The Impact of Post-Setback Attribution Styles on Academic Procrastination among Junior High School Students

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Abstract. This study focuses on Chinese junior high school students. It uses literature review and theory to understand how students' attribution style affects their academic procrastination after they face setbacks in learning. The research uses ideas from attribution theory and self-efficacy theory. It looks at three aspects of attribution: locus of causality, stability, and controllability, and this study explains how these attribution styles affect procrastination. Also, because of China's unique culture and education system, the study examines how Chinese students show specific patterns in their attribution style and procrastination behavior. In addition, the study suggests ways to help reduce procrastination. These include feedback from teachers, support from families, and mental health education in schools. The aim is to provide practical ideas for encouraging positive learning behavior. The research results contribute to a deeper understanding of the psychological mechanisms underlying procrastination and provide targeted strategies for educational intervention and procrastination prevention in junior high school students in the Chinese context.

Keywords: Academic Procrastination, Junior High School Students, attribution theory, self-efficacy theory.

1. Introduction

With the deepening development of educational psychology, academic procrastination has garnered increasing attention as a significant factor affecting students' learning efficiency and mental health. Within the context of contemporary Chinese education, junior high school students face intensifying academic pressures and psychological challenges. Academic procrastination is not only prevalent among this group but also poses a significant impediment to their academic performance and long-term development. The attribution style students adopt when encountering setbacks during their studies, that is, their consistent tendency to explain the causes of failure, is considered one of the key psychological mechanisms influencing the development of procrastination. Junior high school students are in a critical stage of adolescent psychological development, characterized by heightened self-awareness, significant emotional fluctuations, and immature cognitive abilities. These developmental traits may make them more prone to adopting negative attribution styles when confronting negative events, thereby inducing or exacerbating procrastination behaviors. Therefore, investigating how junior high school students' attribution styles following academic setbacks influence their procrastination behaviors holds significant theoretical value and practical relevance.

In the field of educational psychology research, academic procrastination and its relationship with attribution styles have gradually emerged as a hot topic. Scholars both domestically and internationally have conducted empirical explorations into the causes, measurement methods, and psychological mechanisms of procrastination behavior from various perspectives, developing tools such as the Procrastination Assessment Scale-Students (PASS). However, existing research has primarily focused on university students within Western educational contexts, with limited attention given to Chinese middle school students who are in a critical stage of psychological and behavioral development; therefore, localized studies are urgently needed. Furthermore, current research has insufficiently explored how the controllability dimension of attribution influences academic procrastination.

This study aims to fill these research gaps, focusing on the group of junior high school students in China, and exploring the influence mechanism of their attribution styles after academic setbacks on academic procrastination behavior. Through literature review and theoretical analysis, this study will systematically examine the intrinsic relationship between attribution styles and academic procrastination. It will attempt to construct a theoretical framework applicable to the Chinese cultural and educational context based on Weiner's attribution theory, Bandura's self-efficacy theory, self-handicapping theory, and motivation theory. It will systematically analyze the influence mechanism between the three dimensions of attribution style and academic procrastination, with particular attention to how the unique cognitive, emotional, and social developmental characteristics of Chinese junior high school students may influence this mechanism. The research results not only help deepen the understanding of the psychological mechanism of procrastination behavior among junior high school students but also provide targeted procrastination intervention strategies for educators, thereby promoting the formation of students' positive learning behaviors and the development of their mental health.

2. Literature review

Academic procrastination is a negative behavior. It means that a person often puts off starting their schoolwork on purpose. They often reluctantly complete assignments only at the last minute [1]. This behavior can lower students' grades. It also leads to negative emotions such as regret, stress, and anxiety. These emotions can harm both their mental health and their attitude toward learning [2]. Many psychologists around the world have studied how to measure this behavior. For example, Solomon and Rothblum created a tool called PASS. It is one of the most common ways to check how much someone procrastinates on academics [3]. Another researcher, Lay, made the General Procrastination Scale. This tool aims to measure students' procrastination behavior and related feelings [4].

Academic procrastination often develops from how a person sees and understands the good and bad things that happen to them. Attribution theory gives us an important way to understand how this works. Within the attribution theory, Weiner suggested that people's explanations for causes can be grouped into three main dimensions: locus of causality, stability, and controllability [5-7]. Locus of causality refers to factors internal to the individual (such as ability, effort) or external to the individual (such as environment, luck) [8]. Stability is used to distinguish whether the cause of an event is temporary or permanent [8]. Controllability refers to whether individuals believe the perceived cause can be managed or prevented through factors under their personal control [8]. Fishman and Husman further proposed the perception of control in the attribution process, emphasizing the individual's belief in autonomous regulation of attributions [9]. And the relatively stable attribution tendency formed by an individual during long-term attribution processes is termed attribution style.

Some empirical studies based on attribution theory have shown that students' attribution styles do have an impact on their procrastination behaviors. Gargari et al.'s research indicated that undergraduate students who attributed their academic failures to internal and stable factors were more likely to procrastinate [10]. In the same year, Hoppe conducted an observational study and obtained similar results, namely that undergraduate students with a higher degree of academic procrastination were more inclined to attribute negative academic outcomes to internal and stable factors [11]. Lee and Hall's research also indicates that attributing failure to stable ability deficits indirectly leads to procrastination by inducing feelings of helplessness. Although the aforementioned studies differ in sample composition and methodology, they collectively support the existence of a stable psychological mechanism linking attribution styles to procrastination behavior [8].

However, existing research exhibits certain gaps: First, the study samples have primarily focused on college students, leaving the attribution-procrastination mechanism among junior high school

students largely unexplored, however, adolescence is precisely the critical stage for the formation of attribution styles, making research targeting this group particularly significant for educational interventions; Second, existing research has focused exclusively on Western educational contexts, however, the academic perceptions, family expectations, and evaluation systems within China's cultural and social structures exhibit systemic differences from those in the West, so localized research is urgently needed. Finally, existing research has paid insufficient attention to how the controllability dimension of attribution influences academic procrastination; the specific relationships between those three dimensions and procrastination should be systematically explored. Therefore, this study will systematically analyze the impact of the three dimensions of attribution style on academic procrastination among Chinese junior high school students, which aims to deepen our understanding of the psychological mechanisms underlying procrastination in this population and advance the development of intervention practices.

3. Theoretical foundations of attribution styles

3.1. The core framework of attribution theory

Weiner's attribution theory aims to systematically explain how individuals engage in causal reasoning about events and how such reasoning influences their emotions, motivation, and behavior [5-7]. The theory says that when people succeed or fail, they naturally look for causes. They usually explain these causes using three dimensions: locus of causality, stability, and controllability [6].

3.1.1 Locus of causality

The locus of causality dimension looks at where people think the cause of an event comes from: inside themselves (internal) or from the outside environment (external) [5]. Internal causes come from the person themselves, such as ability, effort, and emotions. External causes come from the outside environment, like task difficulty, luck, and others' behavior. For instance, if a student attributes his failure in an exam to "low ability", it is an internal attribution, while attributing it to "the exam is too difficult" is an external attribution.

3.1.2 Stability

The stability dimension is about a person seeing the cause of an event as permanent or temporary [7]. Stable attributions (e.g., ability, intelligence) are viewed as long-lasting and hard to change, whereas unstable attributions (e.g., effort, mood, luck) are viewed as temporary [7]. For instance, a student who fails an exam might give different reasons: if he says, "I have never been good at math," then this is a stable attribution; If he says, "I was in a bad mood on the exam day," then this is an unstable attribution.

3.1.3 Controllability

Controllability describes whether a person believes he can change the cause and result through his own choices or actions [6]. “Effort level” is usually viewed as a controllable factor, whereas “innate ability” is often viewed as an uncontrollable factor. The controllability dimension is closely related to the feeling of responsibility and moral emotions [9]. If students blame failure on a controllable factor, they are more likely to feel guilty and try to improve themselves. On the other hand, if they blame an uncontrollable factor, like low intelligence, they are more likely to feel helpless and give up [8].

Weiner pointed out that these three dimensions work together. They form a complex psychological process that explains how people understand events. This theoretical framework provides a solid foundation for understanding academic behaviors such as procrastination and has been widely applied in educational psychology research [10,11].

3.2. The formation and consolidation of attribution styles during adolescence

Attribution style is not innate to human beings. It is a way of thinking that develops over time [12]. Its development is jointly determined by factors such as a person's age, cognitive level, social environment, and cultural background.

The junior high school stage is a critical period for the formation and consolidation of attribution styles. During this stage, students' logical thinking and metacognitive abilities develop rapidly, which allows them to analyze the causes of events in deeper and more complex ways [13]. They begin to ask questions like: "Why did I succeed or fail?", "Will this factor influencing success or failure persist?", and "Can I change it?" The repetition of such a thinking habit gradually settles into a stable attribution tendency, and this tendency is called attribution style.

Adolescence is a stage when students become more self-aware. At this stage, it is difficult for them to control their emotions perfectly. Students grow very sensitive to how others see them, especially their teachers and classmates [14,15]. Persistent academic setbacks, varying teacher feedback styles (e.g., emphasizing effort versus emphasizing ability), and social comparisons among peers can continually reinforce or reshape their existing attribution style. For example, if a teacher often says a student is "not smart", this feedback can have a strong effect. A student who often fails and hears this may develop a negative way of thinking. They may start to believe failure is due to their own lack of ability, which they cannot change. This is an example of an internal, stable, and uncontrollable attribution style.

Cultural background also plays a significant role in shaping attribution styles. Unlike Westerners in an individualistic culture, Chinese people in a collectivist culture pay more attention to external opinions and family expectations. This leads Chinese students to be influenced by a complex combination of internal criteria and external social demands when making attributions.

An attribution style is generally stable over time, but it is not something that cannot be changed. With correct educational guidance, such as attribution training, students can learn to use controllable attributions after encountering setbacks [15]. This can help them change their negative way of thinking into a positive one. As a result, they can become more motivated to learn [15].

The formation of attribution styles is a gradual process that is shaped by the combined influence of individual cognitive development, social environment, and cultural factors. For junior high school students, adolescence is not only a period of rapid cognitive development but also a crucial time when attribution styles tend to stabilize.

4. Attribution style and academic procrastination in junior high school stage

4.1. Mediation in the relationship between attribution and procrastination

Attribution styles influence academic procrastination through complex cognitive and emotional mediating mechanisms. Junior high school students are in a unique stage of psychological development, characterized by rapidly developing cognitive abilities, immature emotional regulation ability, strong self-awareness, and sensitivity to others' evaluations. Because of these characteristics, the attribution style has a particularly significant impact on their behavior [14]. This section will systematically analyze the psychological pathways and mediating mechanisms by which different attribution dimensions influence academic procrastination.

4.1.1 The influence of internal-stable attribution on procrastination behavior

When students attribute academic failure to internal and stable factors, such as their own lack of ability, it first triggers negative self-evaluations. This negative perception significantly weakens students' self-efficacy, reduces expectations for future academic success, and generates a state of learned helplessness [16]. In this state of mind, students' learning motivation drops noticeably. They become less willing to start tasks or follow through on their plans. Over time, they may begin to use procrastination as a way to cope. They delay starting or finishing work on purpose to avoid the

unpleasant feelings that come from failure. This mechanism is particularly evident among junior high school students who have a strong sense of self-awareness.

4.1.2 The influence of external-unstable attribution on procrastination behavior

If students blame failure on external and unstable factors, like bad luck or a temporary distraction, it can make them feel less personally responsible. This reduction in self-blame can temporarily ease their feelings of anxiety or shame. For middle school students, this kind of attribution can work as a short-term buffer for their emotions. However, long-term reliance on such attributions leads students to habitually attribute academic outcomes to uncontrollable external factors, thereby diminishing their internal motivation and weakening their sense of control over academic results. As internal motivation diminishes, it becomes difficult for students to establish enduring learning goals and sustain active learning behaviors. They become more susceptible to external distractions, experiencing reduced attention and persistence, which gradually form a habit of academic procrastination [17]. For junior high school students, this attribution pattern may also hinder the development of responsibility and self-regulation skills.

4.1.3 The influence of internal-unstable attribution on procrastination behavior

If students attribute failure to internal and unstable factors, such as inadequate preparation before an exam or poor performance on the day, this can temporarily preserve their self-esteem. However, repeated use of such attributions will reinforce students' self-handicapping tendencies, that is, consciously or unconsciously setting up obstacles or excuses for themselves to prepare explanations for potential academic failure [18]. This defensive self-handicapping strategy will diminish students' motivation to study hard and form habitual procrastination, as they are worried that if they still fail after putting in all their efforts, it will pose a greater threat to their self-worth [19]. While this attribution style protects students' self-worth in the short term, it comes at the expense of long-term academic performance. Especially for junior high school students, due to their heightened self-awareness and sensitivity to external evaluations, they are more likely to develop self-handicapping procrastination habits as a result of this attribution style.

4.1.4 The influence of external-stable attribution on procrastination behavior

If students attribute failure to external and stable factors, such as overly difficult tasks or teacher bias, externalizing responsibility can temporarily alleviate their self-blame. However, in the long term, this attribution style leads students to believe academic outcomes are beyond their control and the failure factors are enduring. This perception will significantly diminish internal motivation, weakening students' inherent interest in learning. It will also undermine external motivation by causing students to doubt the possibility of earning external recognition and rewards through effort [17]. At the behavioral level, junior high school students exhibit avoidance behaviors such as lowering goals, reduced active participation, and procrastination to cope with situations they perceive as unchangeable.

4.1.5 The core regulatory role of the controllability dimension of attribution

Beyond the dimensions of locus of causality and stability, the controllability dimension of attribution independently exerts a crucial regulatory effect, serving as the core attribution dimension determining the likelihood of students ultimately generating procrastination behavior. Unlike dimensions that merely assess whether success or failure stems from internal or external, stable or unstable causes, the controllability dimension focuses on whether students believe they can control or alter the cause of failure [6]. Even if students develop attribution styles such as internal stability or external stability that may lead to procrastination, if they also believe that this factor can be improved through strategies, efforts, or resource adjustments (i.e., controllable attributions), they can still maintain a high level of self-efficacy and behavioral initiative, thereby reducing the likelihood of procrastination. Conversely, if one habitually makes uncontrolled attribution, it will intensify the sense of helplessness and increase the likelihood of procrastination behavior. Therefore, cultivating the tendency of controlled attribution in junior high school students is an

effective breakthrough point for breaking the negative attribution chain and conducting cognitive intervention to alleviate academic procrastination.

4.2. Special manifestations in the context of Chinese culture

Within China's unique educational context and cultural backdrop, Chinese junior high school students face more intense academic competition, greater family pressure, and a more collectivist educational and cultural environment compared to their Western peers. These factors collectively shape the distinctive attribution tendencies of Chinese junior high school students and profoundly influence the mechanisms underlying their academic procrastination.

Chinese junior high school students are more likely to develop an "internal-stable" attribution style [20,21]. This tendency is closely tied to China's current educational context: within an exam-oriented, highly competitive system, frequent rankings and public comparisons invisibly reinforce students' perceptions of "fixed ability." They are more likely to attribute failure to stable internal factors like intelligence or innate talent, believing personal effort cannot alter their circumstances. Additionally, "external-stable" is another prevalent attribution style among Chinese junior high students; the reason is related to Chinese families' intense focus on and emotional investment in their children's academic performance [22]. In many Chinese families, there is a strong focus on academic achievement. Because of this, success or failure in study is not just a personal matter. It is also seen as related to meeting family expectations. These high expectations can affect how students explain their setbacks. After a poor academic result, a student might first blame themselves. However, to reduce feelings of guilt and pressure, they may later blame external and stable factors. For example, they might decide the failure was due to low teaching quality or educational inequality.

The traditions of collectivist cultures further deepen the distinctive manifestations of attribution styles. Chinese culture emphasizes self-reflection, diligence, and conformity to collective expectations, leading students to repeatedly weigh whether they have "tried hard enough" and whether they have "let others down" [23]. The attribution styles of Chinese junior high school students and the resulting procrastination behaviors are not merely failures of self-regulation, but also psychological adaptations and behavioral responses to a high-pressure and high-expectation environment, incorporating multiple emotional and motivational components such as shame, avoidance, and self-protection.

Within China's sociocultural context, student procrastination exhibits a more complex motivational structure. Whether because of perceived "lack of capacity" that leads to abandoning effort, or delaying tasks to alleviate anxiety over "failing to meet expectations," its essence lies in adaptive behavioral strategies formed within specific educational and cultural environments. This implies that interventions targeting procrastination among Chinese students cannot be confined to individual psychological levels. Instead, they must be designed from multiple perspectives, including educational assessment, teacher feedback, family communication, and societal values, to create attribution retraining and psychological support systems that is in line with the cultural context of China. Therefore, part five of this paper will explore how educational practices and systemic support can guide students toward developing positive, controllable attribution patterns, thereby effectively reducing the occurrence of academic procrastination.

5. Recommendations for educational intervention and practice

Based on the previous analysis of the formation mechanism of attribution styles among Chinese junior high school students, the influence path of these styles on procrastination behaviors, as well as the particularities of the cultural background, this section will propose intervention suggestions from the perspective of educational practice, which aims to guide the formation of positive and controllable attribution styles, thereby effectively preventing and reducing academic procrastination behaviors.

5.1. Recommendations for teacher feedback and instructional guidance

As a key guide in students' academic journeys, teachers' instructional behaviors and feedback methods profoundly influence students' attribution styles [24]. Given that Chinese middle school students are more easy to developing negative attributional tendencies toward "internal, stable, and uncontrollable" factors, teachers should avoid using static, "ability-oriented" evaluations in daily instruction, such as "You lack of mathematical thinking", and instead adopt dynamic, "process-oriented" feedback, for example, stating "this problem was challenging, but we can improve by adjusting our approach" guides students to attribute setbacks to controllable factors like effort and strategy [21]. Teachers can also organically integrate "setback experiences" into classroom instruction by designing tiered challenge tasks. This allows students to personally experience the positive changes brought by controllable attributions through the "setback-adjustment-success" cycle, thereby enhancing their self-efficacy and internal motivation for learning. Furthermore, teachers can also design a series of more specific teaching activities, such as organizing students into groups to share their attribution styles, setting up self-reflection diaries, etc., in order to help students identify the types of negative attributions and gradually establish a cognitive model and attribution style that is more suitable for the current situation of Chinese education [24].

5.2. Recommendations for establishing family and social support systems

Family plays a crucial role in regulating emotional and moral pressures during the development of Chinese students' attribution styles. To alleviate academic avoidance and procrastination stemming from students' fear of "not meeting family expectations," parents should shift their focus from only emphasizing academic outcomes to valuing the learning process and psychological well-being. They must avoid attributing academic failures to the child's "inadequate ability" or "ineffective effort" [22]. Parents can participate in attribution guidance training through home-school collaboration platforms, learning how to help children objectively analyze the causes of setbacks, emphasize the belief that process matters more than results, and value small successes after each effort, thereby guiding children to establish controllable attributions when facing setbacks.

Concurrently, schools should establish collaborative support networks, regularly offering cognitive-behavioral group counseling centered on attribution retraining, specialized lectures, and emotional management courses to help students overcome procrastination tendencies across cognitive, emotional, and behavioral dimensions [25]. Educational administrative departments and relevant social organizations should also collaborate to advance diversified reforms in educational evaluation systems, building a more tolerant and supportive educational culture.

In summary, guiding Chinese middle school students to develop a positive attribution style and reduce academic procrastination is a systematic work requiring collaboration among teachers, schools, families, and society. Only by understanding the specific psychological pathways through which attribution styles influence academic procrastination, and supplementing it with the background of Chinese culture and education, and through targeted feedback design, cognitive training, and environmental support, can the behavioral chain of "negative attribution-academic procrastination" be effectively broken, helping students form a healthy and positive learning attitude.

6. Conclusion

This study, through literature review and theoretical analysis, systematically explored the psychological interrelationships between attribution styles and academic procrastination. Based on attribution theory, self-efficacy theory, self-handicapping theory, and motivation theory, a formation path and theoretical framework for "academic setbacks–various attribution styles–procrastination" among junior high school students in the Chinese educational context was

constructed. Research indicates that Chinese junior high school students are more likely to develop "internal-stable" or "external-stable" attribution tendencies after academic setbacks. They tend to attribute failure to uncontrollable factors, such as insufficient ability or overly difficult tasks, which subsequently leads to diminished self-efficacy, reduced motivation, and self-handicapping, ultimately resulting in academic procrastination.

This study holds significant value both theoretically and practically. Theoretically, it fills gaps in existing attribution-procrastination research by examining junior high school students within a Chinese cultural context and exploring the controllability dimension of attribution, thereby deepening our understanding of the mechanisms underlying procrastination. Practically, it provides clear directions for educational interventions: teachers should guide students to develop positive, controllable attribution patterns through process-oriented feedback and challenging task design; families need to reduce moral pressure stemming from excessive focus on academic outcomes; schools should establish multi-tiered mental health support systems and implement cognitive interventions such as attribution retraining.

Future research may be expanded in the following areas: First, conducting empirical studies based on Chinese junior high school students to examine the quantitative relationship between the three dimensions of attribution style and procrastination behavior. Second, integrating multidisciplinary approaches such as biological psychology and developmental psychology to explore the cognitive-neural mechanisms underlying attribution-procrastination. Third, developing culturally adaptive and operationally feasible attribution training programs and assessment tools to promote their practical application in education. Ultimately, through theoretical frameworks and multi-cooperation, helping students develop healthy attribution styles and learning behaviors, and achieving the harmonious development of study and mental health.

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