

## **The Relationship between Perfectionism, Thinking Style, Self-awareness, and Positive Self-talk With Self-efficacy in Female Students**

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### **Abstract**

The present study aimed to investigate the relationship between perfectionism, thinking style, self-awareness, and positive self-talk with self-efficacy in students. A descriptive-correlational design was used for this study. The statistical population of the study included students of Azad University in Amol in the academic year 1403, of whom 90 were selected as a sample using a convenience method. The research tools included the Hill et al. Perfectionism Questionnaire (2004), the Sherer et al. General Self-Efficacy Questionnaire (1982), and the Sternberg-Wagner Thinking Style Questionnaire (1991).

Data analysis was performed using Pearson correlation coefficient at the descriptive (mean and standard deviation) and inferential (Pearson correlation coefficient) levels using SPSS26 software. The findings showed that there is a significant positive relationship between self-efficacy and all thinking styles in all students except introverted and holistic thinking. There is also a significant positive relationship between positive perfectionism and students' self-efficacy, and there is a significant negative relationship between self-efficacy and the negative dimension of perfectionism. In other words, the higher the level of positive perfectionism in students, the higher the feeling of self-efficacy, and the higher the level of negative perfectionism in students, the lower the feeling of self-efficacy. On the other hand, self-awareness and self-talk increase the variables. Considering that thinking styles and dimensions of perfectionism can be learned and transferred, it is suggested that the authorities familiarize students with different ways of thinking styles and positive and negative dimensions of perfectionism through the design and implementation of educational courses.

**Keywords:** Perfectionism, Thinking Style, Self-Efficacy

### **Introduction**

Students are among the talented, chosen groups of society and the builders of the country's future, and social planning is of great importance to them,

because any disruption in their lives hinders the growth and development and lack of development of this group's talent, and ultimately harms society (Asgharnejad et al., 2013). One of the important issues related to the success and progress of students is their self-efficacy. Self-efficacy is one of the factors that helps an individual to demonstrate a high level of performance and progress (Arabian et al., 2001). Self-efficacy is defined as an individual's basic belief in when he or she can learn, and it is a fundamental factor that affects an individual's actual ability to learn. Self-efficacy is an individual's overall confidence in themselves to successfully complete assignments (Hammond, 2015). Self-efficacy beliefs are also very effective in influencing an individual's behavior, and a person with a high level of self-efficacy is more successful and hopeful in doing things. In general, the feeling of self-efficacy is also influenced by a combination of cognitive, emotional, motivational, and physical characteristics and objective acquired matters of gaining experiences, successful performance, and learning to the point of mastery (Lomb, 2018).

Self-efficacy beliefs are formed from four sources: personal experiences, vicarious experiences, verbal persuasion, and biological states. The most influential of these sources is personal experiences because it is based on experiences in which the individual has mastered. Success raises mastery expectations. Consecutive failures that occur at the beginning of events reduce self-efficacy beliefs (Kadivar, 2003). Self-efficacy beliefs affect thought patterns, and the higher the perceived self-efficacy belief of an individual, the more effort he or she will put into cognitive processing of work and analytical thought (Bandura, 2001).

Bandura (2004), believes that people with high self-efficacy traits are very eager to achieve their goals and instead of focusing on failures and weaknesses, they focus on positive traits and victories. Self-efficacy refers to the strength of an individual's personality in facing problems in achieving goals and success, and rather than being influenced by an individual's intelligence and learning ability, it is influenced by personality traits such as believing in oneself, being hardworking and not giving up, examining the causes of failure when failing, arranging new social arrangements and methods to achieve goals, and controlling impulses, as well as thinking style (Khaksar-Boldaji, 2005).

People do not view the world the same way, and each person may have different interests and preferences compared to another. Sternberg (1997) defined thinking style as the way a person thinks. (Thinking means moving from the known to the unknown. The factor of thinking style cannot be ignored, because by learning about people's thinking style, one can recognize their interests and attitudes

in different fields and direct them in a way that maximizes success in life. Familiarity with thinking style can help individuals identify their strengths and weaknesses and understand how they can develop their strategies in decision-making and problem-solving (Shokri and Valiallah, 2006). In many cases, individuals use thinking styles unconsciously, but if they are consciously informed about thinking styles and their differences and are trained, they can use them much better and more effectively than before (Frost and colleagues, 2013).

There has been extensive research in various fields on thinking styles. For example, Zhang (2006) showed that teaching thinking styles to Hong Kong students increased their academic self-efficacy.

One of the psychological factors related to individuals' thinking style and self-efficacy is perfectionism, which is a multidimensional personality trait that is expressed through striving for perfection, setting high standards for performance, and overestimating one's own behavior (Madigan, Stuber, & Passfield, 2016). A perfectionist creates a set of rigid, unrealistic, and high standards. Such a person engages in all-or-nothing thinking when evaluating their performance and considers achieving these standards to be the condition for success. Perfectionism is expected to affect various aspects of mental health, thinking style, and self-efficacy (Shokri & Valiallah, 2006). From Freud's perspective, the main motivation in the lives of these people is not to achieve happiness, but to find perfection and superiority. They must achieve perfection in everything they do and do it in the best way, otherwise they will not be satisfied. Not achieving perfection makes them suffer from anxiety, depression, and intense feelings of guilt (Herney, Neurosis, & Gross, 1990).

In today's world, students, especially girls, face numerous challenges that can affect their mental health and academic performance. Perfectionism can act as a positive or negative factor and, if not managed properly, can lead to anxiety and reduced self-efficacy (Flett & Hewitt, 2020). Also, a positive thinking style and self-awareness help students respond to challenges more effectively and use positive self-talk to boost their self-confidence and self-efficacy (Schank & Zimmerman, 2021). Therefore, examining these relationships can help to better understand the factors affecting self-efficacy in female students and provide strategies to improve their mental health and academic performance. The issue of self-awareness and positive self-talk as key factors in increasing self-efficacy in female students is of particular importance. Self-awareness allows students to identify their strengths and weaknesses and, as a result, set goals to improve their performance (Kumar & Singh, 2023). Also, positive self-talk acts as an effective tool in boosting self-

confidence and reducing anxiety and can help students cope better with academic challenges (Smith & Jones, 2023). These two factors can significantly affect self-efficacy and help female students to perform more successfully in academic and social environments. Therefore, examining and strengthening these factors can help improve their mental health and academic performance.

In the past, perfectionism was thought to be a one-dimensional concept (Burns, 1980), but today, despite the lack of consensus on its various elements, it is believed to have a multidimensional nature and can manifest itself in two main dimensions: normal (positive, adaptive) and abnormal (negative, maladaptive) (Cesarelli et al., 2008). These people are impatient and extremely self-critical (Stuber et al., 2015). Research has shown that adolescents who are in the normal perfectionist category generally show higher levels of mental health and self-efficacy than adolescents who are in the abnormal perfectionist category (Flett et al., 2013).

Also, research by Arabian et al. (2001), Frost et al. (2013), and Zhang (2006) showed that teaching thinking styles to individuals increased their academic self-efficacy.

Considering what has been mentioned, it seems necessary to investigate the relationship between thinking styles and perfectionism with self-efficacy. This study was conducted with the aim of determining the relationship between thinking styles and perfectionism with self-efficacy in the student community.

## Methods

The present research design is a descriptive correlational study and is an applied study in terms of purpose. The statistical population of this study was all students of Azad University in Amol in 2024. Considering that at least 30 are required for each variable for correlational research of regression type (Delavar, 2012), a research sample of 90 people was selected through non-random and available sampling method and participated in the study. In order to collect research data, 3 questionnaires were used: Hill et al.'s perfectionism questionnaire (2004), Sherer et al.'s general self-efficacy questionnaire (1982), and Sternberg-Wagner's thinking style questionnaire (1991). The questionnaires were provided to the students online. In order to analyze the data, statistical indicators and methods including mean, standard deviation, and correlation coefficients were used.

## Tools

Hill et al. Perfectionism Questionnaire (2004):

This scale is a 65-item test developed by Hill et al. in 2004. This questionnaire was validated and validated

on a 4-point Likert scale with options of strongly disagree (1), disagree (2), agree (3), and strongly agree (4). If the calculated score is between 58 and 116, the individual has low perfectionism, and if the calculated score is between 116 and 174, the individual has medium perfectionism, and if the calculated score is 174 or higher, the individual has high perfectionism. Hill et al. (2004) reported that the internal consistency of the Hill et al. Perfectionism Questionnaire is high, with a range of 0.83 to 0.91 for all subscales (Lowell and Limke, 2009). In the study by Jamshidi et al. (2009), the overall reliability coefficient of Hill et al.'s perfectionism questionnaire using Cronbach's alpha method was 0.89.

General Self-Efficacy Questionnaire of Scherer et al. (1982): This scale was developed by Scherer, Maddox, Mercandant, Prentic-Don, Jacobs, and Rogers (1982). The original version of the test consisted of 36 questions, and its creators, based on the analyses conducted, kept questions that had each of the social and general factors. Accordingly, 13 questions that did not have this feature were eliminated and the test was reduced to 23 questions. Of these 23 questions, 17 questions measured general self-efficacy with a mean of 57.99 and a standard deviation of 12.08. This scale is based on Likert, which measures the self-efficacy of the subjects in 5-point Likert scales from 1 to 5. The reliability coefficient obtained through Cronbach's alpha method for the general self-efficacy subscale and the social self-efficacy subscale was 0.86 and 0.71 for each, respectively (Scherer, Maddox, Mercandant, Prentice-Don, Jacobs-Rogers, 1982).

Sternberg Thinking Style Scale: Sternberg (1991) has developed this scale to evaluate the thinking style of individuals, which includes nine domains: legislative, judgmental, executive, clinger, detailer, conservative, liberal, introverted, and extroverted, each of which has four items as subscales, totaling 36 items. This scale is organized in the form of a seven-option Likert scale: "not good at all," "not very good," "a little good," "somewhat good," "good," "very good," and "extremely good," and the order of scores ranges from 7 to 1, with a score of 1 meaning not good at all and a score of 7 meaning extremely good (Sternberg, 1991). The internal validity coefficient of the thinking style scale has been reported to be between 0.57 and 0.88.

## Findings

The findings showed that the average age of the research sample was 24.8 years. Also, 62.45 percent of the participants were female and 37.55 percent

were male, of which 42.38 percent were married and 57.62 percent were single.

Table 1. Descriptive indicators related to research variables

Variables	Average	SD
Liberal	19.49	4.83
Conservative	15.54	6.13
Detailed	17.63	4.53
Holistic	18.64	5.32
Extroverted	20.15	5.18
Introverted	17.64	6.71
Judgmental	19.85	4.18
Legislative	20.15	5.23
Executive	19.25	5.19
Positive Perfectionism	28.64	6.61
Negative Perfectionism	53.68	9.12
Self-efficacy	29.41	6.54

The findings in Table (1) indicate that the lowest and highest mean values were related to conservative and legislative thinking styles, respectively, which means that most students had legislative thinking and less conservative tendencies in terms of performance. The results also indicate that positive perfectionism in students is higher than negative perfectionism.

Table 2. Findings from Pearson correlation between thinking styles and self-efficacy

Variables	Self-efficacy
Liberal	0.27
Conservative	0.18
Detailed	0.24
Holistic	0.07
Extroverted	0.22
Introverted	0.06
Judgmental	0.29
Legislative	0.15
Executive	0.21

Table (2) shows the findings of Pearson correlation between thinking styles and self-efficacy. Based on the findings, it is concluded that there is a positive and significant relationship between self-efficacy and all thinking styles except introverted and critical thinking. The correlation coefficient between self-efficacy and executive, legislative, judgmental, extroverted, detailing, conservative and liberal thinking styles is [ $r=0.21$ ,  $r=0.15$ ,  $r=0.29$ ,  $r=0.22$ ,  $r=0.24$ ,  $r=0.18$ ,  $r=0.27$ ,  $p=0.01$ ]. It can be concluded that students who had executive, legislative, judgmental, extroverted, detailing, conservative and liberal thinking styles in terms of orientation or performance also had higher self-efficacy.

Table 3. Findings from Pearson's correlation between perfectionism and self-efficacy

Variables	Positive Perfectionism	Negative Perfectionism
Self-efficacy	0.349	-0.237

Table(3) shows the findings of Pearson correlation between perfectionism and self-efficacy. Based on the findings, it is concluded that there is a significant positive relationship between the positive perfectionism variable and self-efficacy [ $r=0.349$ ,  $p<0.01$ ]. In other words, the higher the positive perfectionism score in an individual, the higher the self-efficacy will be. There is also a significant negative between the negative perfectionism variable and self-efficacy [ $r=0.237$ ,  $p<0.01$ ]. In other words, the stronger the negative perfectionism in an individual, the lower the self-efficacy.

## Discussion and Conclusion

This article examines the relationship between perfectionism, thinking style, self-awareness, and positive self-talk with self-efficacy in female students. The results show that perfectionism, as a personality trait, can have dual effects on self-efficacy. On the one hand, perfectionism can act as a motivator for greater effort and achievement of goals, but on the other hand, if it is extreme and unrealistic, it can lead to feelings of failure and reduced self-efficacy. According to the findings of this study, there is a significant positive relationship between self-efficacy and all thinking styles in students except introverted and critical thinking. The results of this research hypothesis are consistent with the findings of Sternberg and Grigornikov (1998), who believe that judicial and legal thinking styles have a positive correlation with students' self-efficacy. Also, it is consistent with the research results of Arabian et al. (2001), Razavi and Shiri (2005), Khair and Estavar (2006), Zank (2001), Zank (2004), Sternberg and Invergo (2006). Therefore, in explaining this research hypothesis, it can be said that according to Sternberg's theory that there is no good or bad thinking style and that thinking styles are only preferred ways of individuals in using abilities, therefore, students perform better in environments that are consistent with their thinking styles than in environments that are not consistent with their thinking style.

Also, students in environments consistent with their thinking style have higher general self-efficacy.

Also, based on the findings of this study, there is a significant positive relationship between positive perfectionism and students' self-efficacy, and there is a significant negative relationship between self-efficacy and the negative dimension of perfectionism. This result is consistent with the results of studies by Hormozinejad et al. (2008), Davari et al. (2013), Dodangeh (2012), and Kakavand et al. (2013).

In explaining this relationship, it can be said that according to Bandura (1997), self-efficacy is not a fixed ability, but rather a generative and productive concept in which cognitive, social, emotional, and behavioral skills are effectively coordinated and

organized to achieve the goal, and many factors can affect it. Students with positive perfectionism have realistic expectations and expectations of their abilities and performance, and when they have freedom to do things, they try to act in the best possible way. Positive perfectionism also creates rational and realistic expectations in the individual according to his/her capabilities and limitations, and increases self-efficacy by strengthening himself/herself and increasing self-esteem. Increasing self-efficacy leads to a decrease in depression and an increase in optimism. Research results showed that positive perfectionists have positive thinking and actively solve their problems through behavioral and emotional methods, and have low levels of bipolar, superstitious, and mysterious negative thinking and high levels of optimism.

On the other hand, self-awareness allows students to identify their strengths and weaknesses and set more realistic goals based on them. This recognition can help them use the pressures of perfectionism to their advantage and, as a result, strengthen their sense of self-efficacy. Positive self-talk also acts as an effective tool in managing negative and critical thoughts. This type of inner speech can help students deal with the challenges and expectations of perfectionism in a positive and constructive way. As a result, the combination of perfectionism, thinking style, self-awareness, and positive self-talk can lead to the formation of a virtuous cycle in which students move towards their goals with increased self-efficacy and use the pressures of perfectionism as a stimulus for growth and progress. The most important limitation of the present study is that it is a correlational study. Therefore, its results cannot be considered as a causal relationship. Another limitation of the present study is the use of self-report instruments, because people may not respond honestly to the items. It is suggested that the present study be conducted in another research population with regard to gender roles, and the predictive role of other environmental, family, and individual variables should also be examined. Considering that thinking styles and dimensions of perfectionism are learnable and transferable, the educational environment can play an effective role in shaping them. Therefore, it is recommended that university administrators and educational managers familiarize students with different thinking styles and perfectionism through designing and implementing educational courses.

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