The Influence of Belief in a Just Word on Academic Performance of Junior High School Students during Home Schooling—Mediating Role of Psychological Resilience and Learning Engagement

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ABSTRACT

Abstract: Objective : The study aims to explore the influence of belief in a just world (BJW) on junior high school students' academic performance and the longitudinal mediating effects of psychological resilience and learning engagement. Method: A multi-point longitudinal questionnaire survey was carried out among 460 students in a rural junior high school in Tianjin by using the BJW Scale, Psychological Resilience Scale and Learning Engagement Scale. Conclusion:(1) BJW (T1) significantly predicts academic performance (T3). (2) Learning engagement (T2) alone mediates the effect between BJW (T1) and academic performance (T3). In addition, together with learning engagement (T2), psychological resilience (T2) plays a chain mediating role in the relationship between BJW (T1) and academic performance (T3).

CCS CONCEPTS

• **Applied computing** → Education; • → Education; Interactive learning environments.

KEYWORDS

Belief in a Just World (BJW), Psychological Resilience, Learning Engagement, Academic Performance, Junior High School Students

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1 INTRODUCTION

The general secretary of Xi Jinping pointed out in the 19th National Congress of the Communist Party of China: building a powerful country in education is the basic project for the great rejuvenation of the Chinese nation. Give priority to education. An important indicator reflecting the quality of education and the development of teenagers is academic achievement, which refers can obtain certain learning effects in a relatively accurate and relatively limited range, and through certain teaching and training. Acquiring knowledge and skills is a concentrated reflection of students' learning status and level [1, 2] . The long-standing urban-rural dual system in China has caused differences between urban and rural areas in various aspects such as economics and culture, and currently rural children have poor educational resources, unsatisfactory academic performance, and a lower rate of advancement to higher education. This study takes rural junior high school students as the research object to explore the mechanism of the role of just world beliefs in influencing academic achievement, and the study has unique theoretical and practical significance.

2 THEORY AND HYPOTHESIS

2.1 Just World Beliefs and Academic Achievement

Belief in a Just World (BJW) was first put forward by American psychologist Lerner. It refers to the belief that the world is just, to put it in another way, people get what they deserve and what they get is what they deserve [3]. This belief allows people to believe that the world is stable and orderly, outcomes are predictable, they will be treated fairly, and they will not be victims of unpredictable disaster. This provides people with a sense of security and control, under which people can have faith in the future, pursue long-term goals, and believe that they will get what they deserve in the end [3] .

There are two explanations for the development of this theory of just-world beliefs, one of which is from the perspective of the personal contract that children reach with society (Lerner). He argues that children's early development of delayed gratification reflects the initial conclusion of a personal contract, in which children

temporarily suppress immediate gratification of needs in order to obtain a better outcome, and then consider it their due reward when the better outcome is eventually achieved. In this process, children become more sensitive to "deserving or undeserving" and follow the principle of "deserving" to pursue and achieve their personal goals. In a sense, to invest in the future, individuals must consider whether they will receive what they give, and they need to believe that the world is just. Another theory explores the formation of just world beliefs in terms of the relationship between adults' just world beliefs and children's immanent justice reasoning (IJR). Piaget, a proponent of immanent justice, argues that young children tend to associate someone's wrongdoing with a subsequent episodic calamity as punishment for the wrongdoing, rather than recognizing the episodic nature of the calamity [4]. This direct causal explanation of behavior and outcome, also known as pre-causal explanation, is typical of the other-regarding moral stage. This pre-causal explanation is gradually replaced by a more realistic, relative causal explanation as we grow older, which will lead to a decline in the frequency of intrinsically just reasoning in late childhood and adolescence.

As a personal resource, BJW can not only reduce the negative impact of unjust events and maintain psychological health, but also promote individuals' pursuit of long-term goals [5]. Lots of studies have shown that BJW can encourage individuals to pursue long-term goals [6–8]. Especially for those disadvantaged groups, individuals with stronger BJW are more likely to invest time and energy in long-term academic and career goals, and are more persistent in face of difficulties, based on which they can change their disadvantaged status and carry out upward mobility [6]. Therefore, compared with urban children with better resources in all aspects, rural teenagers have lost at the starting line. Learning is an important way for them to walk out of the countryside towards city. Zhang Lu and You Zhiqi found in a survey of 472 rural junior high school students that BJW had a positive predictive effect on academic performance [9]. Ren Ping, Zhang Yunyun, Qin Xingna, Guo Xiaolin, and Zhao Qian also came to the same conclusion. BJW not only positively predicts academic performance through teacher support and class justice, but also predicts academic performance through the chain mediating effect of the two factors [10]. Dalbert et al. found in their study of German middle school that students with stronger BJW could adapt better in school and achieve better performance [11]. Therefore, there is preliminary evidence that BJW helps improve students' achievement.

2.2 The mediating role of mental toughness

In Lerner's theoretical account, just-world beliefs are interpreted as important resources for individuals to face disadvantageous situations, so just-world beliefs are an important mechanism influencing academic performance, which is related to the concept of mental toughness. Yu Xiaonan et al. defined mental resilience as an individual's internal psychological potential and resilience ability to mobilize all his or her own protective resources when facing adverse situations such as pain, dilemma and frustration [12]. Factors affecting mental toughness can be broadly divided into two categories, one is risk factors and the other is protective factors. Risk factors are factors that make it more difficult for individuals to

adapt and produce adverse effects, including negative life events, accidents and disasters from the external environment, as well as from their own physical defects, family genetic diseases or negative psychology. Protective factors, on the other hand, are the opposite of risk factors, which can help individuals adapt effectively and mitigate the effects of adverse factors. Mental toughness is composed of this type of factors, can be divided into internal and external two categories, internal protective factors from the individual physiological and psychological, such as intelligence level, personality traits, etc., external protective factors from the family, school, society, etc.. The process of mental toughness is the result of the dynamic interaction between protective factors and risk factors [12].

In order to study the mechanism of mental toughness and understand how protective factors reduce or compensate for the negative effects caused by risk factors, scholars have proposed different theoretical models, including Garmezy et al.'s three-theory model (compensation model, challenge model, and protection model) [13], Haase et al.'s model of adolescent mental toughness, Hunter's and Chandler's hierarchical model [14], Kumpfer's factor-process integration model [15], Richardson's process model [16], Polk's mid-level theoretical model, and Benard's model of adolescent mental toughness development.

As a result, individuals can adapt to adverse situations, recover from them even develop better. Some studies have found that BJW contributes to the improvement of psychological resilience of adolescents [17, 18]. There are also studies that have found that psychological resilience can improve the academic performance of teenagers. For example, Hu Tingting et al. found that there was a high correlation between psychological resilience and academic performance, and the target focus factor in psychological resilience can predict the academic performance of middle school students [19]. Based on the two parts of evidence, we can speculate that psychological resilience may play a mediating role between BJW and academic performance.

2.3 The mediating role of learning engagement

Learning engagement is an important antecedent variable that affects academic performance. The concept of learning engagement was first put forward by Schaufeli, who defined it as the continuous and positive emotional state of students when conducting learning activities. Similar to job engagement, learning engagement in Schaufeli's theory consists of three dimensions: Vitality, which means students are willing to take the initiative and make endeavor in learning activities, have sufficient energy and tenacity instead of getting weary easily, keep persistent in face of difficulties; Dedication, which means students recognize that learning is meaningful and possess passion and pride when conducting learning activities; Concentration, which means students can put their heart and soul into studying while keep a cheerful mood [20]. Schaufeli et al. found that students who engage more in school have better academic performance [21]. Qiao Xiaorong and Sun Weiwen also found in their research that learning engagement has a significant impact on middle school students' academic performance [22, 23].

Figure 1: The hypothesis framework

2.4 The chain mediating role of mental toughness and learning engagement

Although no research has directly studied the relationship between learning engagement and BJB, studies on the similar concept "self-oriented learning" have been implemented. Huang Zhijian found in his study that self-oriented learning plays an intermediary role between BJB and academic performance. BJB positively predicts self-oriented learning, and in turn helps improve academic performance [24]. Based on this, we speculate that learning engagement may mediate the relationship between BJB and academic performance.

Although both psychological resilience and learning engagement may play a mediating role in the influencing mechanism of BJB on the academic achievement of junior high school students, their effects may be sequential. According to the research of Liu Dan, psychological resilience has a positive predictive effect on learning engagement. The lower the level of psychological resilience is, the less learning engagement will be, and vice versa [25]. Yong Tingjun showed in his research that the higher the psychological resilience of Tibetan and Chinese middle school students is, the more conducive they are to improve their level of learning engagement. On the contrary, the lower the psychological resilience of Tibetan and Chinese middle school students is, the lower the level of their learning engagement will be [26]. It can be seen that psychological resilience plays a very important role in the level of learning engagement, and it may play a mediating role in the relationship between BJB and learning engagement. In conclusion, it can be inferred that psychological resilience and learning engagement have a chain mediating effect on the relationship between BJB and academic performance.

2.5 Research hypothesis

In general, existing research evidence supports the direct relationship between BJB and middle school students' academic performance, but the mechanism is still lacking discussion and confirmation. In this study, we examined the effects of BJB on academic performance of middle school students during home schooling by

using a multi-point longitudinal survey of students' BJB, psychological resilience and learning engagement.

Therefore, the following hypotheses can be proposed in this study:

H1: BJB significantly predicts academic performance.

H2: Psychological resilience plays a mediating role in the relationship between BJB and academic performance.

H3: Learning engagement plays a mediating role in the relationship between BJB and academic performance.

H4: Learning engagement plays a mediating role in the relationship between psychological resilience and academic performance.

H5: Psychological resilience and learning engagement play a chain mediating role in the relationship between BJB and academic performance.

The hypothesis model is shown in Figure 1

3 METHODS

3.1 Subjects

Using the method of cluster sampling, 460 students from Grade 7, 8 and 9 in a rural junior high school in Tianjin were selected to conduct a questionnaire survey, which was performed at 3 time points. The 3 time points were around one month apart. A total of 460 questionnaires were distributed and 430 valid ones were retrieved, with an effective receiving rate of 93.48%. Among them, there are 179 boys and 251 girls; 234 from Grade 7, 108 from Grade 8 and 88 from Grade 9. The subjects ranged from 14 to 17 years old, with an average age of 14.56 (SD=0.93).

3.2 Measures

The measurement tables used in this paper are mature scales that have been empirically tested.

3.2.1 BJB scale. The BJB Questionnaire was compiled by Dalbert and revised by Chinese scholars Su Zhiqiang, Zhang Dajun and Wang Xinqiang based on the actual situation in China [27, 28]. The scale consists of general just world beliefs (6 items) and personal just world beliefs (7 items), altogether 13 items. Each item of the scale is scored under the frame of 6 points. In this study, the

internal consistency coefficient of the scale was 0.912. The verification results were $\chi^2=195.641$, $\chi^2/df=3.261$, GFI=0.934, NFI=0.927, CFI=0.948, TLI=0.932, IFI=0.948, RFI=0.905, RMSEA=0.073.

3.2.2 Psychological Resilience Scale. In this study, we use the Healthy Kids Resilience Assessment (HKRA) to measure psychological resilience, which was compiled according to the psychological resilience process model and revised by Hu Yueqin and Gan Yiqun based on the actual situation in China [29]. The scale consists of 27 items, which are divided into two dimensions: personal power and supportive power. The individual dimension includes three factors: focus on goals (e.g., "I have a clear goal in my life"), control over emotion (e.g., "Failure always makes me discouraged") and positive cognition (e.g., "I think adversity can motivate people"). The supportive dimension includes two factors: family support (e.g., "My parents always respect my opinions") and interpersonal assistance (e.g., "When I have difficulties, I will take the initiative to talk to others"). There are 12 reverse scoring questions in the scale: 1, 2, 5, 6, 9, 12, 15, 16, 17, 21, 26, 27. The questions are scored under the frame of Likert-5 points, from 1 "completely disagree" to 5 "completely agree". The higher the score is, the higher level of psychological resilience will be. In this study, the internal consistency coefficient of the scale was 0.860. The verification results were $\chi^2=815.918$, $\chi^2/df=2.641$, GFI=0.871, NFI=0.757, CFI=0.724, TLI=0.855, IFI=0.834, RFI=0.832, RMSEA=0.062.

3.2.3 Learning Engagement Scale. The Trecht Work Engagement Scale-Student (UWES-S) was compiled by Schaufeli in 2002, the Chinese version of which was translated and revised by Fang Lailan, Shi Kan et al. [30]. The questionnaire consists of 17 items, including three dimensions: vitality, dedication and concentration. The vitality dimension includes 6 items, such as "When I study, I feel energetic". The dedication dimension includes 5 items, such as "I find learning challenging". The concentration dimension consists of 6 items, such as "It's hard for me to stop studying". The questions are scored under the frame of Likert-5 points, from 1 "completely disagree" to 5 "completely agree". The results were reported from Grade 7 to Grade 9. The higher the average score is, the higher level of learning engagement will be. In this study, the internal consistency coefficient of the scale was 0.934. The verification results were $\chi^2/df=3.041$, RMSEA=0.069, GFI=0.912, NFI=0.922, CFI=0.946, TLI=0.918, IFI=0.947, RFI=0.903.

3.3 The Procedure of the Study

We collected data in a multi-point longitudinal way, and the test was carried out at 3 time points. The 3 time points were around one month: at the beginning of the semester, one month later, and two months later. At the beginning of the semester, we conducted the measure of students' BJW scale; One month later, we measured the students' psychological resilience and learning engagement, and each item of the learning engagement questionnaire was added with "during the holiday" to remind them of the learning status during the period. All of these tests were conducted obtaining the informed consent of the school administrators, teachers in charge and students themselves, and took the class as the testing unit. Two months later, the students took the final exam, and we obtained the scores from the academic affairs office. Each class was equipped

with one or two psychology graduate students who had undergone strict training to explain the instructions for the subjects, and the subjects were required to fill in the questionnaires based on the actual situation and complete within the specified time (about 20 minutes). All the answers were recalled on the spot.

3.4 Data Processing

SPSS 21.0 and Mplus 7.0 were used to process the data. The statistical analysis included descriptive statistics, structural equation model analysis and Bootstrap analysis.

4 EMPIRICAL ANALYSIS

4.1 Common Method Bias

Only self-reporting method was used to collect data in this study, which may cause common method variance (CMV) [31]. According to the suggestions of Zhou Hao and Long Lirong, necessary controls have been carried out in the process of measurement, such as protecting the anonymity of responders and using reverse expressions for some items [32]. In order to further improve the rigor of the study, Harman single-factor test was used to test the CMV before data analysis. The results showed that there were 12 factors with eigenvalues greater than 1, and the explanatory variation of the first factor was 22.79%, which was far less than the critical value of 40% [31]. Therefore, there was no serious CMV in this study.

4.2 Correlation Analysis

Table 1 presented the descriptive statistics and correlation analysis results of each variables. As can be seen from the table, BJW, psychological resilience and learning engagement were all significantly positively correlated with each other, and the three factors were significantly positively correlated with students' academic performance.

4.3 Relation Model and Chain-Mediated Test between Psychological Resilience, Learning Engagement and BJW, Academic Performance

According to the mediating effect testing process raised by Wen Zhonglin and Ye Baojuan, this study adopted Mplus 7.0 to conduct structural equation model analysis on the relationships among BJW, psychological resilience, learning engagement and academic performance [33]. Considering that the percentile Bootstrap method for deviation correction can effectively reduce type II errors [34], this study tested the mediating effect by estimating Bootstrap 95% confidence interval. 5,000 Bootstrap samples were randomly selected. If the confidence interval did not contain 0, the mediating effect was significant. After controlling the gender and grade of the students, the results of structural equation model analysis showed that the model fit well, $\chi^2(39)=162.946$, CFI=0.932, TLI=0.904, RMSEA=0.08, SRMR=0.04 (see Figure 2). According to the model, when BJW, psychological resilience and learning engagement simultaneously predicted academic performance, learning engagement had a significant positive predictive effect on academic performance ($r=0.21$, $p<0.001$), while BJW and learning engagement had no significant

Table 1: The average, standard deviation and Pearson correlation of each variables

Variables	M	SD	1	2	3	4
BJW	4.60	0.88	1			
Psychological Resilience	3.54	0.55	0.33**	1		
Learning Engagement	3.49	0.72	0.34**	0.53**	1	
Academic Performance	75.87	16.68	0.10*	0.18**	0.21*	1

Note: * was significantly correlated at 0.01 level (bilateral). ** was significantly correlated at 0.05 level (bilateral).

Table 2: Mediating Effect Significance Testing

Path	Average Estimate Value	Lower End of 95% Confidence Interval	Upper End of 95% Confidence Interval
BJW-Psychological Resilience-Academic Performance	0.03	-0.08	0.21
BJW-Learning Engagement-Academic Performance	0.03	0.01	0.12
Psychological resilience-Learning Engagement-Academic Performance	0.15	0.05	0.53
BJW-Psychological Resilience-Learning Engagement-Academic Performance	0.06	0.02	0.20

effect on academic performance. Meanwhile, both BJW and psychological resilience had significant positive predictive effects on learning engagement ($r=0.13$, $p<0.001$; $r=0.69$, $p<0.001$). BJW had a significant positive predictive effect on psychological resilience ($r=0.40$, $p<0.001$). The results above indicated that students' BJW can influence their academic performance through learning engagement and can also influence academic performance through psychological resilience and in turn through learning engagement.

The results of the percentile Bootstrap method for deviation correction can be seen in Table 2, which showed that the indirect effect of BJW on academic performance through psychological resilience was $[-0.08, 0.21]$. The confidence interval included 0, indicating that the mediating effect was not significant. The indirect effect of BJW on academic performance through learning engagement was $[0.01, 0.12]$. The confidence interval did not include 0, and the mediating effect value was 0.03. The indirect effect of psychological resilience on academic performance through learning engagement was $[0.05, 0.53]$. The confidence interval did not include 0, and the mediating effect value was 0.15. The confidence interval of multiple indirect effects of BJW on academic performance through psychological resilience and then learning engagement was $[0.02, 0.20]$. The confidence interval did not include 0, and the mediating effect value is 0.06.

5 DISCUSSION

This paper explores the effects of BJW on junior high school students' academic performance during the COVID-19 quarantine period and examines the longitudinal mediating effects of mental resilience and learning engagement. In general, the hypothesis model is partially supported.

First, the results showed that BJW had a positive predictive effect on students' academic performance, which was consistent with the results of previous studies [9–11, 35, 36]. Junior high school

stage is an important turning point of rural children's life, and their academic performance is the crucial indicator of the turning point. Students with good performance will continue education of high school and college, while others may enter the job market after graduation or even drop out before graduation. Under these circumstances of setbacks, students with stronger belief in a just world have stronger commitment to long-term goals and are more inclined to persist and invest more time and energy [6]. It is also the perspective that Lerner defines the "personal contract" between children and the society. The time and energy children input in their goals, their persistence in face of frustration, their resistance in face of temptations, all contribute to their long-term goals of "walk out of the countryside towards city".

This study found that learning engagement mediated the relationship between BJW and academic performance. The mediating effect of learning engagement between psychological resilience and academic performance supports the hypothesis, which is consistent with the research of Zhang Youhong [37]. Psychological resilience and learning engagement together played a chain mediating role in the relationship between BJW and academic performance. Learning engagement not only acts as a mediator between BJW and academic performance alone, but also acts as a chain mediator together with psychological resilience. It is a proximal influencing factor of students' academic performance. Learning engagement reflects students' active control over learning in aspects of cognition, emotion and behavior. Among them, the vitality and concentration particularly reflect students' will of resistance to pressure and frustration, elimination of interference and perseverance [21]. Psychological resilience, as a positive psychological trait, can mobilize individuals' protective resources, help them to cope well in adverse situations and maintain a positive mood [38]. Therefore, it positively motivates students' learning engagement. Research has showed that psychological resilience is significantly positively correlated with

Figure 2: Mediation model of just world beliefs affecting academic achievement Note: *** indicates $p < 0.001$, dashed line indicates that the path coefficient is not significant, solid line indicates significant

learning engagement, and positively predicts the level of learning engagement [39, 40]. Li Yinsheng also found that the two factors of active learning and effective learning in urban junior high schools were higher than those in rural areas [41]. Liang Jieying found in her research that rural junior high school students scored the lowest in effective learning [42]. Therefore, exogenous factors such as family economic status and parent-child relationship relatively affect academic performance, while endogenous factors such as learning engagement, learning motive, learning attitude, academic shame, academic self-efficacy and self-control play a more important role in academic performance. During the home-schooling period, teachers' guidance, parents' company, encouragement and support will stimulate students' learning motivation. Students have greater confidence in the realization of their goals, so they will be more prepared for learning, which lead them more likely to make academic achievement.

Contrary to our hypothesis, this study did not find independent mediating effect of mental resilience in the relationship between BJW and academic performance. BJW can significantly predict psychological resilience, but the reverse is not verified, which is not consistent with previous studies [43, 44]. Guo Buzhou also concluded in his research that only family support in the dimension of psychological resilience was significantly positively correlated with academic performance, while other factors in psychological resilience did not correlate significantly with academic performance [45]. Lai Caihua also concluded that psychological resilience had a significant positive predictive effect on academic performance [46]. When putting deferred academic gratification into the regression equation, the predictive effect of psychological resilience on academic performance was no longer significant, and deferred academic gratification played a complete mediating role in the predictive relationship between psychological resilience and academic

performance. There is a significant positive correlation between psychological resilience and academic performance, but psychological resilience cannot significantly predict academic performance, which obviously reflects that there are many factors that affect students' academic performance, such as ability, foundation of knowledge, learning skills, learning habits, teachers' instructions, etc. Psychological resilience may predict academic performance through other variables, which needs further improvement and more comprehensive consideration in subsequent studies.

6 SIGNIFICANCE AND DEFICIENCY OF THE STUDY

The results of this study have enlightening significance for educators and parents. In order to improve children's academic performance, we should not only focus on the learning itself, but also consciously cultivate and improve students' inner positive qualities. First, educators and parents should develop children's sound value of justice, make them believe that their effort will be rewarded, so they can have positive expectations for the future and study hard. Second, if teenagers do not have a correct recognition towards justice, they cannot actively face the setbacks in study and life, and it is difficult for them to achieve the goals they set. Consequently, their psychological resilience is reduced, which will easily make them feel frustrated. Therefore, educators and parents should cultivate teenagers to recognize social justice correctly, guide them to develop faith in justice, thus developing their psychological resilience and learning engagement, which helps them to have courage to face the obstacles in study and life, and in turn improve their academic performance.

The research has the following limitations: First, this study only explored the mediating effects of psychological resilience and learning engagement on BJW and students' academic performance, while other mediating variables need to be further studied. Second, due

to limited conditions, research subjects were all from a rural junior high school in Tianjin, from Grade 7 to Grade 9. The age span was small, and students' origin and their family economic and social status were similar. In the future study, we can take various regions and samples into consideration. Third, the same method of self-assessment questionnaire was adapted to teenagers' BJW, psychological resilience and learning engagement, which may lead to certain deviation.

7 CONCLUSION

Our study draws four conclusions as follow:

1. BJW can significantly predict academic performance
2. BJW can affect academic performance through learning engagement alone, and learning engagement plays a mediating role between psychological resilience and academic performance
3. Psychological resilience and learning engagement play a chain mediating role in the relationship between BJW and academic performance.

REFERENCES

- [1] Cheng, R. C. (1987). Psychological measurement. Changsha: Hunan Education Publishing House, 288.
- [2] Nietzel, M. T., Bernstein, D. A., & Milich, R. (1994). *Introduction to Clinical Psychology*. New Jersey: Prentice-Hall.
- [3] Lerner, M. J., & Miller, D.T. (1978). Just World Research and the Attribution Process: Looking back and ahead. *Psychological Bulletin*, 85(5): 1030-1051.
- [4] Piaget, T.S. Fu, and Ambrose Lu. (1984). Moral judgment of children: Shandong Education Press.
- [5] Zhou Chunyan, Guo Yongyu. Just World Beliefs: A Double-edged Sword to Rebuild Justice [J]. *Advances in Psychological Science*, 2013, 21(01): 144-154.
- [6] Zhou Chunyan (2013). Study on the Effect of Just World Beliefs of Individuals of Different Social Classes and the Social Function [D]. Central China Normal University.
- [7] Hafer, C. L. (2000b). Investment in long-term goals and commitment to just means drive the need to believe in a just world. *Personality and Social Psychology Bulletin*, 26(9), 1059-1073.
- [8] Hafer, C. L., Begue, L., Choma, B. L., & Dempsey, J. L. (2005). Belief in a just world long-term deserved outcomes. *Social Justice Research*, 18(4), 429-444.
- [9] Zhang Lu, You Zhiqi (2014). Analysis on the Influence, Moderating and Mediating Effect of Just World Belief, Gratitude and Time Management on Academic Achievement of Rural Junior High School Students. *Chinese Journal of Special Education*, (11): 62-67.
- [10] Ren Ping, Zhang Yunyun, Feng Xingna, Guo Youlin, Zhao Qian (2017). The Influence of Just World Belief on Junior High School Students' Academic Achievement: The Mediating Role of Perceived Teacher Support and Class Justice [J]. *Psychological Development and Education*, 33(02): 191-197.
- [11] Dalbert, C., & Stoerber, J. (2005). The Belief in a Just World and Distress at School. *Social Psychology of Education*, 8(2): 123-135.
- [12] Yu Xiaonan, Zhang Jianxin (2005). Resilience: Psychological Mechanisms for Recovery and Growth under Stress [J]. *Advances in Psychological Science*, 2005(05): 658-665.
- [13] Garnezy, A.S. Masten, & Tellegen. The Study of Stress and Competence in Children: A Building Block for Developmental Psychology. *Child Development*, 1984, 55: 97-111.
- [14] Kaplan C.P., Tuener S., Norman E., & Stillson K.. Promoting resilience strategies: A modified consultation model [J]. *Social Work in Education*, 1996, 18(3): 158-168.
- [15] Kumpfer K.L. Factors and processes contributing to resilience: There silience framework. IN: Glantz M.D. & Johnson J.L. (Eds.). *Resiliency and development: Positive life adaptations*. NY: Kluwer Academic, 1999, 179-224.
- [16] Glenn E. Rihardson. The Metatheory of Resilience and Resiliency [J]. *Journal of Clinical Psychology*, 2002, 58(3): 307-321.
- [17] Laurin, K., Fitzsimons, G. M., & Kay, A.C. (2010). Social Disadvantage and the Self-regulatory Function of Justice Beliefs. *Journal of Personality and Social Psychology*, 100(1): 149-171.
- [18] Guo Cheng, Zhang Linya, Yang Yingkai (2019). The Relationship between Subjective Socioeconomic Status and Psychological Resilience of Adolescents: The Role of Just World Beliefs [J]. *Journal of Southwest University (Social Science Edition)*, 45(04): 109-117, 199.
- [19] Hu Tingting (2013). The Relationship between Mental Resilience and Academic Achievement of Middle School Students [J]. *China Journal of Health Psychology*, 21(11): 1729-1731.
- [20] Schaufeli, W.B., Salanova, M., Gonzalezromera, V., Bakker, A.B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3(1): 71-92.
- [21] Schaufeli, W.B., Martinez, I.M., Marques-Pinto, A., et al. (2002). Burnout and Engagement in University Students: Across-national Study [J]. *Journal of Cross-Cultural Psychology*, 33(5): 464-481.
- [22] Qiao Xiaorong (2006). Self-determination in Mathematics Learning and its Relationship with Mathematics Learning Engagement of Middle School Students. Henan University.
- [23] Sun Weiwen (2009). The Influence of Daily Academic Resilience and Learning Engagement on Academic Achievement of Senior High School Students [D]. Northeast Normal University.
- [24] Huang Zhijian. The Effect of Just World Belief on Academic Achievement of High School Students: The Mediating Role of Self-oriented Learning [D]. Sichuan Normal University, 2019.
- [25] Liu Dan (2011). Study on the Relationship between the Attitude towards Academic Burden, Mental Resilience and Learning Engagement of Senior High School Students [D]. Hebei Normal University.
- [26] Yong Tingjun (2018). Comparative Study on the Relationship between Tibetan and Chinese Students' Resilience, Academic Emotion and Learning Engagement [D]. Liaocheng University.
- [27] Dalbert, C. (1999). The World is More Just for me than Generally: About the Personal Belief in a Just World Scale's Validity. *Social Justice Research*, 12(2): 79-98.
- [28] Su Zhiqiang, Zhang Dajun, Wang Xinqiang (2012). The Revision of Just World Belief Scale and Study on its Reliability and Validity for College Students. *Chinese Journal of Behavioral Medicine and Brain Science*, 21(6): 561-563.
- [29] Hu Yueqin, Gan Yiqun (2008). Compilation and Validation of Adolescent Mental Resilience Scale [J]. *Acta Psychologica Sinica*, 40(8): 902-912.
- [30] Fang Laitan, Shi Kan, Zhang Fenghua (2008). Reliability and Validity of Chinese Language Learning Engagement Scale [J]. *Chinese Journal of Clinical Psychology*, 16(06): 618-620.
- [31] Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- [32] Zhou Hao, Long Lirong (2004). Statistical Test and Control Method for Common Method Variance. *Advances in Psychological Science*, 12(6): 942-950.
- [33] Wen Zhonglin, Ye Baojuan (2014). Mediating Effect Analysis: Methodology and Model Development. *Advances in Psychological Science*, 22(5): 731-745.
- [34] Mackinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence Limits for the Indirect Effect. *Multivariate Behavioral Research*, 39(1): 99-128.
- [35] Zhang Mei, Huang Silin, Sun Ling, Dou Donghui (2018). The Impact of Just World Beliefs on College Students' Academic Performance: the Interpretation of Time Management [J]. *Psychological Development and Education*, 34(03): 330-337.
- [36] Coffea, I., & Dalbert, C. (2007). Belief in a Just World, Justice Concerns, and Well-being at Portuguese Schools. *European Journal of Psychology of Education*, 22(4): 421-437.
- [37] Zhang Youhong (2017). The Relationship between Psychological Resilience, Engagement in English Learning and English Academic Performance of Junior High School Students [J]. *Journal of Educational Development*, (04): 36-40.
- [38] Klika, J.B., & Herrenkohl, T.I. (2013). A Review of Develop Psychological Research on Resilience in Maltreated Children. *Trauma Violence & Abuse*, 14(3): 222-234.
- [39] Dong Zesong, Wei Changwu, Lan Xingniu, Mo Luxi (2017). The Mediating Role of Psychological Resilience in Gratitude and Learning Engagement of Left-behind Children in Eastern Guangxi Ethnic Region. *Chinese Journal of School Health*, 38(4): 598-600.
- [40] Hong Li, Yuan Pengli, Li Jing (2014). The Influence of Teacher Expectation and Psychological Resilience on Learning Engagement of Junior High School Students. *Journal of Shandong Youth League School*, 4: 31-34.
- [41] Li Yinsheng. Study on the Influence of Emotional Intelligence and Self-oriented Learning Inclination on Academic Achievement of Junior High School Students [D]. Xinxiang Medical College, 2015.
- [42] Liang Yingjie (2017). Study on Self-oriented Learning Inclination of Senior High School Students. Guangzhou University.
- [43] Putwain, D.W., Nicholson, L.J., Connors, L., & Wood, K. (2013). Resilient Children are Less Test Anxious and Perform Better in Tests at the End of Primary Schooling. *Learning and Individual Differences*, 28(10): 41-46.
- [44] Xin Peina. Intervention Study on the Influence of Social Support and Psychological Resilience on Academic Achievement of Left-behind Children [D]. Jiangxi Normal University, 2017.
- [45] Guo Buzhou (2011). A Study on the Relationship between Self-concept, Psychological Resilience and Academic Achievement in Senior High School Students [D]. Xinyang Normal University
- [46] Lai Caihua. The Influence of Psychological Resilience on Academic Achievement of High School Students: The Mediating Role of Deferred Academic Gratification [J]. *Mental Health Education in Primary and Secondary Schools*, 2014(12): 20-23.