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Comparing the Effectiveness of Self-hypnosis and Future Perspective Training on Academic Determination in Students with Learned Helplessness

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Given the effective role of psychological strategies in enhancing academic performance, it is of particular importance to explore new methods. This study compares the effectiveness of these two methods on academic determination in students with learned helplessness .The research method was semi-experimental with a pre-test, post-test, and follow-up design with a control group. The research population consisted of all female students of the first high school of Qaemshahr who were studying in the academic year 2023-2024. Of these, 45 people were selected through purposive sampling and randomly divided into two experimental groups of 15 people along with a control group. They answered the Quinless and Nilsson (1988) Clark, Maleki Academic Grit Scale (2019)

Academic Determination Questionnaire in three pre-post-tests as well as 2-month follow-up sessions. The subjects in the experimental group underwent self-hypnosis and future vision training in groups for 6 sessions, one 90-minute session per week, but the control group was not given training. The data were analyzed using SPSS software via the mixed multivariate analysis of variance test and the repeated measures multivariate analysis of variance test .The results revealed that there is a significant difference between the effectiveness of self-hypnosis and future vision training on academic determination in students with learned helplessness. Specifically, self-hypnosis training significantly enhanced academic determination compared to the control group. These findings highlight the high effectiveness of self-hypnosis as a psychological intervention in boosting motivation and academic persistence. In conclusion, the study demonstrates that self-hypnosis is a powerful tool for ameliorating academic determination in students experiencing learned helplessness, suggesting that it can be effectively incorporated into educational as well as counseling programs to boost students' motivation, resilience, and persistence in learning tasks.

Keywords: students, self-hypnosis training, future perspective, academic determination, learned helplessness.

Today, education professionals underscore the importance of improving academic quality and student success (Ghasempour et al., 2023). Meanwhile, some students face problems, including learned helplessness. For years, educators have advocated for a new definition of the word “failure” as “a learning opportunity”. However, when failure becomes so normal and expected in a student’s life that it becomes a way of life, it can result in learned helplessness (Maghalian et al., 2023).

Learned helplessness is a psychological phenomenon whereby people feel they have no control over the events or circumstances that happen to them (Pérez-Marco et al., 2025). This can result in feelings of hopelessness and lack of motivation (Wang et al., 2025). People who struggle with

learned helplessness tend to complain a lot as well as feel overwhelmed and unable to make positive changes in their circumstances (Shastri et al., 2024). In school, learned helplessness can result in poor grades, failure, and behavioral problems (Muigg et al., 2024). Students who experience repeated failures in school are particularly susceptible to developing a helpless response style (Lim et al., 2024). Owing to repeated academic failure, these students doubt their own abilities. This causes them to doubt whether they can do anything to overcome their challenges. As a result, they diminish their efforts, especially when cnfronted with difficult problems, which in turn leads to more failures, even when the effort clearly culminates in success (Cronan et al., 2025). In students, this pattern of giving up when faced with difficult tasks reinforces the belief that they cannot overcome their academic issues (Galvez-Sánchez et al., 2019). For students who experience anxiety, stress, or trauma, the symptoms of learned helplessness are even more severe. Helplessness has been defined as "a response to loss of control which involves cognitive, motivational, and emotional deficits arising from the expectation that responses and outcomes are independent of one another" (Huang et al , 2024).

Negative self-hypnosis is closely pertained to Seligman's (1975) theory of learned helplessness, which involves motivational, cognitive, and emotional problems (Jones et al., 2024). According to this theory, learned helplessness takses place when an individual feels unable to change their outcomes or circumstances, resulting in diminished motivation and feelings of helplessness (Kekecs et al, 2024).

The process of negative self-hypnosis specifically involves three hypnotic components: i) disengagement of uncritical thinking which leads to negative activation of unconscious processes; ii) active negative imagery; and iii) posthypnotic suggestions expressed in the form of negative affirmations (Leo, Bruno, Proietti, 2025). These three elements cause negative changes in the person's mind as well as behavior and direct their unconscious processes towards negativity. Negative self-hypnosis, through reinforcing these negative beliefs and lowering the person's ability to change their situation, can have the same detrimental effects and perpetuate this feeling of helplessness (Queirolo et al, 2025). This response-outcome dissociation is a significant assumption in the theory of learned helplessness, emphasizing that the person's motivation to take any action is reduced by the belief that there is no association between their behavior and the outcome (Motz et al., 2025).

Future perspective is a new approach in educational psychology that has proved to have positive effects on boosting academic performance and enhancing academic motivation, especially among students who cnfront problems such as learned helplessness. We humans possess and develop images of the future throughout our lives (Pawlak, Moustafa, 2023). Some of these are inherently very personal, whereas others are clearly socially shared (Burger, Mortimer, 2021). Some of these images operate on a conscious level, while others impact our decisions, choices, and estimates on an unconscious level. Even though we cannot truly know anything about the future, thinking about the future is what humanity is meant to do for the sake of life (Hong, 2025).

In this context, future vision training is proposed as a strategy to combat learned helplessness. This approach specifically helps students to create a positive and realistic image of their future. Research has indicated that a positive and purposeful outlook on the future can help boost academic hope and goal orientation (Starr, Farr, 2025). Future perspective actually means that students learn through various educational and counseling activities through which they can draw a bright and successful future for themselves, even if they have faced failures or setbacks in the past; in other words, they learn that their efforts can contributes to alteration of circumstances, which directly affects their academic orientation and motivation. Various studies reveal that teaching a future perspective helps students feel more in control of their lives and, thereby strengthening their academic motivation (Chan, Erduran, 2025). In recent years, Academic Grit has been proposed as one of the most significant factors for success in life. Students in the 21st century live in a rapidly changing, interconnected, and diverse world, what Bauman defines as a diverse world (Pak et al., 2025). New economic, digital, demographic, environmental, and cultural forces are transforming the lives of young people worldwide, and as such, administrators and educators are increasingly calling on schools to incorporate skills such as problem solving, critical thinking, and collaboration into their curricula (Cheng, Deng, Li, 2024).

Setlogelo and Nyoni (2024) have noted that success is more about determination than being about learning capacity, luck, or talent. Determination refers to the passion and perseverance to achieve long-term goals and has a significant influence on achieving success. They also reported that resilient people are

more likely to have healthy emotional lives. Contrary to popular belief that talent is a key factor in success, Setlogelo and Nyoni believe that effort and perseverance are even more important than talent and can help individuals who may have less talent to reach a higher level of success. Determination, perseverance, and effort are the result of a combination of genetic, behavioral, and psychological factors, and everyone has the potential to become a successful person through strengthening their perseverance.

Given the importance of the variables mentioned in achieving success and measuring the effect of these two methods on students who may have been affected by negative experiences in education, such as learned helplessness, this study aims to compare the effectiveness of self-hypnosis training and future perspective on enhancing academic determination in students with learned helplessness and seeks to answer the question of whether self-hypnosis training and future perspective can be effective on ameliorating academic determination in students with learned helplessness?

Research Hypotheses:

1. Self-hypnosis training significantly improves academic determination in students with learned helplessness.
2. Future perspective training significantly improves academic determination in students with learned helplessness.
3. There is a significant difference between the effects of self-hypnosis training and future perspective training on academic determination in students with learned helplessness.

Method

The research method was a semi-experimental design with a pre-test, post-test, and follow-up with a control group. The research population consisted of all female high school students in Ghaemshahr who were studying in the academic year 2023-2024. The sample was selected through purposive sampling with the sample size being based on similar studies, such as the study by Linehan and Dimeff et al. (2002), considering an effect size of .40, a confidence level of .95, a power of .80, and a dropout rate of 10%. Thirty subjects were calculated for each group. They were randomly assigned to experimental as well as control groups and responded to the Quinnells and Nelson's Learned Helplessness (1988) Clark along with Maleki Academic Grit Scale (2019) Academic Determination Questionnaire in three pre-post-test and 2-month follow-up sessions.

Inclusion criteria included: 1. Female students; 2. High school students; 3. Scores above the cut-off line on the Quineless and Nielsen Learned Helplessness Test; 4. No participation in concurrent interventions; 5. Consent of parents and students to participate in this project; and 6. Student cooperation in the research process, and no absence from the educational process. The exclusion criteria were more than two absenteeism sessions, not cooperating and not completing the specified assignments in class, and unwillingness to continue participation in the research process.

The first experimental group was trained in self-hypnosis for 6 sessions (1 session per week, 90 minutes) in a group setting based on the self-hypnosis treatment protocol of Olness, MacDonald and Uden in 1987. On the other hand, the second experimental group was trained in future perspective training for

6 sessions in a group setting based on the future perspective training treatment protocol of Pistema et al., written in 2009 (cited in Clark et al, 2015). Note that the control group did not receive any training.

Instrument

Learned Helplessness Questionnaire

This questionnaire was designed by Quinnells and Nelson's in 1988, which consists of 20 items, 4 options based on a Likert scale; with its scoring ranging from completely disagree as score 1 to completely agree as score 4. The scores in this questionnaire range between 20 and 80, with higher scores reflecting greater learned helplessness. The cut-off score of this questionnaire is 50. Quinnells and Nelson's (1988). The validity of this questionnaire was reported as .79 and its reliability and Cronbach's alpha were reported as .86. Through appraising the original version of the Learned Helplessness Questionnaire against other existing scales such as the Beck Depression Inventory, the correlation coefficient of this scale was .25 while with the Cooper Smith Self-Esteem Scale, it was reported as .62 and its reliability was reported as .85. The Cronbach's alpha of this scale was obtained as .94 in the study by Smallheer, Vollman and Dietrich (2018). In Iran, in the study by Mirnasab and Garaaghaji (2015), factor analysis using the principal components method was employed to determine the construct validity of the scale. In the analysis of the questionnaire data, the sampling adequacy index coefficient was calculated as .85 and the Bartlett test value (correlation matrix adequacy index) was calculated as 3237.30, which was significant at the .0001 level. The reliability of this questionnaire using Cronbach's alpha

coefficient was reported to be .93. Again, the reliability of this questionnaire in the present study was calculated to be .88 based on Cronbach's alpha coefficient.

Academic Determination Questionnaire

This questionnaire was designed and developed by Clark and Maleki in 2019 to measure academic determination. The academic determination questionnaire has 10 questions and 3 components: willpower, resilience, and focus. It measures academic determination based on a Likert scale with questions such as (Even when I could have done something more interesting, I still put my best effort into schoolwork). The dimensions of the questionnaire included willpower, resilience, and focus (Clark, Malecki, 2019). After examining the construct validity, a reliability test of the instrument was conducted, where the Cronbach's alpha coefficient was .80, which lies in the good category. According to Hair et al. (2010), a measurement tool has desirable reliability if its Cronbach's alpha value is greater than .70. The Cronbach's alpha coefficient calculated in the study by Chiniforoushan, Taher Neshat-Dust, and Abedi (2016) for this questionnaire was estimated to be above .77. The reliability of this questionnaire in the present study, as calculated using Cronbach's alpha coefficient, has been .81.

Self-hypnosis Training Protocol

In the present study, the treatment protocol was developed based on the training package of Olens et al (1987). This program was implemented by the therapist in one 90-minute session per week for 6 weeks.

Quality of Work Life

To measure Quality of Work Life, Walton Quality of Work Life Questionnaire (1973), was used. It contains 27 items and 8 subscales: Fair and Adequate Pay, Safe and Healthy Working Conditions, Opportunity for Growth and Continuous Security, Constitutionalism in the Organization, Social Relevance of Work Life, Overall Life Space, Social Integration and Cohesion in the Organization, and Development of Human Capabilities. The response scale for this questionnaire is a 5-point Likert scale. This questionnaire has been used in numerous domestic and international studies, indicating its high validity and reliability. In the present study, the Cronbach's alpha for this questionnaire was .86.

Table 1
Description of the Self-hypnosis Training Protocol Package

Session	Content and Activities
Session 1: Introduction to self-hypnosis and building a close relationship	Objective: To familiarize students with the concept of self-hypnosis and its benefits for controlling stress as well as boosting academic performance. Content: 1. Explanation of self-hypnosis and its difference from sleep. 2. Investigating the benefits of self-hypnosis in enhancing concentration, reducing anxiety, and boosting self-esteem. 3. Explanation of the relationship between negative self-hypnosis and learned helplessness. 4. Introduction to basic self-hypnosis techniques and how to do it. Activities: - Physical relaxation and mindfulness exercises. - Introduction to the stages of self-hypnosis and how to start the exercises.
Session 2: Teaching basic self-hypnosis techniques	Objective: To teach basic self-hypnosis techniques to mitigate stress and increase concentration. Content: 1. Basic relaxation techniques: deep breathing, muscle relaxation. 2. Teaching positive word techniques as well as their effect on improving mental state. 3. Introduction to how to use mental instructions to create positive changes in individual beliefs. 4. The relationship between self-hypnosis and academic optimism. Activities: - Breathing and muscle relaxation exercises. - Visualizing success in facing academic

	challenges and exams.
Session 3: Strengthening self-confidence and academic optimism using self-hypnosis	Objective: Using self-hypnosis to boost academic optimism and self-confidence. Content: 1. Investigating the relationship between self-hypnosis and academic optimism. 2. Using self-hypnosis to identify and change negative beliefs about academic abilities. 3. Techniques for strengthening self-confidence and self-belief in academic situations. 4. Visualizing successful situations in the academic environment. Activities: - Self-hypnosis exercises aimed at strengthening feelings of self-belief and success. - Using positive words and images of success in exams and academic activities.
Session 4: Dealing with learned helplessness using self-hypnosis	Objective: Dealing with feelings of learned helplessness and strengthening academic determination through self-hypnosis. Content: 1. Examining the concept of learned helplessness and its influence on academic performance. 2. Using self-hypnosis to deal with feelings of helplessness and failure. 3. Introducing techniques for changing attitudes towards academic problems and challenges. 4. Creating a plan in the mind to rebuild self-confidence and motivation. Activities: - Self-hypnosis exercises to simulate success in solving academic problems. - Using mental images to deal with challenges and establish motivation.
Session 5: Strengthening academic determination and future orientation with self-hypnosis	Objective: Using self-hypnosis to strengthen academic determination and create future orientation. Content: 1. Examining the importance of academic determination as well as its role in individual success. 2. Strengthening the will to achieve academic goals through self-hypnosis. 3. Teaching self-hypnosis techniques to set and pursue long-term academic goals. 4. The role of self-hypnosis in dealing with obstacles and maintaining motivation on the path to education. Activities: - Visualizing successful situations in education and creating a plan to achieve goals. - Using self-hypnosis exercises to strengthen academic determination.
Session 6: Reviewing the final topics and exercises of self-hypnosis	Objective: Reviewing all topics and techniques learned as well as creating a long-term plan for using self-hypnosis. Content: 1. Reviewing the self-hypnosis techniques learned in previous sessions. 2. Examine how to employ self-hypnosis to maintain academic optimism and academic determination in the long term. 3. How to use self-hypnosis in the face of academic and social pressures. 4. Provide recommendations for continuing to practice and use self-hypnosis independently. Activities: - Conduct a group self-hypnosis exercise to deal with challenges and enhance academic motivation. - Set long-term academic goals and use self-hypnosis to achieve them.

Future Perspective Training Protocol

Pistema et al (2009) citing Clark et al (2015) designed a training program aiming to strengthen personal connection with one's future goals. The program helps students understand that what they do in school today affects their future opportunities. This can serve as a stimulus for enhancement of motivation, goal setting, and planning to achieve those goals.

Table 2

Future Vision Training Protocol Package Description

Session	**Content and Activities**
Session 1: Getting to know the future vision and its importance in one's life	Objective: To become familiar with the concepts of past, present, and future as well as their impact on individual behavior and decisions. Content: 1. Introducing the general objective of the course and explaining the importance of time perspective in personal life. 2. Discussing the relationship between past, present, and future as well as personal and academic life. 3. Examining how what we do today at school affects the future. 4. Introducing fundamental concepts such as academic hope and its impact on motivation and goals. Activities: - Introducing the concept of time perspective (past, present, and future). - Group discussion about personal experiences in each part of life.
Session 2: Examining negative behaviors and replacing them with positive thoughts	Objective: Identifying negative thoughts and how to change them to achieve goals. Content: 1. Exploring the characteristics of thoughts that prevent success (such as belief in external control, hopelessness about the future). 2. Introducing techniques for changing negative thoughts to positive thoughts and their influence on future decision-making. 3. Familiarizing with assertiveness skills and their application in different situations. Activities: - Simulate different situations and visualize yourself in successful situations. - Use group exercises to identify obstacles and deal with them.
Session 3: Setting goals and how to plan for the future	Objective: Familiarize yourself with goal-setting methods and how to plan to achieve them. Content: 1. Teach the goal-setting process (short-term and long-term goals). 2. Introduce different goal-orientation strategies and how they affect motivation as well as academic determination.

	3. Examine the role of future vision and hope in setting personal goals. Activities: - Practice setting personal goals (short-term and long-term). - Analyze existing obstacles and how to deal with them.
Session 4: Visualizing success and dealing with obstacles	Objective: Use visualization to deal with and overcome upcoming obstacles. Content: 1. Introduce visualization techniques and their impact on success. 2. Simulate different situations and visualize yourself in those situations. 3. Examine personal obstacles that may arise in achieving goals and techniques for dealing with them. Activities: - Study and discuss success in a specific field (such as sports, art, or education). - Visualize an imaginary classmate who has negative traits and how to change his or her behaviors.
Session 5: Getting to know your strengths and weaknesses and replacing negative futurism with positive ones	Objective: Identify personal strengths as well as weaknesses and develop a positive outlook on the future. Content: 1. Examine your strengths along with weaknesses and how to use them to achieve your goals. 2. Replace negative futurism with a positive outlook on the future. 3. Introduce the concepts of academic hope and its impact on goal setting and motivation. Activities: - Cognitive exercises to identify strengths and weaknesses. - Deep breathing and muscle relaxation exercises to reduce stress and increase focus.
Session 6: Reviewing topics and personalizing goals and success	Objective: Review previous discussions, analyze student progress, and provide practical recommendations for the future. Content: 1. Review and summarize the discussions of previous sessions. 2. Visualize yourself in academic and career success in the future. 3. Examine the ultimate obstacles that may arise on the path to goals and ways to handle them. 4. Personalize the discussion and provide necessary recommendations for students. Activities: - Visualizing yourself in various successes (academic, athletic, artistic). - Grouping and discussing challenges and how to achieve long-term goals.

The data were analyzed by SPSS software using the mixed multivariate analysis of variance test and the repeated measures multivariate analysis of variance test with a significant level of $p < .05$.

Results

The descriptive findings of the study including the mean and standard deviation of academic determination scores in the self-hypnosis experimental group, the future vision training experimental group, and the control group at the pre-test, post-test, and follow-up stages, are reported in Table 3.

Table 3
Descriptive Findings Related to the Research Variables

Variable	statistic	group					
Academic Determination		Self-Hypnosis Experimental Group		Future Vision Training Experimental Group		Control Group	
		M	SD	M	SD	M	SD
	Pre-test	30.40	9.31	31.40	8.16	29.66	9.88
	Post-test	38.40	7.41	41.20	6.43	29.46	7.68
	Follow-up	43.33	5.40	45.00	5.79	31.20	6.04

Based on Table 3, the mean scores of academic determinations at the pre-test, post-test, and follow-up stages were 30.40, 38.40, and 43.33 in the self-hypnosis experimental group; 31.40, 41.20, and 45.00 in the future vision training experimental group; and 29.66, 29.46, and 31.20 in the control group. Before investigating the effectiveness of self-hypnosis and future vision training on academic determination, the assumptions of covariance analysis, including the homogeneity of variances and the homogeneity of regression slopes, were assessed. Table 4 details the results of Levene's test for the homogeneity of variance of academic determination at the post-test and follow-up stages.

Table 4
Results of Levene's Test for the Equality of error Variances of the Dependent Variables at the Post-Test and Follow-Up Stages

Dependent Variable	Stage	df1	df2	F	Sig
Academic Determination	Post-test	2	42	2.068	.13
	Follow-up	2	42	2.525	.092

As provided in Table 4, Levene's test for the academic determination variable was non-significant at both the post-test stage (F = 2.068, p = .139) and the follow-up stage (F = 2.525, p = .092). Accordingly, the error variances of the three groups for academic determination do not differ significantly, and the assumption of homogeneity of variances at the post-test and follow-up stages is confirmed. Table 3 indicates the findings of the homogeneity of regression slopes between the covariate (pre-test) and the dependent variable (post-test and follow-up) across the factor levels (experimental and control groups) at the post-test and follow-up stages.

Table 5
Results of the Homogeneity of Regression Slopes between the Covariate (Pre-test) and the Dependent Variable (Post-test and Follow-up) Across the Factor Levels (Experimental and Control Groups)

Dependent Variable	Stage	Sum of Squares	df	Mean Square	F	Sig
Academic Determination	Post-test	2.094	2	1.047	.078	.925
	Follow-up	15.607	2	7.803	.801	.456

As presented in Table 5, the interaction between the covariate (pre-test scores of academic determination) and the dependent variable (post-test academic determination) across the factor levels (experimental and control groups) is not significant. Thus, the assumption of homogeneity of regression slopes for the pre-test and post-test academic determination scores across the factor levels is confirmed.

Likewise, the interaction between the covariate (pre-test academic determination) and the dependent variable (follow-up academic determination) across the factor levels (experimental and control groups) is not significant (F =.801, p = .456). Hence, the assumption of homogeneity of regression slopes for the pre-test and follow-up academic determination scores across the factor levels is also confirmed.

In order to inspect and compare the effectiveness of self-hypnosis and future vision training on academic determination, a univariate analysis of covariance (ANCOVA) was performed on the data. The results are provided in Table 6.

Table 6
Summary of Univariate ANCOVA Results for Comparing the Mean Academic Determination Scores of the Experimental Groups and the Control Group at the Post-test Stage

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig	Eta Squared
Academic Determination	group	928.763	2	464.382	36.291	.001	.639
	Pre-test	1653.092	1	1653.092	129.187	.001	.759
	Error	524.642	41	12.796			

According to Table 6, at the post-test stage, the univariate ANCOVA yielded an F ratio of 36.291 ($p < .001$) for academic determination. This finding indicates that, at the post-test stage, there is a significant difference in academic determination between the self-hypnosis experimental group, the future vision training experimental group, and the control group.

To further explore these differences, the Bonferroni post hoc test was utilized to compare the adjusted mean scores of academic determinations between the self-hypnosis experimental group, the future vision training experimental group, and the control group. The results are outlined in Table 7.

Table 7
Results of the Bonferroni Post Hoc Test for Comparing the Adjusted Mean Scores of Academic Determinations Among the Experimental Groups and the Control Group at the Post-test Stage

Variable	Groups Compared	Adjusted Mean	Mean Difference	Sig
Academic Determination	Self-Hypnosis Experimental Group – Control Group	30.030-38.461	8.431	.001
	Future Vision Training Experimental Group – Control Group	30.030-40.575	10.545	.001
	Self-Hypnosis Experimental Group – Future Vision Training Experimental Group	40.575-38.461	-2.115	.341

Based on Table 7, at the post-test stage, the adjusted mean difference in academic determination between the self-hypnosis experimental group and the control group was 8.431, which is statistically significant at the .001 level. Thus, it can be concluded that self-hypnosis had a significant impact on improving academic determination. Likewise, the adjusted mean

difference in academic determination between the future vision training experimental group and the control group was 10.545, which is statistically significant at the .001 level. As such, future vision training had also a significant influence on improving academic determination. Further, the adjusted mean difference in academic determination between the self-hypnosis experimental group and the future vision training experimental group was –2.115, which is statistically non-significant at the .341 level. Hence, it can be concluded that there is no significant difference between the effectiveness of self-hypnosis and future vision training in improving academic determination. To examine stability of the effects of self-hypnosis and future vision training on academic determination, a univariate analysis of covariance (ANCOVA) was first conducted on the follow-up data, with its results reported in Table 8.

Table 8
Summary of Univariate ANCOVA Results for Comparing the Mean Academic Determination Scores of the Experimental Groups and the Control Group at the Follow-up Stage

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig	Eta Squared
Academic Determination	group	1517.876	2	758.938	78.626	.001	.793
	Pre-test	995.979	1	995.979	103.183	.001	.716
	Error	395.755	41	9.653			

As reported in Table 8, at the follow-up stage, the univariate ANCOVA yielded an F ratio of 78.626 ($p < .001$) for academic determination. This finding shows that, at the follow-up stage, there is a significant difference in academic determination

between the self-hypnosis experimental group, the future vision training experimental group, and the control group.

To further explore this difference, the Bonferroni post hoc test was employed to compare the adjusted mean scores of academic determinations between the self-hypnosis experimental group, the future vision training experimental group, and the control group, with the results presented in Table 9.

Table 9
Results of the Bonferroni Post Hoc Test for Comparing the Adjusted Mean Scores of Academic Determinations Among the Experimental Groups and the Control Group at the Follow-up Stage

Variable	Groups Compared	Adjusted Mean	Mean Difference	Sig
Academic Determination	Self-Hypnosis Experimental Group – Control Group	31.637-43.381	11.743	.001
	Future Vision Training Experimental Group – Control Group	31.637-44.515	12.878	.001
	Self-Hypnosis Experimental Group – Future Vision Training Experimental Group	44.515-43.381	-1.135	.971

As outlined in Table 9, at the follow-up stage, the adjusted mean difference in academic determination between the self-hypnosis experimental group and the control group was 11.743, which is statistically significant at the .001 level. As such, it can be concluded that the effectiveness of self-hypnosis on enhancing academic determination remained significantly stable over the follow-up period.

Similarly, the adjusted mean difference in academic determination between the future vision training experimental group and the control group was 12.878, which is statistically significant at the .001 level. Thus, it can be concluded that the effectiveness of future vision training on improving academic determination also remained significantly stable during the follow-up period.

Also, the adjusted mean difference in academic determination between the self-hypnosis experimental group and the future vision training experimental group was –1.135, which is statistically non-significant at the .971 level. Thus, it can be concluded that there is no significant difference between stability of the effects of self-hypnosis and future vision training on ameliorating academic determination along the follow-up period.

Discussion

The findings of this study revealed that both interventions—self-hypnosis training and future-time-perspective (FTP) training—significantly ameliorated academic grit among students experiencing learned helplessness, with self-hypnosis presenting superior effectiveness. These results can be interpreted within the theoretical and empirical literature on learned helplessness, cognitive–emotional processes, and motivational frameworks.

First, the findings align with extensive literature outlining learned helplessness as a condition stemming from repeated failure, diminished self-efficacy, and motivational decline (Piers-Marco et al., 2025; Shastri et al., 2024; Wang et al., 2025). Interventions targeting cognitive reconstruction,

restoration of perceived control, and activation of self-regulatory mechanisms have consistently proven effective (Huang et al., 2024; Mirnasab & Garraahaghi, 2015). Self-hypnosis directly impacts these mechanisms by mitigating rumination, enhancing attentional focus, inducing deep relaxation, as well as replacing negative schemas with positive imagery and success-oriented suggestions (Jones et al., 2024; Mutz et al., 2025; Coxes et al., 2024). Through these pathways, self-hypnosis helps students shift from the cycle of "incapability → fear of failure → avoidance" to "control → effort → persistence," thereby boosting academic grit.

The findings are also concordant with prior studies indicating the effectiveness of self-hypnosis in boosting motivation, resilience, self-efficacy, and academic performance (Moradi et al., 2020; Salami et al., 2024; Pourhossein et al., 2020; Olness et al., 1987). According to Samadi et al. (2015), the most successful psychological interventions are those that promote emotion regulation and perceived control—precisely the domains targeted by self-hypnosis.

Meanwhile, the effects of *future-time-perspective training* also accord with empirical evidence. Positive and goal-directed future orientation is strongly correlated with academic hope, commitment to goals, diminished academic burnout, and increased engagement (Heidari et al., 2005; Hong, 2025; Pawlak & Mustafa, 2023). Studies by Tourkazadeh & Keshavarzi (2016) and more recent works (Chan & Erduran, 2025; Starr & Farr, 2025) suggest that FTP training constructs a "meaningful future narrative," which functions as a motivational buffer against helplessness. In the present study, students who

constructed meaningful future visions developed stronger directionality, which in turn augmented their academic grit.

Nevertheless, the superiority of self-hypnosis over FTP can be explained through two theoretical perspectives. First, learned helplessness is predominantly a *cognitive–emotional dysregulation* rather than a mere deficit in planning for the future. Thus, interventions that directly target negative cognitive biases, maladaptive beliefs, and dysregulated emotions tend to yield more robust outcomes. Self-hypnosis, as an internally driven, experiential technique, induces rapid changes in emotional regulation, anxiety reduction, success-imagery activation, and self-efficacy conditioning (Quirolo et al., 2025; Leo et al., 2025). Furthermore, the deep-focus trance state generated by self-hypnosis activates motivational and persistence-related neural pathways—an effect supported by neuropsychological findings (Clark et al., 2015).

In contrast, even though FTP is highly beneficial, its effects are primarily *cognitive–meaning-based*. For students with severe helplessness, the perceived gap between a "struggling present self" and a "successful future self" may be too large, lowering the relative impact of FTP. This interpretation aligns with the findings of Berger & Mortimer (2021) and Pawlak & Mustafa (2023), who highlight that FTP is most effective when individuals already possess adequate levels of self-efficacy and emotional regulation.

The present findings are further in accordance with the literature on academic grit. Studies by Clark & Maleki (2019), Cheng et al. (2024), and Setlogolo & Nyoni (2024) indicated that perseverance, goal-directedness, emotional stability, and

self-regulation improve through psychological interventions grounded in self-awareness and future-orientation. The enhancement in academic grit observed here reflects those same mechanisms.

Overall, the results suggest that both interventions affect different components of academic grit, yet via distinct mechanisms:

- **Self-hypnosis** primarily enhances emotional regulation, lowers anxiety, strengthens internal locus of control, and facilitates success-imagery.
- **Future-time-perspective training** enhances goal-setting, meaning-making, academic hope, and sustained motivation.

It is therefore recommended that a combined, structured program incorporating both approaches be developed for school-based psychological support. Such an integrated package may be particularly advantageous for students suffering from helplessness, motivational decline, or negative self-schemas.

The study's limitations—including the small sample size, the single-gender sample (female students only), and the short follow-up period—should be considered when interpreting the findings. Future research is suggested to apply randomized controlled trials with larger and more diverse samples, long-term follow-ups, and comparisons with alternative motivational as well as cognitive-emotional interventions.

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