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Comparing the Effectiveness of Self- Directed Learning Training on Educational Infatuation and Help-Seeking Behavior among Secondary School Students

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Abstract

Educational infatuation and help-seeking behavior are important variables for students. The present study aims to compare the effectiveness of self- directed learning training on educational infatuation and help-seeking behavior among secondary school students. The research method was semi-experimental, using a pretest-posttest design with a control group and a two-month follow-up. The statistical population consisted of all female secondary school students in the six educational districts of Isfahan during the 2023–2024 academic year. The sampling method was accessible sampling, and the sample size included 42 secondary school students. The experimental group participated in a self- directed learning training program developed by Jafari et al. (2021) over 12 sessions, each lasting 90 minutes. The research instruments were the Educational Infatuation Questionnaire by Martin and Jackson (2008), and the Help-Seeking Behavior Questionnaire by Ryan and Pintrich (1997). Data analysis was performed using SPSS software version 23 through repeated measures analysis of variance. The results showed that self-determination training increased students' educational infatuation and acceptance of help-seeking, while reducing avoidance of help-seeking. The effects of the training were also maintained during the follow-up phase. Therefore, self- directed learning training can improve students' educational infatuation and academic help-seeking behaviors.

Key Words: Self- directed learning training, Educational infatuation, Educational help-seeking behavior, second year high school students.

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Introduction

Academic achievement is one of the criteria for evaluating the effectiveness of the educational system, and identifying and studying the variables that influence it greatly contributes to a better understanding and prediction of student performance. Therefore, academic achievement is one of the fundamental topics of research within the educational system (Aboltaleb, 2020). In recent years, various researchers in the field of learning have focused on the concept of educational infatuation, recognizing it as a key factor in personal, social, and academic development (Motti & Masten2020).

One of the most recent variables in the field of education is educational infatuation. Educational infatuation can be examined within the framework of academic interest. Students' academic interest can be explored in various forms, such as tested interests and listed interests (Naghesh, Foroughi Abari & Shafie Pour Motlagh,2016). Educational infatuation is a positive inner feeling in which an individual becomes fully immersed, with complete focus, in a challenging and highly stimulating activity (Mäkikangas, Bakker, Aunola & Demerouti, 2010). The experience of educational infatuation refers to an internal awareness that arises when individuals are deeply engaged in enjoyable academic activities. This state represents the peak moment in which a person invests their mental energy and attention toward clear and defined goals of a specific activity. It occurs when personal skills and situational opportunities are well aligned (Colombo & Zito,2014). Educational infatuation emerges from the balance between the skills required to perform an activity and the challenges it presents. Three conditions are essential for entering and achieving a state of infatuation: first, there must be a clear goal that motivates engagement in the activity; second, there should be a good balance between perceived challenge and task-related skill; and third, the task must provide immediate and clear feedback (Elliot&Dweck,2005). As central figures in the learning process, students require motivation, enthusiasm, and passion to acquire new knowledge and skills. Educational infatuation, as a key factor in academic success, refers to a deep interest and enthusiasm individuals have toward learning and progress in various academic fields. Research shows that students who are genuinely interested in their studies usually perform better and more easily overcome academic challenges (Schunk, Pintrich,& Meece, 2014). Therefore, promoting educational infatuation can help improve learning outcomes and enhance the quality of education (Yari, Salehi, Zangoei & Yari, 2023).

Given the importance of educational infatuation, investigating its various dimensions and aspects has become a focal point for many researchers. Numerous studies have explored the relationship between educational infatuation and self-directed learning. Shao, Hong, and Zhao (2022), in their study, examined the impact of self-directed learning and attitudes toward self-directed learning on the effectiveness of online learning, while also considering the mediating roles of internet cognitive fatigue and the status of educational infatuation. Their findings indicated that self-directed learning and positive attitudes toward it positively predicts the level of educational infatuation, thereby enhancing students' learning effectiveness. Another important variable

in the field of education is educational help-seeking behavior. Newman (1998) defines academic help-seeking as seeking assistance from others when facing uncertainty or difficulty in academic tasks. Butler (2006) views it as an active effort to make use of available resources to achieve success. Academic help-seeking includes behaviors such as asking teachers, parents, or classmates for help, requesting further clarification on problems, seeking hints or solutions, and looking for other forms of academic support. It functions as a strategy to prevent academic failure (Martin-Arbo, Castarlenas & Duenas., 2021).

Students play an important role in the learning process and in their social interactions, influencing one another in various ways. One of the most notable characteristics in their behavior is educational help-seeking behavior, which refers to the act of requesting assistance and support from others in academic matters. This behavior not only enhances social learning but also contributes to the development of teamwork skills and problem-solving abilities. According to a study published in 2021 (Dueñas, Camarero, & Castarlenas), educational help-seeking behavior can help students gain a better understanding of complex concepts and increase their motivation for learning. Numerous studies have examined the relationship between educational help-seeking behavior and self-directed learning. A study conducted by Sofi (2022) showed that there is a positive and significant relationship between self-directed learning and educational help-seeking. This research indicates that students who engage in self-directed learning are more likely to identify their learning difficulties and seek help to overcome them. Additionally, Sharifi, Hassani, and Mohammadkhani (2022) found in their research that self-directed learning and self-efficacy beliefs can predict academic help-seeking behavior. These findings suggest that strengthening self-directed learning can lead to an increase in constructive help-seeking behaviors among students. In another study, Taheri Tafti, Sohrabi, and Meshkati (2022) investigated the mediating role of motivational beliefs in the relationship between self-directed learning and educational help-seeking. The results showed that self-directed learning can predict academic help-seeking both directly and indirectly through motivational beliefs. International studies have also confirmed the positive relationship between self-directed learning and educational help-seeking. For example, a study by Karabenick & Knapp (1991) found that students who use self-directed learning strategies tend to seek more educational help, and this behavior leads to improved academic performance.

Self-directed learning is a psychological state in which learners feel personally responsible for their own learning (Taylor, Kemp, Mi & Lerchenfeldt, 2023).

Knowles (1975) defines self-direction in learning as a process in which learners, with or without the help of others, identify their learning needs, set goals, locate appropriate human and material resources, select and implement suitable learning strategies, and evaluate the outcomes of their learning — taking initiative in the process (Voskamp, Kuiper & Volman., 2022).

Yuan, Williams, Fang, & Pang (2012) stated in their definition of self-directed learning that through this approach, students become familiar with their

own learning needs, goal setting, selection of learning strategies, and evaluation of the learning outcomes.

Self-directed learning is a process in which individuals assess their own learning needs, formulate goals accordingly, select and implement appropriate strategies, and analyze the outcomes of their learning (Taylor et al., 2023). Therefore, it requires individuals to improve both themselves and their communities. In other words, self-directed learners are those who take responsibility for their own learning and possess critical and analytical thinking skills, as well as the ability to communicate effectively (Taylor et al., 2023). The benefits of applying self-direction in learning include increased self-confidence, intrinsic motivation, and the development of lifelong learning skills. This type of learning encourages individuals to recognize their knowledge gaps and then seek out resources that can help them address these deficiencies. As a result, learners use their existing knowledge to discover available resources and make informed judgments in solving problems.

Self-directed learners are always aware of their responsibility in meaningful learning and self-monitoring. They view challenges as opportunities, are open to change, and enjoy the learning process. In fact, self-directed learners are active and self-motivated individuals who benefit from a self-disciplined learning process (Chukwunemerem, 2023). Various studies have examined the effectiveness of self-directed learning instruction and have shown significant impacts on: Academic responsibility and reduction of academic procrastination (Jafari, Nadi & Manshaei, 2018), Adaptability and academic vitality among students with special characteristics (Safari; Kazemian Moghaddam; Harun Rashidi, 2024), Improvement of academic enthusiasm and resilience among male students (Darabi, Hosseinzadeh, Zolfaghari Kahkesh, Nayodi, 2023), Empowerment of personal and academic well-being among high school students (Van Tonder, Klopper & Grosser, 2022), Informal online environments within formal educational settings (Morris, 2019).

Considering the issues discussed during the educational period, educational infatuation and academic help-seeking behavior are two key factors that significantly influence students' academic achievement. Educational infatuation as a state of deep interest and immersion in learning activities is a key factor in students' academic success. On the other hand, academic help-seeking behavior, which refers to the active pursuit of assistance when needed, plays a fundamental role in improving academic performance and developing learning skills. This study focuses on these two variables and aims to identify effective strategies for enhancing learning outcomes. Self-directed learning is one of the modern educational approaches that empowers students by emphasizing their ability to manage their own learning process, allowing them to play a more active role in education. Due to its significant impact on the development of independent thinking, problem-solving abilities, and increased intrinsic motivation, this approach has become an essential tool in modern educational systems.

The second cycle of secondary education is particularly sensitive due to its position at the threshold of career and academic path selection. At this stage, students require instruction not only to improve their academic performance but also to strengthen skills such as self-management, self-efficacy, and constructive help-seeking behavior. Despite numerous studies in the field of self-directed learning, few have specifically examined its impact on educational infatuation and educational help-seeking behavior. This research can help bridge this scientific gap and provide more effective instructional strategies.

Accordingly, the present study aims to investigate the effectiveness of self-directed learning instruction on educational infatuation and educational help-seeking behavior among secondary school students, and seeks to examine the impact of this educational approach within the research context.

Research question

Can self-directed learning instruction have an impact on educational infatuation and educational help-seeking behavior among secondary school students?

Methodology

The present study was a quasi-experimental design with a pretest-posttest and two-month follow-up design, including an experimental and a control group. The statistical population consisted of all female secondary school students in the six educational districts of Isfahan who were studying in high schools during the academic year 2023–2024. The sampling method was convenience sampling, and a total of 42 students who met the inclusion criteria were selected and randomly assigned to two groups. Initially, District 3 was randomly selected from the six districts of Isfahan. Then, from the girls' secondary schools in District 3, Hedefsazan Non-Governmental High School was randomly selected. A call was made among students willing to participate in the research. From those who met the inclusion criteria, 42 participants were selected and randomly assigned into two groups of 21 each.

Inclusion criteria included:

- Gender of the participants (female students),
- Educational grade level (grades 10, 11, and 12),
- Age range of participants (16 to 18 years old).

Exclusion criteria included:

- Excessive absences from training sessions (more than 3 sessions),
- Failure to complete assigned tasks,
- Any problems or disruptions in the implementation of the tasks by participants,
- Lack of cooperation and non-attendance in the training sessions.

After random assignment of participants to the groups, both groups completed the research questionnaires at the pretest stage. Then, the experimental group participated in a self-directed learning program over 12 sessions of 90 minutes

each. After completion of the training course, both groups completed the posttest, and both groups also completed the follow-up test after two months.

To measure and assess the dependent variables, the following questionnaires were used:

education Infatuation Scale:

The education Infatuation Questionnaire by Jackson and Martin (2008) is a valid psychological tool for measuring the level of education infatuation among students and university learners. The target population includes various age groups in formal educational settings (schools and universities), and its initial studies were conducted on Australian students.

The purpose of designing this questionnaire is to evaluate different dimensions of academic infatuation, including focus, motivation, creativity, and enthusiasm during the learning process. This instrument helps researchers and teachers assess the level of academic engagement and its influencing factors.

This questionnaire consists of 17 items rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Participants indicate their level of agreement with each item. Completion usually takes between 10 to 15 minutes.

The questionnaire is composed of three main components:

Creativity: Measures the level of innovation and ability to generate new ideas (items 1, 6, 9, 14).

Enthusiasm: Evaluates the learner's energy and motivation (items 2, 5, 8, 11, 15).

Absorption: Assesses concentration and immersion in learning activities (items 3, 4, 7, 10, 12, 13, 16, 17).

The validity of the questionnaire was confirmed through content validation by experts in education and psychology. In addition, confirmatory factor analysis (CFA) has shown that this tool effectively measures the three main components.

Reliability was measured using Cronbach's alpha coefficient:

Total questionnaire: 0.88

Creativity: 0.82

Enthusiasm: 0.85

Absorption: 0.87

These values indicate high internal consistency and reliability of the instrument.

Short Form of the Academic Infatuation Questionnaire by Martin & Jackson (2008):

The short form of the Academic Infatuation Questionnaire consists of 9 items designed to assess the level of academic infatuation. It uses a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) for scoring. This version does not include subscales and provides an overall measurement of academic infatuation among students and university learners.

Purpose: Measures the level of focus, infatuation, and academic motivation.

Validity and Reliability: Validity was assessed through factor analysis and expert verification. Cronbach's alpha coefficient has generally been reported above 0.80 across various studies.

Administration Method: The tool can be completed in approximately 5–10 minutes by students or university learners.

In this study, education infatuation refers to the score obtained by individuals on the short form of the Jackson and Martin (2008) education Infatuation Scale , which consists of 9 five-option questions. Possible scores range from 9 to 45. The short form is internally consistent, reliable, and shows an approximately normal distribution. Confirmatory factor analysis using LISREL has demonstrated acceptable model fit. In Martin and Jackson's (2008) study, to assess external validity of academic infatuation, the correlation of this construct with theoretically related constructs such as motivation and engagement was examined, using Martin's Motivation and Engagement Scale. The results supported the external validity of the scale.

Help-Seeking Behavior Scale:

To assess help-seeking behavior in individuals, the Help-Seeking Behavior Questionnaire by Ryan and Pintrich (1997) was used. This questionnaire was designed to evaluate help-seeking behaviors during the learning process in educational settings (among students and university learners). Its purpose is to measure students' tendency to seek help from various sources such as teachers and peers.

The questionnaire typically includes 13 to 15 questions , scored on a 5-point Likert scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree). Completion usually takes about 10 to 15 minutes .

This questionnaire consists of two main components:

1. Constructive Help-Seeking: Behaviors indicating active pursuit of help to better understand concepts, including items 3, 5, 7, 9, 11, and 13.
2. Avoidance of Help-Seeking: A tendency to avoid asking for help due to reasons such as shame or fear of judgment, including items 2, 4, 6, 8, 10, 12, and 14.

Methods of Validity and Reliability Assessment:

- Content Validity: Confirmed by experts in psychology and education.
- Construct Validity: Verified through Confirmatory Factor Analysis (CFA), which demonstrated good fit with the conceptual model of help-seeking behavior.
- Reliability: The Cronbach's alpha coefficient for the entire questionnaire is generally between 0.80 and 0.85 , indicating high internal consistency.

In order to assess help-seeking behavior among participants, the Help-Seeking Behavior Questionnaire by Ryan and Pintrich was used. The help-seeking scale consists of two dimensions :

1. Acceptance of Help-Seeking , and
2. Avoidance of Help-Seeking .

Each dimension contains 7 items , rated on a 5-point Likert scale . Items 1, 3, 5, 7, 9, 11, and 13 relate to avoidance of help-seeking , while items 2, 4, 6, 8, 10, 12, and 14 pertain to acceptance of help-seeking .

This questionnaire was translated and its validity and reliability were established by Ghadampour & Sarmad (2003) .Ryan and Pintrich (1997) calculated the validity of the

help-seeking avoidance subscale using factor analysis with Varimax rotation. The avoidance factor explained 27% of total variance .In the Persian version , Ghadampour and Sarmad (2003) also calculated the factor validity of the help-seeking avoidance dimension using factor analysis and found that this factor explains 29.4% of total variance , indicating acceptable construct validity.

Self-Directed Learning Instruction Method:

The self-directed learning training package (Jafari et al., 2019) is a developmental and improvement-oriented program designed to enhance learners' educational experiences. This package was developed using the Ateride – Sterling (2001) thematic analysis method , through a review of relevant books, English and Persian articles, and related theses. The analysis identified one overarching theme, ten organizing themes, and 62 basic themes. The content of the training sessions in the self-directed learning components package is presented as follows (see Table 1):

Table 1- Summary of Training Sessions on Self-Directed Learning (Jafari et al., 2019)

Session	Explanations
1	Introducing the participants, Outlining the goals, Guidelines for the workshop, Overview of the syllabus, Pretest
2	Self-regulation skills: Time management, topic selection, and learning planning
3	Self-monitoring skills: Learning evaluation, feedback, and enhancing learning
4	Self-learning skills: Goal setting, resource identification, and learning strategies
5	Contextual factors: Learning environment, group interaction, and collaborative classroom management
6	Motivation: Enthusiasm for learning, intrinsic and extrinsic motivation, enjoyment of learning
7	Cognitive strategies: Exploring ideas, internal orientation, and generating novel solutions
8	Personal traits: Openness to experience, external locus of control, and self-evaluation
9	Learner autonomy: Learning without assistance, responsibility-taking, and personal goal setting
10	Communication skills: Collaborative work, effective communication, and group decision-making
11	Emotional skills: Valuing learning, risk-taking, and self-confidence
12	Summary of the content, administration of the posttest

Research Findings

The descriptive findings of the demographic characteristics of the research sample are presented in Table 2.

Table 2 - Frequency and Percentage of Demographic Characteristics of the Research Sample

Demographic Variable	Levels	groups		Statistic	test significance
		Self-directed learning	Control		
Educational Level Frequency (Percentage)	tenth	(42/9)9	(45)9	0/067	0/967
	eleventh	(28/6)6	(30)6		
	twelfth	(28/6)6	(25)5		
Field of Study Frequency (Percentage)	Science	(76/2)16	(80)16	0/309	0/857
	Mathematics	(9/5)2	(5)1		
	Humanities	(14/3)3	(15)3		
Social Status Frequency (Percentage)	Weak	(0)0	(0)0	1/51	0/469
	Average	(42/9)9	(45)9		
	Good	(33/3)7	(45)9		
	Excellent	(23/8)5	(10)2		
(Deviation Mean Age (Standard		16/14(0/79)	16/15(0/81)	-0/028	0/977

The results of the Chi-square test presented in Table 2 indicated that there is no significant difference in the frequency of educational level, field of study, and socioeconomic status between the two groups ($p > 0.05$). Additionally, the results of the independent t-test also showed that the mean age of the two groups does not differ significantly ($p > 0.05$). The descriptive findings of the scores for the research variables, categorized by the experimental and control groups, are presented in Table 3.

Table 3. Descriptive Statistics for Research Variables

Variable	Group	Pre-Test		Post-Test		Follow-Up	
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
educational infatuation	Self-directed learning	32/65	5/92	40/1	4/96	39/75	4/79
	Control	35	4/77	35/1	4/83	35/2	4/73
Avoidance of Help-Seeking	Self-directed learning	21/6	4/48	16/7	3/22	17/15	3/42
	Control	20/05	5/18	20/05	5/18	20/25	5/01
Acceptance of Help-Seeking	Self-directed learning	26/2	5/26	29/75	3/97	29/65	4/29
	Control	26/9	4/95	26/9	4/95	27/05	5/09

As shown in Table 3, the mean scores of the research variables in the experimental group (self-directed learning training) show greater changes in the post-test and follow-up stages compared to the pre-test when compared to the control group.

The results of the comparison between subjects and within-subjects for the research variables are presented in Table 4.

Table 4 - Results of the Analysis of Between-Subjects and Within-Subjects Effects for Research Variables

Variable	Effect	Source	Sum of Squares	Degrees of Freedom	Degrees of Freedom	F	significance	Effect Size	Statistical Power
Educational Infatuation	Between-Subjects	Group	42/964	2	21/482	3/65	0/002	/1520	0/755
	Within-Subjects	Time Effect	10/1771	1/22	87/932	3/719	0/001	/8710	1/000
		Time × Group Interaction	51/377	2/45	21/810	9/354	0/001	/7650	1/000
Avoidance of Help-Seeking	Between-Subjects	Group	1/31561	2	80/65	2/754	0/001	/4610	1/000

Acceptance of Help-Seeking	Within-Subjects	Time Effect	42/131	1/22	3/84845	8/219	0/001	/6060	1/000
		Time × Group Interaction	2/26522	2/43	91/26	2/543	0/001	/4480	1/000
	Between-Subjects	Group	61/01	2	30/5	3/545	0/001	/3630	1/000
	Within-Subjects	Time Effect	17/871	1/44	11/729	1/6672	0/0001	/7460	1/000
		× Time Group Interaction	86/09	2/87	29/98	4/243	0/001	/5990	1/000

Based on the findings presented in Table 4, in the between-subjects analysis, the mean scores for the variables of educational infatuation ($F = 3.65$, $p < 0.05$), avoidance of help-seeking ($F = 24.75$, $p < 0.001$), and acceptance of help-seeking ($F = 35.54$, $p < 0.001$) show significant differences between the experimental and control groups.

According to the results of the within-subjects analyses, the main effect of time is significant, indicating that there are overall significant differences in the mean scores for all three variables: educational infatuation ($F = 39.7$, $p < 0.001$), avoidance of help-seeking ($F = 89.21$, $p < 0.001$), and acceptance of help-seeking ($F = 172.66$, $p < 0.001$) across the research phases.

The results also demonstrated that the interaction effect of time and group membership is significant for all three variables: educational infatuation ($F = 94.35$, $p < 0.05$), avoidance of help-seeking ($F = 23.54$, $p < 0.001$), and acceptance of help-seeking ($F = 43.24$, $p < 0.001$), indicating that the changes between the pre-test, post-test, and follow-up phases were significant in each group. The degree of difference between the phases in the educational infatuation variable was 76.5%, in avoidance of help-seeking it was 44.8%, and in acceptance of help-seeking it was 59.9%.

The results of the Bonferroni post-hoc test for comparing the experimental and control groups across the research phases, as well as the within-group changes in the experimental group concerning the research variables, are presented in Table 5.

Table 5 - Results of the Follow-up Test for Comparing the Two Groups by Research Variables in the Post-Test and Follow-Up Phases and Examining Phase Changes in the Experimental Group

Variable	Phase		Group	Mean Difference	Significance
Educational Infatuation	Pre-Test	Self- Directed Learning	Control	-2/35	0/144
	Post- Test	Self- Directed Learning	Control	Jan-5	0/001
	Follow- Up	Self- Directed Learning	Control	4/55	0/001
Avoidance of Help- Seeking	Pre-Test	Self- Directed Learning	Control	1/55	0/318
	Post- Test	Self- Directed Learning	Control	-3/35	0/007
	Follow- Up	Self- Directed Learning	Control	-3/1	Jan-00
Acceptance of Help- Seeking	Pre-Test	Self- Directed Learning	Control	-0/7	0/64
	Post- Test	Self- Directed Learning	Control	2/85	Feb-00
	Follow- Up	Self- Directed Learning	Control	2/65	Mar-00

As shown in Table 5, the mean differences in scores for all three variables educational infatuation, avoidance of help-seeking, and acceptance of help-seeking between the control group and the intervention group (self-directed learning training) were statistically significant in both the post-test and follow-up phases ($p < 0.05$).

Discussion and conclusion

The present study aimed to examine the impact of self-directed learning training on educational infatuation and help-seeking behavior in secondary school students. The results indicated that self-directed learning training was effective in increasing educational infatuation and acceptance of help-seeking while reducing avoidance of help-seeking among students, and these effects persisted at the follow-up stage. Furthermore, as per the researcher's investigations, no study has been found to be completely aligned with the present research to date. Accordingly, the following studies, which

partially align with the research hypothesis, will be discussed. The findings of the present study regarding the effectiveness of self-directed learning training on educational infatuation and help-seeking behavior in female secondary school students revealed a significant difference in the scores of educational infatuation and help-seeking behavior after the self-directed learning training package between the experimental and control groups. This indicates the efficacy of the self-directed learning training package on educational infatuation and help-seeking behavior; these findings are in line with those of Jafari and colleagues (2018), Safari and colleagues (2024), Mahmoud Mandani and Ziaie Qahnavieh (2024), Darabi and colleagues (2023), Van Tonder and colleagues (2022), and Morris (2019).

The findings of this research indicate that self-directed learning training plays a significant role in increasing educational infatuation and enhancing help-seeking behaviors among secondary school students. This type of training transforms the individual into an aware, responsible, and independent learner who is able to manage their own learning process and can effectively utilize help-seeking as a smart strategy in necessary situations. In this regard, Jafari et al. (2018) demonstrated that self-directed learning can lead to increased academic responsibility and reduced procrastination. This responsibility creates the necessary foundation for carrying out learning activities with greater commitment and, consequently, increased educational infatuation. Additionally, this sense of responsibility encourages students to be more willing to seek help from teachers and classmates when needed. In line with this, the research conducted by Safari et al. (2024) also supports the idea that self-directed learning can effectively increase the adaptability and academic vitality of students with specific characteristics. This adaptability and internal energy facilitate engagement in learning activities and enhance help-seeking behaviors.

Furthermore, Mahmoudi Mandani and Ziaie Qahnavieh (2024) showed that self-directed learning training enhances self-efficacy and academic persistence, empowering students to cope with learning challenges. This high level of self-efficacy enables students to seek help without fear of failure and judgment from others. Additionally, Darabi et al. (2023) emphasized that self-directed learning can boost students' academic enthusiasm and resilience. This enthusiasm and ability to overcome learning obstacles create a conducive environment for engagement and social learning interactions. Moreover, Van Tonder et al. (2022) demonstrated in their study that self-directed learning can contribute to the empowerment of students in terms of personal and academic well-being. This empowerment allows students to feel secure in the learning environment and fosters a greater willingness to interact with others. In line

with these findings, Morris (2019) also highlighted that self-directed learning environments, even in informal online contexts, can enhance learning participation, collaboration, and positive interactions in formal educational settings. These findings suggest that self-directed learning is not solely dependent on independence; rather, by enhancing social-academic interactions, it contributes to increased educational infatuation and help-seeking behaviors.

This study indicates that self-directed learning training can serve as an effective educational intervention for increasing academic infatuation and help-seeking behaviors among secondary school students. These trainings, by strengthening management and motivational skills, positively impact not only academic performance but also improve students' social interactions. They can play a significant role in reducing avoidant behaviors and promoting a constructive help-seeking culture in schools.

Every research has its limitations, and the present study is no exception. This research was conducted only on female secondary school students from six districts in Isfahan, and caution should be taken in generalizing the data and results of this study.

It is recommended that this research be conducted on other samples in different cities and on male students as well, and that the results be compared. In line with the application of the findings of this research, considering the importance of educational variables among students, it is suggested that school counselors hold cognitive load and self-determination training as educational courses for students.

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