Gratitude and Adolescent Academic Performance: The Mediating Role of Different Psychological Develop Features

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Abstract. With the increasing force competition of society and students' academic stress, further developing students' academic achievement is a significant suggestion that has gotten expanding consideration. This paper describes how several emotions and skills closely related to gratitude, such as resilience, well-being, and prosocial behaviors, can be influenced by gratitude, which in turn can contribute to the enhancement of all aspects of learning in elementary and middle school students. Students with gratitude possess better giving and problem-solving skills, and a grateful mindset increases personal resources and stable relationships. Students with a grateful mindset have a better performance in terms of academic focus, showing more avenues and dedication to problem-solving. This has a positive effect on academic behavior and the ability to self-control, thus affecting academic performance. These have positive effects on students' academic performance, and this paper explores how the positive effects of gratitude academic engagement and on prosocial behaviors further affect academic performance.

Keywords: Gratitude, academic performance, adolescents, well-being, prosocial behavior, learning engagement.

1. Introduction

As social competition intensifies and students' academic pressure increases, improving students' academic performance effectively is an important proposition that has received increasing attention. In the context of the urgency of improving academic performance, it is of great theoretical and practical significance to explore the role of gratitude in promoting the positive development of adolescents as well as the improvement of adolescents' academic performance. Gratitude, as an important virtue, and the traditional Chinese culture of gratitude have an important impact on student learning, and exploring gratitude can help improve educational methods and promote virtue education [1]. Many scholars have studied gratitude in their respective studies, which has also led it to be viewed as a multifunctional, correlative concept that exists with many other qualities and behaviors. In McCullogh et al.'s study, gratitude is considered a psychological experience based on morality and interpersonal relationships, as well as a response to favors from other moral subjects [2]; in Watkins' "Gratitude and the Good Life: Toward a Psychology of Appreciation," gratitude is referred to as an adaptive emotion [3]; while scholars such as Ma et al. mentioned that gratitude involves three parameterizations of affective traits, state of mind, and emotions in his academic paper in 2022 [4]. Even though psychological academics do not fully agree on the definition of gratitude, a consensus on gratitude is that its expression as a positive emotion has been categorized into state gratitude and trait gratitude, which are the psychological tendencies across temporal contexts and the psychological experience of the present moment, respectively. The purpose of this paper is to explore and analyze how gratitude positively affects academic performance through its positive effects on academic engagement, pro-social behavior, and well-being.

2. Method

This paper used the literature review method to explore the relationship between gratitude and academic achievement. The literature search was carried out using the academic database of CNKI, Google Scholar, SSRN, Research Gate, and Wanfang Data. Keywords were entered as follows: gratitude, academic performance, learning engagement, prosocial behavior, and adolescents. Moreover, select the literature containing "gratitude" as the independent variable and do the literature analysis.

3. The Effect of Gratitude on Academic Performance

The concept of "gratitude" has been discussed by philosophers since ancient times. In the 1950s, with the further development of sociology and psychology, people started to realize that gratitude has more potential benefits than we previously thought. Thus, more research and discussion were on the process.

Some early research suggests that gratitude is an intention of individuals to respond to others' favor. At the same time, life science aspect research argued that gratitude might be an adaption during organism evolution [2]. In addition, gratitude was clarified as a mechanism to promote reciprocal altruism, and the minority of neuroscientists has proved that individuals' extent of perceiving gratitude is determined by particular genes in the human body [5, 6]. Although various factors influence gratitude, most scholars agree that cognitive ability is an essential cause of gratitude. That is, the favor received by an individual is not the key factor promoting gratitude formation, but one's cognition, acceptance, and recognition of other's favors is the critical factor [3]. On the other hand, academic performance is believed to be an explicit expression of learning quality and cognitive function, and it is closely related to one's future career planning. Specifically, it is the whole ability to handle different subjects. Overall, it is the all-rounded evaluation of grade level and learning enthusiasm [7, 8].

Learning engagement mediates between gratitude and academic performance, and gratitude further affects learning behavior by influencing emotion and cognition, ultimately affecting academic performance. Prosocial behavior also plays a mediating role between gratitude and academic performance. That is, gratitude promotes the implementation of prosocial behavior. Prosocial actors with a more positive mindset and motivation, higher levels of social support, and better interpersonal relationships promote adolescent academic performance. In addition, well-being plays a mediating role between gratitude and academic performance. It increases the level of gratitude. Moreover, predicts and promotes the level of happiness. The rise in well-being has led to the development of academic performance in adolescents in different aspects, such as building good relationships and prevention of mental disorders.

4. Mediating Mechanism of Gratitude on Academic Performance

4.1. Mediating Role of Well-Being

Both Ding Fengqin and Diener have mentioned that there is a significant positive correlation between subjective well-being and psychological well-being and gratitude. Subjective well-being is an individual's judgment of the overall quality of life, a well-being indicator influenced by external factors, while psychological well-being is an individual's judgment of the quality of one's own emotions [9, 10]. Specifically, there is a double-helix causal mechanism between gratitude and happiness. Ye et al. found that gratitude and happiness can predict each other through a cross-lag model. A possible explanation is that gratitude can make individuals pay more attention and emphasize good things happening and thus improve happiness levels in a short period of time. On the other hand, gratitude, as a positive emotion, can promote individuals' adaptability and make various return behaviors for others' favors. Finally, more solid and long-term social resources will be

established, and at the same time, these established social resources can bring social support and improve individual happiness [11].

In his paper, Yu Han concluded that subjective well-being plays a mediating role in interpersonal relationships and learning engagement and that subjective well-being is significantly positively correlated with learning engagement and academic performance [12]. In addition, the research of La Creaca and Harrison also shows that for adolescents, the company of friends and good interpersonal relationships can greatly improve emotional regulation ability, thereby preventing social anxiety [13]. The profound impact of relationships on well-being is also explained in the study of Casey et al. [14]. The stability of emotional regulation and mental health have been shown to be two important factors that can deeply affect the academic performance of adolescents. Psychological problems in young children and adolescents increase the odds of poor academic performance [15]. Therefore, an individual's well-being largely influences the academic performance of adolescents, and high happiness promotes the development of academic performance and vice versa.

4.2. Mediating Role of Prosocial Behavior

Prosocial behavior refers to a category of behavior that conforms to the wishes of society and has no obvious benefit to the actor himself, while the actor consciously and voluntarily brings benefits to the recipients of the behavior. Prosocial behavior is an important basis for the formation and maintenance of good relations between people and is a positive social behavior.

In the Expanded Construct Theory of Positive Emotions proposed by Fredrickson, each positive emotion carries a unique evolutionary purpose and adaptive function, and positive emotions are able to broaden an individual’s temporary cognitive and thinking activities and build lasting psychological resources [16]. This study suggests that gratitude as a positive emotion promotes cognitive and thinking broadening, helps build psychological resources, and motivates individuals to engage in prosocial behaviors.

In the theory of moral emotions proposed by McCullough et al, gratitude is an emotional response to the moral behavior of others and plays an extremely important role in people's moral life [2]. Gratitude has three specific moral functions: the moral barometer function, the moral motivation function, and the moral reinforcer function [17]. Of these, the moral motivation function has received extra attention as a driver of gratitude for individual prosocial behavior. Moral motivation consists of moral awareness and moral emotions, which become moral motivation when they become internal motivators that drive people to produce and complete moral behaviors, and the reinforcement of gratitude tendencies drives more prosocial behaviors. Based on the principle of reciprocity, gratitude, as an emotional response to the moral behavior of others, also promotes moral behavior, leading to more prosocial behavior on the part of both givers and beneficiaries.

Zhang and Yu proposed a model of internal and external factors for prosocial actors to be more creative from the perspective of interpretive epistemology [18]. From the viewpoint of internal factors, prosocial actors have higher prosocial motivation, which is conducive to the increase of internal motivation, autonomy motivation, subjective well-being, and divergent thinking, and at the same time, it can effectively reduce the overall impact of negative factors such as stress; from the viewpoint of external factors, the implementation of prosocial behaviors is conducive to the individual to establish and maintain good interpersonal relationships, obtain more external support (knowledge sharing, cooperation, trust), which plays an important role in creativity [18]. Prosocial behavior is conducive to the strengthening of individual learning motivation and autonomy, reducing the negative impact of stress, frustration, and other factors, and improving the individual's ability to resist frustration. At the same time, prosocial behavior is able to build more stable and good interpersonal relationships and obtain more external support, which creates a better learning environment and enables individuals to face their studies in a more positive frame of mind, which is conducive to the enhancement of their academic performance.

4.3. Mediating Role of Learning Engagement

Students with gratitude are more focused on academic engagement. Gratitude as a positive emotion enables adolescents to quickly seek external help during academic stress and negative emotions [19]. Access to resources and solutions to build resilience in the environment makes them more focused on their academic engagement, and gratitude also helps students build confidence to persist in their studies for better performance.

Fredrickson et al's article generalized structuration theory suggests that gratitude is a positive emotional experience [16]. This can lead to proactively seeking help from others, fostering self-confidence and a sense of feedback, promoting enthusiasm and motivation for learning, generating autonomy, and better self-control. This is reflected in the behavior directly in the form of students will actively participate in learning, which has a positive impact on academic performance.

5. Conclusion

The strengthening of gratitude tendency promotes the implementation of more prosocial behaviors. Gratitude can promote the broadening of individual cognition and thinking and help to build up psychological resources, thus prompting individuals to engage in prosocial behaviors. The implementation of prosocial behaviors can help individuals increase motivation, reduce negative influences such as stress, establish more stable relationships, and obtain more external support, which in turn promotes higher academic performance. Students with a grateful mindset have a better performance in terms of academic focus, showing more avenues and dedication to problem-solving. This has a positive effect on academic behavior and the ability to self-control, thus affecting academic performance.

Author contribution

All the authors contributed equally, and their names were listed in alphabetical order.

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