The Current Situation of Self-directed Learning Skills of High School Students: A study on high school students in Da Nang

Diep Huynh[1], Phuong Chu[2]

[1,2]Phan Chau Trinh University, Vietnam

ARTICLE INFO	ABSTRACT
Published Online: **12 November 2024** **Corresponding Author:** **Diep Huynh**	Self-directed learning skills refer to a learner's ability to take responsibility for their learning, meaning that they engage actively, independently, proactively, and creatively with learning materials to achieve their goals. To further understand the current state of self-directed learning skills among high school students and propose solutions to enhance these skills, we conducted a random survey of 755 high school students in Da Nang. The research results showed that the percentage of students possessing adequate self-directed learning skills is considerably low, with 126 students lacking these skills (16.7%) and 299 students having low-level self-directed learning skills (39.6%). There are five factors influencing students' self-directed learning skills at the high school level: study planning, study methods, learning attitude, self-evaluation, and learning motivation. Based on these findings, we propose several solutions: creative work and the advent of a handbook; hosting extracurricular activities; and particularly organising training courses on self-directed learning skills to improve these abilities for high school students.

1. INTRODUCTION

The educational curriculum for high school students 2018 places a strong emphasis on teaching and learning innovation aimed at developing learners' qualities and skills to improve the quality of human resources. Among the 10 key competencies for students, self-directed learning skills are prioritised and play a crucial role in the learning process. To better understand the current self-directed learning abilities of high school students, we need to do research on self-directed learning skills, build a framework for these skills, and conduct surveys in schools. From these findings, we can propose effective methods to foster and enhance self-directed learning skills for high school students. This paper presents the results of a survey on the self-directed learning abilities of high school students in Da Nang and proposes suitable solutions to improve these skills.

2. LITERATURE OVERVIEW
2.1. Self-directed learning Skills

According to Holec, H. (1981), self-directed learning skills refer to a learner's ability to take responsibility for their learning, actively engaging with the content to reach learning goals. Garrison, D. R. (1997) views self-directed learning as an approach where learners are motivated to take personal responsibility and deliberately lead the cognitive processes

and contexts involved in bringing about meaningful and valuable learning outcomes. Kharlamop, I. F. (1978) referred to the enhancement of self-directed learning abilities in class and considered it the best way to promote students' active engagement in learning. Sappongton, A. A. et al. (1980) published research results about the emergence of self-directed learning skills such as reading, note-taking, reviewing, and raising questions, conducted with 19 students at a university in Birmingham (the United Kingdom). As a result, after the course, these students achieved significantly higher results than those who were not trained in self-directed learning skills. According to Dave, R. H. (1975), skills are divided into key levels such as imitation, application, and creative utilisation. Boekaerts, M. (1997) stated that to learn effectively, learners need to understand the relationship between the core content and the values within that subject.

Taylor, B. (1995) identified that individuals with self-directed learning capabilities are always disciplined, independent, confident, goal-orientated, and possess appropriate skills for specific situations. According to Dewey, J. (1938), all people are born with unlimited self-directed learning potential for growth and development, and education is a means to encourage human development, where teachers act as guides rather than intervening or controlling the learning process. According to Smith, K.

(2016), students organise their own learning and transform others' knowledge into their own. Oosterheert, I. E. & Vermunt, J. D. (2001) stated that in the self-directed learning process, students learn with the highest level of proactivity and engagement. Schön, D. A. (1983) remarked that self-directed learning is characterised by learners managing themselves without others' direct control, intervention, or punishment in any form.

2.2. Factors affecting the level of self-directed learning

During the learning process, O'Kell (1988) argued that students need to clearly identify the tasks required to improve their learning quality. Brophy, J. (1983) suggested that motivation significantly contributes to the outcomes learners achieve in self-directed learning, including the learning environment and resources that meet learners' needs. Máirín, G. (2023) believed that students should experiment with various new learning methods, such as mind maps and spaced repetition, to find the most suitable method for them. Additionally, Robert J. L. et al. (2021) demonstrated in their research that to maximise the benefits of self-directed learning, learners should make effective use of technology, such as online resources, educational apps, and digital platforms. Richard Nelson-Jones (2012) found that self-discipline and conscientiousness in learning are crucial attitudes for improving learning outcomes. Zeichner, K. (2007) noted that assessing whether a learning method is suitable for the learner is the first step toward improving learning outcomes. According to Bullough, R. V. & Pinnegar, S. (2004), students should regularly review their learning results to promptly identify weaknesses and shortcomings.

According to Korthagen, F. A. J. & Lunenberg, M., self-directed learning plays an important role in developing independence and autonomy. Vroom, V. (1964) asserted that self-directed learning helps students fill in gaps in school knowledge and catch up with diverse and new information. LaBoskey, V. K. (2004) suggested that when self-directed learning, learners face difficulties in accessing quality resources, leading to distorted knowledge and ineffective learning. Another drawback pointed out by Loughran, J. & Northfield, J. (1996) is that learners can easily be distracted by external factors such as noise, social media, or other entertainment activities.

There are many scales for measuring self-directed learning abilities, such as the Self-Directed Learning Readiness Scale (SDLRS) by Guglielmino, L. M. (1977) and the Self-Rating Scale of Self-Directed Learning (SRSSDL) by Williamson, S. (2007).

Ritter, J. (2017) suggested that self-directed learning can be enhanced by guiding and providing students with reliable and high-quality resources. Schulte, A. (2009)

asserted that parents can set an example for their children by focusing on their own work to cultivate discipline. From research results, Darling-Hammond, L. (2010) concluded that parents need to clearly identify their children's abilities (strengths and weaknesses) to encourage and motivate them. Schön, D. A. (1995) proposed that in their learning plan, students should anticipate backup plans and methods to overcome unexpected obstacles related to time and general requirements. According to Freese, A. (2006), learners should regularly check the knowledge they've acquired, their ability to apply it, their learning style and attitude, and the goals set by the school, teachers, and themselves. Additionally, Linda, L. (2000) suggested that learners should quickly address and correct any mistakes or shortcomings they discover during the self-directed learning process. A solution proposed by Hargreaves, A. & Fullan, M. (2012) is teaching others as a way to review and test knowledge. Nguyễn Thị Nhị (2016) concluded that using online communication tools (email, Facebook, etc.) to exchange knowledge with teachers and peers is a solution to improve self-directed learning efficiency.

In Vietnam, according to the research of Nguyễn Hồng Lĩnh (2012), self-directed learning is both a guided process and an individual trait. Importantly, these two different aspects of self-directed learning are interrelated and cannot be separated. Lưu Xuân Mới (2000) suggested that self-directed learning skills are the ability to effectively apply knowledge, methods, and societal experience in different learning conditions to maximise personal development and contribute to societal growth. Lê Công Triêm (2001) evaluated self-directed learning competence by assessing the "can do" and "will do" characteristics of learners. In a report by Nguyễn Tuấn Kiệt (2016), improving self-directed learning abilities helps students develop their skills and fosters a positive attitude toward self-directed learning and research. Lê Thị Hải Yến & Nguyễn Cảnh Toàn (2012) stated that developing self-directed learning competence is a leading and most important factor, as it drives the success of other competencies and lifelong learning.

3. PARTICIPANTS AND METHODOLOGY
3.1. Participants

755 high school students from 8 high schools of 6 districts and 1 province of Da Nang, genders (376 males and 379 females); academic performance (unsatisfactory: 6; satisfactory: 68; good: 329; excellent: 352); conduct (unsatisfactory: 3; satisfactory: 8; good: 14; excellent: 730); grades (10th grade: 247; 11th grade: 256; 12th grade: 252); high schools (Phan Chau Trinh: 185, Le Quy Don: 70; Thai Phien: 80; Nguyen Thuong Hien: 85; Ngu Hanh Son: 81; Hoa Vang: 83; Pham Phu Thu: 84; FPT: 87).

Table 1. Description of research participants

	Level of self-directed learning				
	No self-directed learning	Low level of self-directed learning	Moderate level of self-directed learning	High level of self-directed learning	Extremely high level of self-directed learning
Gender					
Males (376)	17.6%	47.9%	13.3%	15.7%	5.5%
Females (379)	15.8%	31.4%	11.6%	26.4%	14.8%
Conduct					
Unsatisfactory and satisfactory (11)	81.8%	9.1%	9.1%	0%	0%
Good (14)	78.6%	14.3%	7.1%	0%	0%
Excellent (730)	14.5%	40.5%	12.6%	21.8%	10.6%
Grade					
10th grade (247)	19.0%	44.5%	15.0%	13.0%	8.5%
11th grade (256)	18.0%	41.8%	11.7%	19.5%	9.0%
12th grade (252)	13.1%	32.5%	10.8%	32.5%	11.1%
Academic performane					
Unsatisfactory and satisfactory (74)	94.6%	4.1%	1.3%	0%	0%
Good (329)	15.8%	61.1%	14.3%	5.8%	3.0%
Excellent (352)	1.1%	27.0%	13.1%	39.8%	19.0%
School					
Phan Chau Trinh (185)	16.8%	39.5%	12.4%	21.1%	10.2%
Le Quy Don (70)	17.1%	38.6%	12.8%	21.4%	10.1%
Thai Phien (80)	16.3%	40%	12.5%	21.3%	9.9%
Nguyen Thuong Hien (85)	17.6%	40%	12.9%	21.2%	8.3%
Ngu Hanh Son (81)	16.0%	40.7%	12.3%	21.0%	10%
Hoa Vang (83)	15.7%	39.6%	12.0%	20.5%	12.2%
Pham Phu Thu (84)	16.7%	39.3%	11.9%	21.4%	10.7%
FPT (87)	17.2%	39.1%	12.6%	20.7%	10.4%

3.2. Instruments:

Multiple choice method (test SDLRS Self-Directed Learning Readiness Scale - Oddi L. F.,1986) consists of 17 questions on the subject's level of self-directed learning the past two weeks, with 5 levels on the Likert scale from low to extremely high (1=almost never true of me; 2=not often true of me; 3=sometimes true of me; 4=usually true of me; to 5=almost always true of me). The results of the reliability analysis of 17 answers given by students achieved alpha coefficient > 0.891. This confirms that the data obtained are meaningful and highly reliable. Specifically, the self-directed learning levels are: 1.00 – 1.80 points: no self-directed

learning; 1.81 – 2.60 points: low level of self-directed learning; 2.61 – 3.40: moderate level of self-directed learning; 3.41 – 4.20 points: high level of self-directed learning; 4.21 – 5.00 points: extremely high level of self-directed learning.

Questionnaire method: 60 survey questions and 17 questions on the level of self-directed learning were constructed for high school students, including the reality of cognition, performance, impact; solutions to improve self-directed learning's level, and 6 questions about personal information (gender, conduct, academic performance, grade, school).

Mathematical statistical method: SPSS 25 was used to analyse descriptive statistics and exploratory factor analysis EFA; EXCEL was used to calculate collected data.

4. RESULTS AND DISCUSSION

4.1. The reality of performing self-directed learning ability of high school students in Da Nang on personal aspects

The results of a survey of 755 students showed that 462 students (61%) did not exhibit self-directed learning. When broken down by gender, of the 126 students who had no self-directed learning, 66 were male students (52.4%) and 60 were female students (47.6%). Among those with low levels of self-directed learning, male students accounted for 60.2% (180) and female students for 39.8% (119). Therefore, it can be seen that male students were likely to have lower levels of self-directed learning than female students.

Turning to conduct, the group of students who achieved unsatisfactory and satisfactory conduct comprised 7.1% of the 126 students with no self-directed learning. Furthermore, these students accounted for 81.8% of the 11 survey forms completed by students in this group. Out of the 299 students with low levels of self-directed learning, only 1 student fell into the unsatisfactory or satisfactory category; this student represented 9.1% of the total survey forms submitted by students with low self-directed learning. Meanwhile, among the remaining students with no self-directed learning, students rated with good and excellent conduct constituted 8.7% and 84.1%, respectively. However, when analysing the survey responses from these groups, a significantly higher proportion of students in both groups lacked self-directed learning: 78.6% for good and 14.5% for excellent. For the 299 students with low levels of self-directed learning, a negligible proportion of 0.01% achieved good or excellent conduct. Nevertheless, among those who did the survey, 14.3% of good and 40.5% of excellent-conduct students demonstrated low levels of self-directed learning. Based on this analysis, it can be concluded that students with unsatisfactory and satisfactory conduct had lower levels of self-directed learning compared to those who achieved good and excellent.

Similarly, in terms of academic performance, the group of students who achieved unsatisfactory and satisfactory grades comprised 55.6% of the 126 students with no self-directed learning. Furthermore, these students accounted for 94.6% of the 74 survey forms completed by students in this group. Out of the 299 students with low levels of self-directed learning, only 3 students fell into the unsatisfactory or satisfactory category, representing 4.1% of the total survey forms submitted by students with low self-directed learning. Meanwhile, among the remaining students with no self-directed learning, students rated with good and excellent academic performance constituted 41.3% and 3.2%, respectively. However, when analysing the survey responses from these groups, there was only a negligible proportion of students in both groups lacking self-directed learning: 15.8% for good and 1.1% for excellent. For the 299 students with low levels of self-directed learning, 67.2% of them had good grades and 31.8% had excellent grades. Nevertheless, among those who did the survey, 61.1% of good and 27.0% of excellent-academic performance students got low levels of self-directed learning. Based on this analysis, it can be concluded that students with excellent academic performance had the highest level of self-directed learning, followed by students with good academic performance and those who achieved unsatisfactory and satisfactory academic performance had the lowest level of self-directed learning.

Lastly, in terms of grades, it is clear that of all students who have no self-directed learning and low levels of self-directed learning, 10th graders account for 36.9%, 11th graders for 36.9% and grade 12 students for 27.1%. These data indicate that grade 12 students have higher levels of self-directed learning than their counterparts in years 10 and 11. Moreover, there is no difference in self-directed learning between schools, whether public or private.

Thus, through the SDLRS test and the questionnaire on students' personal information, male students indicated a lower level of self-directed learning compared to their female counterparts; students with unsatisfactory and satisfactory conduct and academic performance had a lower level of self-directed learning than those with good and excellent conduct and academic performance. 12th graders had a higher level of self-directed learning.

4.2. The reality of cognising self-directed learning ability of high school students in Da Nang

Table 2. Assessment of high school students' self-directed learning (SDLRS - Oddi L. F.,1986)

Content	Percentage (%)					Mean	SD	Rank
	Never	**Rarely**	**Sometimes**	**Often**	**Always**			
I value the motto "Study, learn more, learn forever"	18.9	44.2	22.5	10.4	4.0	2.36	.864	12
I know what I want to learn	11.1	14.4	40.2	25.6	8.7	3.07	.905	4
When I see something that I do not understand, I stay away from it	15.6	42.9	1.5	28.9	11.1	2.77	.791	5
If there is something I want to learn, I can figure out a way to learn it	7.8	17.1	40.0	21.5	13.6	3.16	.887	2
I love to learn	25.3	38.2	22.0	13.3	1.3	2.27	.963	17
It takes me a while to get started on new projects	12.4	13.1	38.2	23.8	12.5	3.11	1.051	3
In a classroom situation, I expect the instructor to tell all class members exactly what to do at all times	22.4	40.5	20.7	12.7	3.6	2.35	.812	13
I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education	4.2	21.5	38.0	20.5	16.2	3.23	.744	1
I do not work very well on my own	23.1	40.5	22.0	12.5	1.8	2.29	.798	16
If discover a need for information that I do not have, I know where to go to get it	34.4	27.3	9.6	13.1	15.6	2.48	.804	6
I can learn things on my own better than most people	26.5	34.7	13.3	16.0	9.5	2.47	.873	7
Difficult study does not bother me if I am interested in something	28.9	34.4	18.7	10.7	7.3	2.33	.845	14
No one but me is truly responsible for what I learn	18.9	44.0	21.6	9.6	5.8	2.39	.839	10
I am sure whether my study is going well or not	20.4	42.9	18.0	16.5	2.2	2.37	.799	11
There are so many things I want to learn that I wish there were more hours in a day	14.7	48.4	22.2	9.8	4.9	2.42	.818	8
I always manage time to acquire the thing I want	26.2	37.3	16.7	18.7	1.1	2.31	.905	15
I have difficulty reading comprehension	16.4	47.1	20.0	11.8	4.7	2.41	.948	9
Mean						**2.58**		

Table 3. Results of self-directed learning of high school students in Da Nang city

Level of self-directed learning	Quantity (n=755)	Percentage (%)
No self-directed learning	126	16.7
Low level of self-directed learning	299	39.6
Moderate level of self-directed learning	94	12.5
High level of self-directed learning	159	21.0
Extremely high level of self-directed learning	77	10.02

The results of the survey on self-directed learning using the ***SDLRS - Oddi L. F., 1986*** showed that 126 students had no self-directed learning, accounting for 16.7% and 299 students had low level of self-directed learning, accounting for 39.6%. This shows that the level of self-directed learning of high school students in Da Nang city is still low (Mean: 2.58)

4.3. Factors affecting high school students' level of self-directed learning

The study identified five factors influencing students' self-directed learning skills: study plan, study motivation, study method, study attitude, and self-assessment. Among these factors, the study method had the most significant impact (mean: 3.75), followed by study attitude (mean: 3.71), study plan (mean: 3.23), self-assessment (mean: 3.12), and study motivation (mean: 3.04).

Table 4. Factors affecting the level of self-directed learning of high school students in Da Nang

ID	Factors	Percentage (%)					Mean	SD	Rank
		Strongly false	False	Neutral	True	Strongly true			
	Study plan								
KH1	Clearly identify the tasks required	6.5	3.3	47.1	19.7	23.4	3.50	.812	1
KH2	Identify the requirements of each task	4.5	16.4	45.1	23.1	10.9	3.20	.812	2
KH3	Distribute time reasonably for each task	22.6	2.9	40.0	4.9	29.6	3.16	.815	3
KH4	Organise tasks in logical order	16.1	.9	55.2	18.7	9.1	3.04	.811	4
Mean							**3.23**		
	Study motivation								
ĐL1	Learning environment meets learners' needs	9.1	47.3	10.9	30.3	2.70	2.70	1.065	5
ĐL2	Expectations from family	17.1	38.9	5.1	21.1	2.84	2.84	.827	4
ĐL3	Other people's success is my motivation to learn	19.5	3.8	32.9	34.9	3.10	3.10	.790	3
ĐL4	Desire to take advantage of every opportunity to develop myself	7.1	2.2	46.5	31.8	3.40	3.40	.673	1
ĐL5	Consider acquiring new knowledge as a challenge to overcome	3.6	35.3	20.0	25.1	3.15	3.15	.809	2
Mean							**3.04**		
	Study method								
PP1	Take notes in class systematically	19.3	4.7	31.1	37.8	7.1	3.09	.902	5
PP2	Be proactive in seeking help from teachers and friends	6.7	1.4	39.2	25.1	27.6	3.66	.989	4
PP3	Cultivate self-directed learning skills	1.5	6.9	23.1	40.2	28.3	3.87	.751	3

| ID	Factors	Percentage (%)					Mean	SD	Rank
		Strongly false	False	Neutral	True	Strongly true			
PP4	Eexperiment with various new learning methods, such as mind maps and spaced repetition, to find the most suitable method	8.4	1.8	9.1	31.3	49.4	4.12	.887	1
PP5	Make effective use of technology, such as online resources, educational apps, and digital platforms	10.0	1.8	10.4	31.3	46.5	4.03	.679	2
Mean							**3.75**		
	Study attitude								
TĐ1	Possess the ability to concentrate for long periods of time	2	1.1	62.0	18.2	18.5	3.54	1.007	4
TĐ2	Learn from mistakes	3.7	6.2	32.5	35.1	22.5	3.67	.905	3
TĐ3	Be open to other perspectives	4.1	3.2	33.0	35.4	24.3	3.73	.770	2
TĐ4	Always be self-disciplined and conscientious while learning	9.9	3.7	13.3	26.3	43.5	3.90	1.112	1
Mean							**3.71**		
	Self-assessment								
ĐG1	Determine learning goals within capacity	17.7	6.7	28.5	35.1	12.0	3.17	1.253	4
ĐG2	Determine the content you need to learn and what you don't understand	6.2	52.0	6.0	33.6	2.2	2.74	.777	5
ĐG3	Adjust your learning activities to match personal goals	2.3	7.5	48.4	29.1	12.7	3.42	.911	1
ĐG4	Assessing whether a learning method is suitable	6.5	16.1	35.5	33.1	8.8	3.22	1.978	2
ĐG5	Rregularly review their learning results to promptly identify weaknesses and shortcomings	1.1	33.0	23.3	32.2	10.4	3.19	1.040	3
Mean							**3.12**		
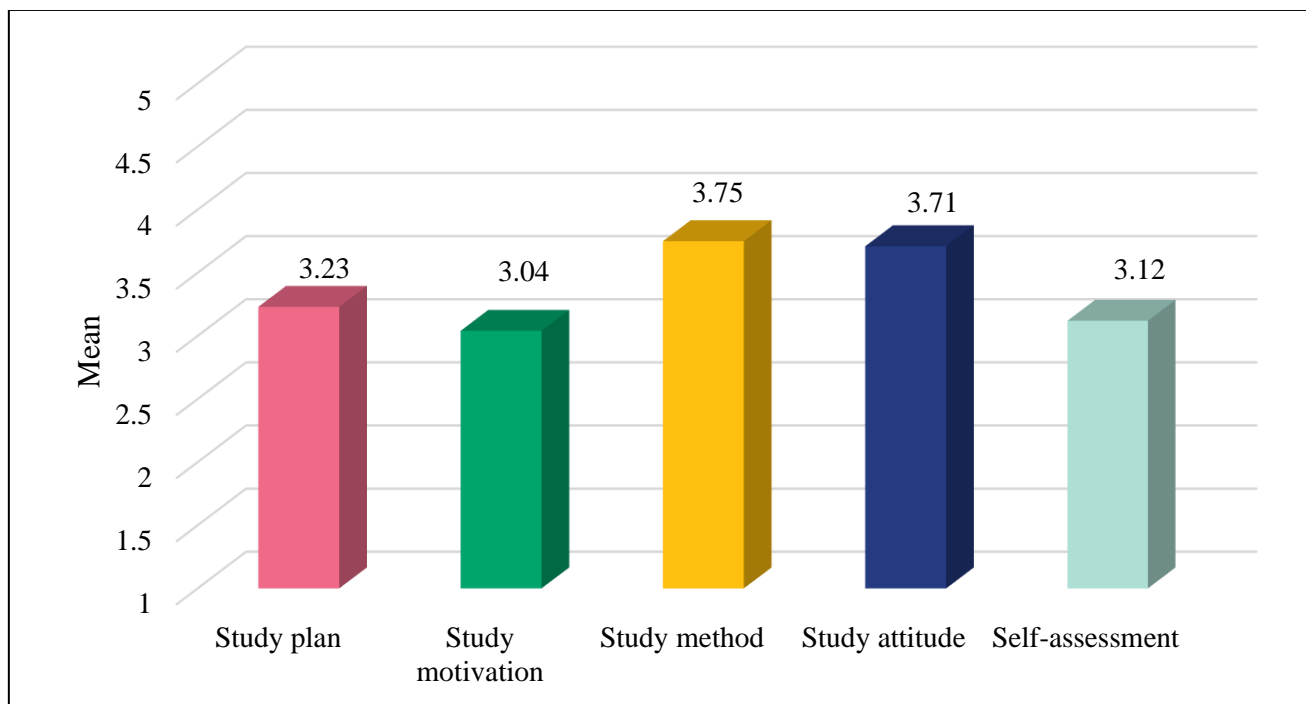
Figure 1. Factors affecting the level of self-directed learning of high school students in Da Nang

4.4. Solutions to improve self-directed learning level for high school students in Da Nang

Research on three groups of solutions to improve self-directed learning's level for high school students in Da Nang: school, family and individual.

The results show that the individual solution group is chosen the most by students (mean: 3.78); followed by the family solution group (mean: 3.39) and finally the school solution group (mean: 3.34).

Table 5. Solutions to improve self-directed learning's level

	Strongly false	False	Neutral	True	Strongly true	Mean	SD	Rank
School solution group								
Promote self-study awareness for students through many media platforms	11.6	9.3	40.7	35.1	3.3	3.09	1.008	5
Guiding and providing students with reliable and high-quality resources	10.8	3.7	24.5	25.1	35.9	3.72	.872	1
Extend library opening hours and add more reference books	18.9	1.7	25.1	39.2	15.1	3.30	.880	3
Develop rich learning topics that are close to life and suitable for students so that students can freely choose according to their strengths	13.8	1.4	37.0	30.7	17.1	3.36	1.121	2

	Strongly false	False	Neutral	True	Strongly true	Mean	SD	Rank
Organise extracurricular programs on the topic of improving self-study ability by inviting psychological experts and students with high academic achievements to talk and share experiences	13.4	.9	51.2	19.2	15.3	3.22	1.125	4
Mean						**3.34**		
Family solution group								
Encourage children to be independent and proactive in everything	.5	11.1	47.8	16.0	24.6	3.53	.914	1
Proactively share and listen to the difficulties their children are facing in their studies to help them overcome them	12.7	4.8	21.4	49.4	11.7	3.43	1.106	3
Set an example for their children by focusing on their own work to cultivate discipline	14.7	1.5	40.5	30.8	12.5	3.25	1.006	4
Clearly identify their children's abilities (strengths and weaknesses) to encourage and motivate them	1.0	23.3	24.5	30.6	20.6	3.47	.828	2
Spend time supervising their children's studies and checking their homework	2.7	8.5	47.3	28.5	13.0	3.41	.996	4
Create a reading habit in the family	14.1	2.7	41.4	30.9	10.9	3.22	.993	6
Mean						**3.39**		
Individual solution group								
Develop the habit of making a list of tasks to do (in a year, a period, a month, a week, a day,etc.)	4.5	1.7	34.6	17.3	41.9	3.90	.934	4
Determine the time to self-study at home, in class, at the library, etc.	9.8	3.3	16.2	26.3	43.5	3.91	1.009	3
Plan for alternative plans, anticipate unexpected obstacles in terms of time and general requirements	1.5	6.9	23.1	40.2	18.4	3.87	.918	5

|	Strongly false	False	Neutral	True	Strongly true	Mean	SD	Rank
Develop the habit of summarising, classifying, establishing relationships, and representing with logic diagrams to systematise knowledge	1.8	4.4	27.9	31.6	34.3	3.92	1.125	2
Quickly address and correct any mistakes or shortcomings they discover during the self-directed learning process	2.5	12.5	36.9	18.4	29.7	3.60	.817	11
Teaching others as a way to review and test knowledge	21.3	.3	16.6	30.1	32.7	3.56	.855	12
Using online communication tools (email, Facebook, etc.) to exchange knowledge with teachers and peers	3.1	3.5	9.4	29.7	54.3	4.29	1.112	1
Participate in study groups on social networks to learn more knowledge	4.2	11.9	22.0	42.3	19.6	3.61	.801	10
Watch lecture videos on Youtube to grasp lessons not understood at school or in class	12.9	2.7	13.4	51.6	19.4	3.62	.838	9
Regularly analyse, synthesise, generalise, and self-evaluate information to choose the necessary learning resources	13.8	.7	25.5	26.0	34.0	3.66	.891	7
Regularly check the knowledge they've acquired, their ability to apply it, their learning style and attitude, and the goals set by the school, teachers, and themselves	12.7	.9	26.8	17.7	41.9	3.75	.902	6
Regularly monitor learning progress through websites and apps	10.2	5.3	19.6	40.0	24.9	3.64	.915	8
Mean						**3.78**		
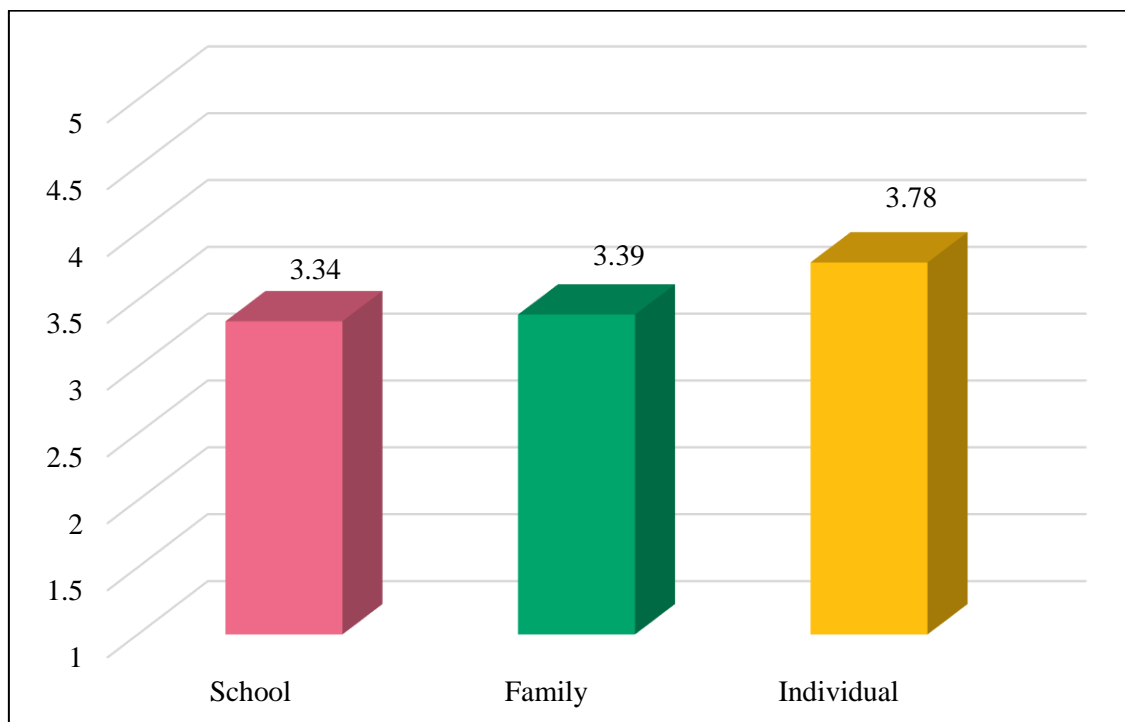
Figure 2. Groups of solutions to improve self-directed learning's level

5. CONCLUSION

To align with the fundamental and comprehensive innovation of education and training, which prioritises developing learners' qualities and capacities to enhance human resource quality, self-directed learning (SDL) is a crucial component of the student learning process. Survey results indicate that a majority of students exhibit low SDL skills. Male students demonstrate lower levels of SDL compared to female students, and those with unsatisfactory or satisfactory conduct and academic performance have lower SDL abilities than those with good or excellent results. Grade 12 students show higher levels of SDL than those in grades 10 and 11. Based on these findings, the research team proposes subject-specific solutions to improve SDL skills among high school students in Da Nang.

REFERENCES

1. Boekaerts, M. (1997). Self-regulated learning: A new concept embraced by researchers, policy makers, educators, teachers and students.
2. Brophy, J. (1983). Classroom organization and management.
3. Bullough, R. V. & Pinnegar, S. (2004). Thinking about the thinking about self-study: An analysis of eight chapters
4. Darling-Hammond, L. (2010). Teacher education and the American future.
5. Dave, R.H., (1975). Developing and Writing Behavioral Objectives.
6. Dewey, J. (1938). Experience and Education.
7. Dewey, J. (1938). Experience and Education.
8. Freese, A. (2006). Reframing one's teaching: Discovering out teacher selves through reflection and Inquiry.
9. Garrison, D. R. (1997). Self-Directed Learning: Toward a Comprehensive Model
10. Guglielmino, L. M. (1977). Development of the selfdirected learning readiness scale.
11. Hargreaves, A. & Fullan, M. (2012). Professional Capital. Transforming Teaching in Every School.
12. Holec, H. (1981). Autonomy in Foreign Language Learning.Oxford: Pergamon.
13. Kharlamop, I. F. (1978). Phát huy tính tích cực học tập của học sinh như thế nào?
14. Korthagen, F. A. J. & Lunenberg, M. (2004). Links between self-study and teacher education reform.
15. LaBoskey, V. K. (2004). The methodology of self-study and its theoretical underpinnings.
16. Lê Công Triêm (2001). Bồi dưỡng năng lực tự học, tự nghiên cứu cho sinh viên đại học
17. Lê Thị Hải Yến & Nguyễn Cảnh Toàn (2012). Xã hội học tập - Học suốt đời và các kỹ năng tự học.
18. Linda L. (2000). Self-directed learning: Theory and practice, Submitted infulfilment of the requirements for the doctor of philosophy.
19. Loughran, J. & Northfield, J. (1996). Opening the classroom door: Teacher, researcher, learner
20. Lưu Xuân Mới (2000). Lý luận dạy học đại học.
21. Máirín, G. (2023). Extending knowledge by developing a 'slow approach' to action research.
22. Nguyễn Hồng Lĩnh (2012). Một cách hiểu về dạy học kết hợp

Diep Huynh[1], RAJAR Volume 10 Issue 11 November 2024

23. Nguyễn Thị Nhị (2016). Bồi dưỡng năng lực tự học cho học sinh thông qua việc sử dụng sơ đồ tư duy trong dạy học Vật lí ở trường THPT.

24. Nguyễn Tuấn Kiệt (2016). Hình thành kỹ năng tự học cho sinh viên nhu cầu thiết yếu trong đào tạo ngành sư phạm.

25. O'Kell, S. (1988). A study of the Relationships Between Learning Style, Readiness for Self-directed Learning and Teaching Preference of Learner Nurses in one Health District.

26. Oosterheert, I. E. & Vermunt, J. D. (2001). Individual differences in learning to teach: Relating cognition, regulation and affect.

27. Richard Nelson - Jones, (2012), Basic Couseling Skill.

28. Ritter, J. (2017). Those who can do self-study, do self-study: But can they teach it?

29. Robert J. L., Matthew W. T. & Matthew Y. S. (2021). Dialogic research engagement through podcasting as a step towards action research: A collaborative autoethnography of teachers exploring their knowledge and practice.

30. Sappongton, A. A. (1980). Self- directed learnning program for students in probation.

31. Schön, D. A. (1983). The reflective practitioner: How professionals think in action.

32. Schön, D. A. (1995). Knowing in-action: The new scholarship requires a new epistemology.

33. Schulte, A. (2009). Seeking integrity in teacher education

34. Smith, K. (2016). Cooperation in the college classroom.

35. Taylor, B. (1995). Self- directed learning: Revisiting an idea most appropriate for middle school students.

36. Vroom, V. (1964). Work and motivation.

37. Williamson, S. (2007). Development of a self-rating scale of self-directed learning.

38. Zeichner, K. (2007). Accumulating knowledge across self-studies in teacher education.