

Research on the Mediating Role of Academic Self Efficacy: A Case Study of the Influence of Parental Education on High School Students Academic Performance

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Abstract. Drawing on insights from educational psychology, this research delves into the intricate ways in which parental approaches to child-rearing influence the academic outcomes of high school students, with a particular focus on the mediating effect of academic self-efficacy. The study establishes a theoretical model positing that parenting styles directly shape a child's belief in their academic capabilities, which subsequently impacts their scholastic achievements. To test this framework, a quantitative methodology was employed, targeting high school students as the primary participants. Data was gathered through structured surveys, revealing that nurturing parenting behaviors—such as showing warmth, offering encouragement, and being actively involved—are strongly linked to higher levels of academic self-efficacy in students. In other words, when parents adopt a supportive stance, their children are more inclined to develop a robust sense of confidence in their ability to succeed academically. The findings highlight a distinct and favorable link between academic self-confidence and achievement, indicating that students who have faith in their abilities are more likely to thrive academically. In other words, a strong belief in one's academic potential often translates into better performance in schoolwork. This correlation reinforces the idea that self-assurance plays a pivotal role in educational success. This research not only uncovers the indirect role of parenting styles in shaping academic success but also highlights the pivotal influence of academic self-efficacy as a key intermediary. These insights carry significant theoretical and practical weight, offering valuable guidance on how family dynamics can shape educational outcomes and how parents can refine their approaches to foster their children's academic growth.

1 Introduction

The research underscores the pivotal role that parenting approaches play in shaping an individual's psychological growth and academic success. Parenting style, defined as the strategies and attitudes parents employ in raising their children, lies at the heart of the family dynamic. High school students, navigating the formative years of adolescence, face immense pressure to excel academically, as their performance not only influences their personal trajectories but also reflects the aspirations of their families and society at large. Furthermore, the study delves into the concept of academic self-efficacy, which pertains to an individual's belief in their ability to succeed in academic endeavors. This self-assurance can significantly impact students' motivation, their selection of learning techniques, and their resilience in overcoming academic hurdles. As such, academic self-efficacy may serve as a bridge between parenting styles and academic outcomes, suggesting that the way parents raise their children could shape their confidence in their academic abilities, ultimately influencing their performance. From an educational psychology perspective, this study aims to explore the complex relationships between parenting

approaches, self-efficacy in academics, and academic performance. Through empirical investigation, the study aims to shed light on how parental approaches influence students' academic self-belief and, in turn, their scholastic results. These findings will provide a theoretical basis for understanding how the family environment affects children's academic performance and practical guidance for improving children's academic performance.

2 Basic Concepts of the Relationship Between Parenting Styles and Academic Performance Oriented Towards Educational Psychology

2.1 Definition and Scope of Educational Psychology

Educational psychology is a discipline that focuses on the learning process, educational practice, and individual developmental psychological mechanisms. It comprehensively studies multiple aspects, such as cognition, emotion, and behavior, aiming to reveal the impact of education on individual development. By

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delving into educational psychology, we can unlock a richer comprehension of learners' mental and emotional traits, refine instructional methods, and foster well-rounded personal growth. This field offers invaluable insights that empower educators to tailor their approaches, ensuring students thrive both academically and personally.[1]

2.2 Classification of Parenting Styles, Academic Performance Information, and Their Characteristics

2.2.1 Source Perspective of Parenting Styles

Parenting styles are usually divided into authoritative, authoritarian, indulgent, and neglectful types. These different parenting styles have significantly different impacts on an individual's psychological development. Authoritative parenting tends to foster a sense of independence and self-assurance in kids, whereas authoritarian approaches can leave children grappling with feelings of insecurity and worry.[2]

2.2.2 From the Perspective of Factors Affecting Academic Performance

Academic performance is influenced by various factors, including family environment, school education quality, individual abilities, and learning motivation. These factors interact with each other and collectively affect students' academic performance.[3]

2.3 Academic Self-efficacy and Its Unique Features in Educational Psychology

Academic self-efficacy reflects an individual's belief in their ability to manage and excel in scholastic tasks. This idea holds a pivotal role in the realm of educational psychology, as it profoundly shapes a student's drive, approach to learning, and overall scholastic outcomes. Those who possess a strong sense of academic self-efficacy tend to embrace effective learning techniques, remain resilient when challenges arise, and ultimately excel in their studies. Consequently, delving into the dynamics of academic self-efficacy is crucial for refining teaching methods and elevating student achievement.[4]

3 Research on the Relationship Between Parenting Styles and Academic Performance and Construction of Technical Processes

3.1 Construction of Knowledge Framework on the Relationship Between Parenting Style and Academic Performance

This research began by establishing a conceptual framework to examine the interplay between parenting styles, academic self-efficacy, and academic

performance. Drawing on a thorough review of existing literature and a deep dive into educational psychology theories, the study positions parenting style as the independent variable, academic self-efficacy as the mediating factor, and academic performance as the dependent variable. By synthesizing prior studies, the research highlights how various parenting approaches influence personal development and underscores the pivotal role of academic self-efficacy in shaping learning outcomes. The framework serves as a foundation to explore the dynamic relationships among these three critical elements. In the theoretical analysis section, based on existing educational psychology theories, a theoretical model was constructed to explore the relationship between parenting styles, academic self-efficacy, and academic performance, providing a theoretical foundation for subsequent empirical research. By developing this conceptual framework, the study seeks to shed light on the intricate relationship between parenting approaches and academic self-efficacy, ultimately exploring how these factors influence scholastic achievement. This investigation uncovers the underlying mechanisms through which family dynamics shape educational outcomes, offering valuable insights for enhancing home learning environments and boosting students' academic success. The knowledge framework construction mode of the relationship between parenting style and academic performance is shown in Figure 1.

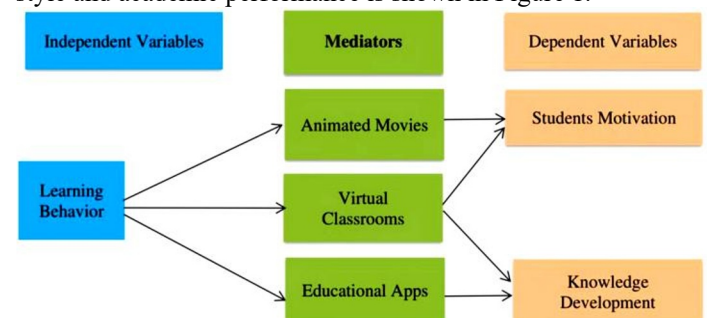


Fig. 1. Knowledge framework construction model for the relationship between parenting style and academic performance

According to Figure 1, the relationship between learning behavior and various factors is shown. Specifically, as an independent variable, learning behavior has an impact on three mediating variables. This study delves into the intricate connections between how parents raise their children, students' belief in their academic abilities, and their overall scholastic achievements. Within this structure, the approach parents take in raising their kids serves as the key influencing factor, while students' confidence in their academic skills acts as the intermediary, and their educational outcomes are the primary focus. By reviewing existing research and conducting a thorough theoretical examination, findings on parenting approaches, academic confidence, and student performance were synthesized, leading to the development of a conceptual framework grounded in educational psychology principles. By integrating existing theories and research findings to establish relationships between variables and constructing this

knowledge framework, the aim is to gain a deeper understanding of how parenting styles affect academic self-efficacy and, subsequently academic performance. Revealing how one variable affects another variable through mediating variables. Overall, the research framework and the models in the charts adopt a similar logical structure, exploring the relationships between variables through mediating variables. This structure helps to reveal the underlying mechanisms behind complex phenomena and provides theoretical guidance for optimizing family education environments and improving students' academic performance.[5]

3.2 Academic self-efficacy information extraction mode

This study used questionnaire surveys and psychological tests to extract information on high school students' academic self-efficacy. Questionnaire surveys typically include a series of questions about students' beliefs about their learning abilities, while psychological tests may involve more specialized assessment tools such as the Academic Self-Efficacy Scale. These methods can effectively quantify students' academic self-efficacy and provide a foundation for subsequent data analysis.[6]

3.3 Information Aggregation Methods for Academic Self-efficacy

3.3.1 Matching Strategy Between Parenting Style and Academic Self-efficacy

This study leverages sophisticated statistical methods, including correlation analysis and ANOVA, to explore the relationship between different parenting strategies and students' belief in their academic capabilities. By examining this dynamic, the research aims to shed light on how parental behaviors shape students' confidence in their ability to succeed academically. The findings aim to offer concrete evidence for how parenting indirectly shapes academic outcomes, shedding light on this critical aspect of educational development. By analyzing the correlation between different parenting styles and academic self-efficacy, this study can determine which parenting styles are associated with higher academic self-efficacy and provide guidance for optimizing the family education environment and improving students' academic performance.[7]

3.3.2 Physical Correlation Technology Between Academic Self-efficacy and Academic Performance

The research utilized regression analysis alongside supplementary methods to investigate the role of academic self-efficacy in shaping student performance. Through the development of a regression model, the team quantified how strongly academic self-efficacy forecasts educational results and validated its role as a mediator between parenting styles and academic success. This methodological approach sheds light on the

nuanced ways in which academic self-efficacy operates within the broader context of parental influence, offering concrete insights into how family dynamics shape a child's self-belief and, in turn, their educational success. The findings contribute valuable empirical support to understanding the interplay between home environments, self-efficacy, and academic performance.[8]

3.4 Methods for Obtaining Information on Academic Self-efficacy

The study used methods such as self-report questionnaires and psychological tests to obtain information on high school students' academic self-efficacy. The self-report questionnaire requires students to answer questions based on their actual feelings and beliefs, while psychological testing evaluates students' academic self-efficacy through standardized scales. By combining these methods, students' academic self-efficacy information can be obtained more comprehensively and accurately, providing reliable data support for subsequent data analysis and validation of research hypotheses.

4 Integration Practice of Parenting Style, Academic Self-efficacy, and Academic Performance: A Sample of High School Students

4.1 Collection of Information on the Parenting Styles of High School Students

This study collected information on the parenting styles of parents of high school students through the design and distribution of a questionnaire survey. The questionnaire covers various aspects of different parenting styles, such as parental authority, support, participation, etc. Through this approach, research can obtain detailed information about the parenting environment of high school students, providing a data foundation for subsequent analysis of the relationship between parenting styles, academic self-efficacy, and academic performance.

4.2 Extraction of Knowledge on Academic Self-efficacy Among High School Students

To obtain data on high school students' academic self-efficacy, the research employed techniques like psychological assessments and interviews. Psychological tests typically use standardized academic self-efficacy scales to quantitatively assess students' levels of academic self-efficacy. Interviews are a qualitative research method that involves in-depth communication with students to obtain detailed information about their beliefs and expectations regarding their academic abilities. By integrating these approaches, we gain a multifaceted understanding of high school students' academic self-efficacy, offering valuable insights into how it intertwines with parenting

styles and scholastic outcomes. This approach not only sheds light on the dynamics at play but also equips researchers with a robust foundation for further exploration.

4.3 Summary of Knowledge on Factors Influencing Academic Performance of High School Students

4.3.1 Design Logic for Parenting style and academic performance structure

This research began with a thorough examination of how various parenting approaches directly influence academic outcomes. Leveraging advanced statistical techniques, particularly regression analysis, the study sought to uncover the relationship between distinct parenting styles and scholastic achievement. Additionally, it delved into the ways these parenting methods, whether directly or indirectly, shape students' academic performance. This step is crucial for understanding the role of parenting styles in academic achievement formation.

4.3.2 Functional Component Arrangement of Academic Self-efficacy

Having established the connection between parenting approaches and academic performance, the research delved deeper into the potential role of academic self-efficacy as a mediating factor. By conducting a mediation analysis, the study sought to uncover whether—and to what extent—academic self-efficacy acts as a bridge linking parenting styles to academic achievement. Academic self-efficacy, defined as an individual's belief in their capacity to succeed in academic tasks, appears to serve as a critical intermediary in this dynamic. Through a thorough examination of this mediating mechanism, the research aims to offer a more nuanced understanding of how parenting styles shape academic performance. This insight could lay the groundwork for refining educational strategies and enhancing students' academic performance.

4.4 Building the Relationship Between Group Parenting Styles, Academic Self-efficacy, and Academic Performance Among High School Students

This research employed advanced statistical techniques to develop a comprehensive model exploring the interplay between parenting approaches, students' belief in their academic abilities, and their scholastic achievements. The investigation began by mapping out the fundamental connections among these variables using descriptive statistics and correlation assessments. This initial phase laid the groundwork for understanding how different parenting styles influence students' confidence in their learning capabilities and, ultimately, their educational outcomes. This step provides preliminary evidence for understanding the interaction

between the three. Building on this foundation, the research employed both regression and path analysis to delve into how parenting styles directly influence academic achievement, while also examining the extent to which academic self-efficacy serves as a mediating factor. The hypothesis that parenting style indirectly affects academic performance by influencing academic self-efficacy was studied and verified by establishing a structural equation model. The development of this framework not only enhances our grasp of how the family educational setting influences high school students' academic outcomes but also offers a solid empirical foundation for refining family education approaches and boosting students' academic achievements. Studies consistently reveal that authoritative parenting fosters a strong sense of academic self-efficacy in children, whereas neglectful parenting tends to undermine it. Moreover, there's a clear and meaningful link between academic self-efficacy and overall academic achievement. These insights underscore the critical role that parenting approaches play in cultivating children's confidence in their academic abilities, which ultimately influences their performance in school. Therefore, parents and educators should pay attention to and optimize parenting methods to promote students' academic development.

5 Conclusion

This study highlights the significant impact of parenting approaches on high schoolers' academic outcomes, mediated crucially by academic self-efficacy. Notably, an authoritative parenting approach—marked by a balance of warmth and structure—proves particularly effective in bolstering students' academic self-confidence, thereby fostering better scholastic performance. Conversely, a neglectful parenting style, defined by insufficient guidance and support, tends to erode students' belief in their academic abilities, ultimately hindering their educational progress. These insights highlight the critical responsibility of parents and educators in shaping students' academic trajectories. To cultivate a conducive learning environment, it is essential for caregivers to embrace nurturing and empowering strategies that encourage students to develop a robust sense of academic self-efficacy. Moreover, educators and institutions ought to explore integrating methods that boost students' confidence in their learning abilities, as this can significantly elevate both educational results and overall academic achievement. By fostering a sense of self-efficacy, schools can empower students to take ownership of their learning journey, ultimately driving better performance and success.

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