202)
2	Family level (family)	1,071***	2,917***
		(0,323)	(0,943)
3	Student preparation (chuanbi)	1,108*	3,028*
		(0,581)	(1,758)
4	Current residence while attending school (choo)	0.983*	2,671*
		(0,596)	(1,593)
5	Academic advisor support (covanht)	0.156	1.169
		(0,267)	(0,312)
6	Join group study (hocnhom)	0.919	2,506
		(0,554)	(1,389)
7	Degree of absence from school (ritual)	-0.455	0.634
		(0,396)	(0,252)
8	Constant cut 1	-2.088	
		(1,521)	
9	Constant cut 2	2.741	
		(1,361)	
ten	Constant cut 3	6,265	

TT	Research variable	Regression coefficient	Odds
		(1,539)	
	Number of observations	74	

*p<0.1; **p<0.05; ***p<0.01

Source: Stata 14 . regression results

The estimation results show that the model has 3 cut-off points because the dependent variable is divided into four intervals according to the order. The sign and level of statistical significance of the hierarchical logit model estimation coefficient shows that the direction of the impact of the independent variable on the dependent variable is the result of studying general subjects of K61 students majoring in construction management. Specifically, the student's preparation (chuanbi), the pre-university course (khoihoc) and the current residence at school (choo) are statistically

significant at the 10% level. of family (family) has a significance level of 1%. Particularly, the three variables, the support of the academic advisor (covanht), the participation in the group (school) and the degree of absence from school (the study) are not statistically significant.

Combining the results collected from Table 4.2.1 and Table 4.2.2 shows the detailed impact of the independent variables on each classification group of the dependent variable.

Table 4.2 Marginal impact coefficients of the hierarchical logit model

TT	Variable	Group 1 (TB <4)	Group 2 (Average >= 4 & DTB <= 5.45)	Group 3 (mean average>= 5.45 & average rate<=6.94)	Group 4 (DTB>=6.95 & DTB<=8.44)
first	Pre-university course (khoihoc)	0.007	0.094*	-0.038	-0.063*
2	Family level (family)	-0.012	-0.153***	0.062**	0.103***
3	Student preparation (chuanbi)	-0.012	-0.158**	0.064*	0.107*
4	Current residence while attending school (choo)	-0.011	-0.140*	0.057	0.095
5	Academic advisor support (covanht)	-0.002	-0.022	0.009***	0.015**
6	Join a study group (school)	-0.010	-0.131*	0.053	0.088
7	Degree of absence from school (ritual)	0.005	0.065	-0.026	-0.044

*p<0.1; **p<0.05; ***p<0.01

Source: Stata 14 . regression results

The regression coefficient of the Khoihoc variable is 0.659, bearing a negative sign. This means that if the number of students enrolled in block D increases, the student's academic performance will decrease. Specifically, the pre-university course is statistically significant for all 4 groups, in which the group that is most affected is group 2 (0.094), that is, if students in group 2 increase by 1 unit then the probability of that student moving from group 2 to group 3 is 9.4%.

As for the students in group 4 (the group that is least affected by the scientific variable), when increasing by 1 unit, the ability to maintain learning results of the group increases by 6.3% (in terms of other factors). unchanged).

The regression coefficient of the variable family is 1.071, which has a positive sign. This means that the higher the level of the family, the higher the student's results in general subjects in the first

and second years of study. Specifically, the education level of the family is statistically significant for all 4 groups, in which the group that is most affected is group 4 (0.103), that is, if students in group 4 increase by 1 unit the ability to maintain learning results of the group increased by 10.3%. As for the students in group 2 (the group that is least affected by the family variable), when increasing by 1 unit, the probability of that student moving from group 2 to group 3 is 15.3%. (with all other factors constant).

The regression coefficient of the chuanbi variable is 1.108, which has a positive sign. This means that the more students actively prepare lessons before going to class, the better their results in general subjects will be. Specifically, the student's lesson preparation is statistically significant for all 4 groups, in which the group that is most affected is group 4 (0.107), that is, if the students in group 4 increase by 1 unit, ability to maintain learning results of the group increased by 10.7%. As for the students in group 2 (the group least affected by the Chuanbi variable), when increasing by 1 unit, the probability of that student moving from group 2 to group 3 is 15.8%. (with all other factors constant).

The regression coefficient of the choo variable is 0.983, which has a positive sign. This means that when students stay in the dormitory, the students' academic results in general subjects will increase. Specifically, the student's current accommodation is statistically significant with all 4 groups, in which the most affected group is group 4 (0.095), that is, if the students in group 4 increase by 1 unit, the group's ability to maintain learning results increased by 9.5%. As for the students in group 2 (the group least affected by the Chuanbi variable), when increasing by 1 unit, the probability of that student moving from group 2 to group 3 is 14%. (with all other factors constant).

The coefficient of regression of the variable covanht is 0.156, carries a positive sign. This means that as the counseling and support of CVHT increases, students' learning outcomes will increase. Specifically, the support of the academic advisor is statistically significant with all 4 groups, in which the group that is most affected is group 4 (0.095), that is, if the students in group 4 when increasing by 1 unit the ability to maintain learning results of the group increased by 9.5%.

As for the students in group 2 (the group least affected by the Chuanbi variable), when increasing by 1 unit, the probability of that student moving from group 2 to group 3 is 14%. (with all other factors constant).

The regression coefficient of the hocnhom variable is 0.919, bearing a positive sign. This means that when actively participating in group study together, students' learning outcomes will increase. Specifically, the participation in group study is statistically significant for all 4 groups, in which the group that is most affected is group 4 (0.088), that is, if the students in group 4 increase by 1 unit, the probability maintaining the group's learning results increased by 8.8%. As for the students in group 2 (the group that is least affected by the hocnhom variable), when increasing by 1 unit, the probability of that student moving from group 2 to group 3 is 13.1%. (with all other factors constant).

And the positive variable did not have statistical significance to the learning outcomes for all 4 groups.

5. Suggestions and recommendations

In order to improve the learning results of general subjects in particular and the learning outcomes of subjects in the training program in general, the research proposes some solutions as follows:

5.1. Adjust the content of the subjects to suit the audience

Because most K61 students majoring in Construction Management study in block D at high school, their achievement in engineering and calculation subjects in the first year is not high. Therefore, for subjects such as Marxist-Leninist Philosophy, Ho Chi Minh Thought needs to reduce the load of learning content so that students have more time to spend on reviewing natural sciences such as Advanced Mathematics, Physics. General Chemistry, General Chemistry. The natural science subjects also need to adjust the subject content to match the level and thinking of the D students. Thereby ensuring the necessary content, the focus of the subject while still improving the results. learning results.

5.2. Enhance the interaction between School and Home

Family plays a huge role in shaping the development of each individual. It can be said that family is a very important factor affecting human learning. First, family academic traditions form an important foundation in an individual's academic career. Second, family atmosphere also affects learning. A happy, warm, happy family is the spiritual motivation to help students focus on learning to achieve high efficiency. It is necessary to strengthen the interaction and relationship between the School and the Family through the role of the school curriculum. Right from the first year, it is necessary to establish an information exchange group between the curriculum vitae and the student's parents so that the family of the year can catch the requirements, announcements, news, learning situation, and training situation of the students. From there, there is a direct and timely impact on students.

5.3. Students actively prepare lessons before class

If learning without science, the learning productivity is low, the acquired knowledge is not solid and it is difficult to apply the knowledge in practice. In order to improve the quality and effectiveness of learning, it is necessary to study methodically in all stages: from listening to lectures, taking notes, doing lessons and paying attention to self-study, but most importantly, preparing lessons before studying. go to class. To increase the initiative in preparing lessons before class, students need to: preview the content of the lesson and map out the knowledge that you think will be related to the topic you are about to be taught. collect; Review lecture notes from previous lessons because the lessons in the program are arranged very logically, the lesson in front is always the basis and foundation for the lessons later. For lecturers: assign 1-2 questions/homework for students to practice the knowledge they have just learned in class; Before ending the content of the lesson, it is necessary to suggest some practical and real-life knowledge related to the content to be learned in the next lesson to stimulate students' curiosity and create a connection of knowledge. between subjects.

5.4. Improve facilities for learning in the dormitory

Through the study, the authors found that K61 students majoring in construction management in dormitories have better academic results than students not in dormitories. This difference is due to the reason that in the dormitory, students can ask questions, study in groups easily and arrange a reasonable time to create a quiet study space by themselves. In addition, in the dormitory, students can easily study, research and look up documents in the library. Thus, in order to improve the learning results of general subjects in particular and other subjects in general, students who are staying outside should move into a dormitory and ask to stay with their peers in the same major. . For the school, it is necessary to open self-study rooms in the dormitory with full equipment such as writing boards and tables and chairs so that students can study in small groups of about 10-20 students.

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