

## **A STUDY ON STUDENTS' PERCEIVED SCHOOL BELONGINGNESS AT Z UNIVERSITY IN JINAN CITY, SHANDONG PROVINCE, CHINA**

**Doudou Zhu** <sup>1\*</sup>

**Yanan Yang** <sup>2</sup>

<sup>1</sup> Master Candidate in Educational Administration, Stamford International University of Thailand

<sup>2</sup> Lecturer, Stamford International University, Thailand, xiaoyarain@hotmail.com

\* Corresponding Author, E-mail: 542201235@qq.com

**Abstract:** This study aimed to investigate the students' perceived school belongingness at Z University in Jinan City, Shandong Province. This study analyzed 348 valid questionnaires collected using SPSS statistical analysis software. The data analysis methods included descriptive analysis, independent sample t-test and one-way ANOVA analysis of variance. The specific research results indicated that: The overall students' perceived school belongingness was relatively good at Z University in Jinan City, Shandong Province. The students' perceived school belongingness significantly among different demographic backgrounds. Based on the research results, targeted suggestions were put forward. Created an inclusive and supportive school atmosphere for students. Improved interactions and relationships between teachers and students. Helped students improve their social skills. Let students feel the school's warm atmosphere and the attention paid to them. Made students more confident and prouder and better integrated into the school collective. It would enhance school belongingness.

**Keywords:** Z University, University Student, Students' Perceived School Belongingness

### **Introduction**

With the continuous changes of the times, the economy, politics, and other aspects of countries worldwide underwent tremendous changes. It required continuous innovation in the global education system and educational philosophy to adapt to the development of the times. At the same time, countries worldwide began to vigorously develop their education to gain a competitive advantage in the market.

University students were the backbone of social development and progress, full of vitality and vigor. Families, schools, and society all had high hopes for them to thrive and contribute to society. However, some university students faced various psychological problems. Some students felt lonely and lost when adapting to new environments, lacking belongingness (Qin, 2022). Some students had worked hard for the college entrance examination, but when the goal disappeared, they felt lost, confused, and helpless about the future. This emotion often made students feel disconnected and

depressed. They didn't know how to plan their life path next. So, some students chose to fill the emptiness of life with various online games but found that this did not bring them true satisfaction. They could not find the meaning of life, and their hearts were filled with boredom and emptiness (Lu et al., 2020). These problems challenged the emotional stability and mental health of university students and required the attention and support of society and schools.

Famous psychologist Maslow proposed the hierarchy of needs theory, which stated that one of the basic human needs was a sense of belonging. When individuals lacked a sense of belonging, they felt a lack of presence, which affected their mental health and overall well-being (Du & Chen, 2019). Firstly, if students had a sense of belonging, they would feel proud of the school's honors. Conversely, if students have reduced or no centripetal force towards the school, they would not experience the pride brought by the school (Fang, 2018). Secondly, students' perceived school belongingness affects that the school was an important place for their growth, and their sense of school belongingness directly affected their ability to thrive. In addition, students perceived school belongingness could influence their centripetal force towards the school. When students had a relatively high level of perceived school belongingness, their school centripetal force also increased. Students felt proud to be members of the school, consciously maintained the honor of the school, and also gained good interpersonal relationships due to the school. The higher the students' perceived school belongingness, the more they would actively integrate into interpersonal communication. Conversely, it might lead to difficulties in interpersonal communication due to not recognizing their classmates, resulting in feelings of loneliness (Yang, 2020). Thirdly, students' perceived school belongingness affected their interests and hobbies during school. If students have a low sense of school belongingness, it might lead to a lack of motivation to develop interests and hobbies (Gao et al., 2017). Fourthly, there was a significant negative correlation between students' perceived school belongingness and their mental health issues. That was, the stronger students' perceived school belongingness, the lower their occurrence of mental health problems, including somatization, depression, paranoia, and adversarial equivalence (Wen et al., 2023). Therefore, students' perceived school belongingness profoundly impacted their development.

As an important force for the country's future, university students were at a crucial stage in their growth. Although their physiological development has reached maturity, their psychology was still in a developmental stage and had not yet fully matured. At this particular stage, university students were often faced with a series of psychological troubles and conflicts, such as the contradiction between independence and dependence, the contradiction between longing for intimacy and feeling of loneliness, the contradiction between inner closure and longing for understanding, and the conflict between sexual desire and immaturity of sexual psychology. These issues had a significant impact on the mental health and development of university students and required attention and support. The study thought that if higher education institutions, managers and educators could provide students with more support and

care for a higher level of school belongingness, they could help alleviate these problems and conflicts. Based on the above situation, this study investigated the current level of students' perceived school belongingness at Z University in Jinan City, Shandong Province, China. Further, it explored the differences and impacts of different demographic backgrounds on students' perceived school belongingness. Through discussion and analysis, targeted suggestions would be proposed to improve students' perceived school belongingness and enable them to develop comprehensively and healthily.

### **Research Objectives**

1) To understand the current students' perceived school belongingness at Z University in Jinan, Shandong Province, China.

2) To explore the differences in students' perceived school belongingness at Z University in Shandong Province, China, based on demographic backgrounds such as gender, grade, whether to serve as a class cadre or not, and whether only child or not.

### **Literature Review**

#### ***Research on the Concept of School Belongingness***

School belongingness was a derivative concept of real-time belonging in the education field. Although it has attracted the attention of many scholars and experts, it has not yet formed a unified conceptual definition. Goodnow's (1993) viewpoint was the reference basis for defining school belongingness among the vast majority of mathematicians in the academic community. He believed that the concept of school belongingness should be divided into two parts. On the one hand, students felt in their school's belongingness and were a part of it, sharing their wealth and woe with the school. On the other hand, positive evaluations and encouragement from schools and teachers provided students with positive psychological experiences.

The individual's school belongingness was an internal feeling when an individual was recognized and accepted by the collective (Wu et al., 2018). The sense of school belongingness refers to a positive feeling of emotional support generated by students' recognition, acceptance and tolerance on campus (Zhao, 2020). Regarding the research on school belongingness, scholars have defined it from different perspectives, but there has not yet been a unified standard for determining it. The definition of school belongingness encompassed the feeling that students were respected and comfortable in school, as well as feeling their value, being accepted in school, and emotional intersection with their class or school (Williams, 2018). In addition, studies suggested that school belongingness was an emotional experience that included students feeling respect, tolerance, and support from teachers and classmates, as well as their sense of identity as a part of the school (Gao & Liu, 2021). According to Gopalan et al. (2021), school belongingness could directly affect students' campus identity and engagement, such as

their willingness to take responsibility and actively participate in campus activities. Meanwhile, research by Du & Chen (2019) suggested that students' perceived school belongingness could be measured by students' level of identification and engagement with the school in terms of ideology, psychology, and emotions. In addition, Wu et al. (2018) believed that school belongingness was a comprehensive cognitive and emotional experience of whether students feel satisfied with themselves and make corresponding behaviors.

### ***Research on the Dimension of School Belongingness***

Regarding the school environment and student learning, many studies found that the better the perceived school environment, the higher their academic achievement (Li et al., 2017). In addition, a good school environment could also help students stimulate learning motivation, improve learning engagement and school happiness, and promote academic performance improvement (Liu, 2017). Huang et al. (2018) also found that students who perceived a more positive school environment tended to exhibit less academic burnout. Regarding the school environment and individual behavior issues, Xie & Mei (2022) found that the better the school environment perceived by students, the less likely they were to be bullied. Yu (2017) studied left-behind children and found that the more support they perceived from teachers, students, and classmates in the school environment, the lower their sense of loneliness, hyperactivity, conduct, and other issues, and they exhibited more prosocial behavior. Regarding the school environment and mental health, Xu & Deng (2016) found that the school environment could significantly negatively predict the level of depression in students. Zhu et al. (2017) conducted a questionnaire survey on 600 middle school students. They found a significant positive correlation between their perceived school environment and their mental health level.

For students, perceiving the teacher's supportive behavior was essential to their overall development (Yu & Singh, 2018). Zhang et al. (2018) found that perceived teacher support behavior, as a positive factor, played an essential role in student growth. Li & Bai (2018) found a significant positive correlation between students' perception of teacher emotional support and their academic performance. The more perceived teacher support students had, the better their academic performance was. Ye (2019) proposed the same viewpoint in his research. When students had a strong belief in fairness, they were willing for the teacher to treat each student objectively and fairly and thought that the classroom atmosphere was harmonious and fair. They could support their reasonable beliefs, which was conducive to stimulating learning motivation and improving academic performance (Ren et al., 2017).

School engagement was an indicator that reflected the active participation of students in various school activities. Schools invest more in interaction, collaboration, and perception than academic performance, which could be directly measured through exams. Students' school engagement was vital

to improving their social psychology and educational outcomes. For example, school adaptation, self-esteem, and academic achievement (Carmona et al., 2021). When students felt a belongingness in school, they tended to internalize the values and goals related to the school, leading to school engagement. In connecting students with the school, they tried to meet its expectations, establish healthy school relationships, and promote cognitive and behavioral participation in educational and teaching practices. This process directly affected their academic performance and self-development level (Stefansson et al., 2018). Many studies abroad found that decreased student investment might lead to problems such as insufficient school engagement, increased problematic behavior, and even dropout (Leonard & Gudino, 2021).

As a social-ecological factor, peer relationships affected students' physical and mental development. Vannatta et al. (2009) proposed that the social acceptance level reflected by peer welcoming provided a wide range of opportunities for student's social and psychological development, affecting their cognition, emotions, self-concept, and social interaction. Good peer relationships promote individual growth, as proven in relevant empirical research. Just like how peer relationships affected an individual's self-concept (Gu, 2021), after the intervention, it was found that self-concept also improved (Li, 2018). In addition, Huang et al. (2021) found that peer relationships could affect self-esteem. Raboteg & Sakic (2014) found that students with relatively high friendship quality also had high levels of life satisfaction, subjective well-being, and self-esteem. In addition, researchers found that the more harmonious the relationship between students and their peers, the better their performance in school adaptation (Wu et al., 2023).

After entering a new school environment, integrating students into the school could directly affect whether their personality could develop healthily. Chen (2019) explained it as integrating students into the school's learning environment, interpersonal communication, and other aspects after entering the school. Zhang et al. (2021) believed that school integration referred to the ability of students to adapt to the new campus and learning environment after entering a new school, thereby promoting their physical and mental health development. Research on school integration mainly focused on two aspects. One was research on the current situation of school integration. According to Yang & Shi (2018)'s study showed that some students faced difficulties in school integration, which manifested in behavioral, psychological, and self-identity aspects. The second was research on the influencing factors of school integration.

### ***Research on School Belongingness***

Numerous factors influenced the students' perceived school belongingness. Li (2011) showed that the intention to fill out college applications directly affected students' perceived school belongingness, especially in the early stages of school belongingness formation. Du (2010) found that

the school environment could directly affect university students' perceived level of school belongingness. Gu (2014) obtained a similar viewpoint in her research, suggesting that the environment and reputation of a school could also affect students' perceived level of school belongingness to a certain extent. Yang et al. (2018) proposed that the living environment of students on campus could also affect their school belongingness.

In addition, individual factors that affected students' perceived school belongingness could not be separated. Huang (2014) found that the higher the level of self-worth among university students, the stronger their school belongingness. In addition, there was a significant correlation between students' self-efficacy and their school belongingness, which was relatively high. The self-efficacy of students could positively predict the level of school belongingness (Zhang, 2012). It showed that students' interpersonal relationships could directly affect the generation of their school belongingness. Many research results showed a significant positive correlation between students' interpersonal relationships and school belongingness (Song, 2017). The stronger the interpersonal communication ability of students, the stronger their perception of school belongingness (Cao, 2016). If students had difficulties in interpersonal relationships, they perceived school belongingness as relatively poor (Cheng, 2014). In addition, Zhang (2020) explored the factors that affected students' perceived school belongingness in his research and found that factors such as self-concept, class environment, peer relationships, teacher-student relationships, and school adaptation could all affect students' perceived school belongingness.

Chen et al. (2023) conducted an in-depth exploration of the relationship between students' psychological adaptation, school belongingness, social support, and professional identity, as well as their influencing mechanisms. The research showed a significant positive correlation between social support, professional identity, school belongingness, and psychological adaptation. School belongingness played a partial mediating role in the relationship between social support and professional identity. Social support could directly affect an individual's professional identity and indirectly impact their professional identity through school belongingness.

Overall, the factors influencing student school belongingness could be roughly divided into individual and school factors. Students' factors included college entrance examination preferences, self-efficacy, self-worth, interpersonal relationships, etc. School factors had school reputation, campus environment, campus atmosphere, etc. These factors worked together to influence students' sense of identification, belonging, and participation in the school, affecting their learning and living conditions.

## **Methodology**

The research subjects were undergraduate students from Z University in Shandong Province, China. In the formal investigation stage, the school liaison personnel distributed questionnaires to undergraduate students at Z University, with a total of 6600 undergraduates. According to Krejcie &



Morgan's (1970) Morgan Scale research sample size standard, 364 questionnaires were distributed, and after the screening, 348 valid questionnaires were obtained, and the effective return rate reached 95.6%.

Based on relevant research on students' perceived school belongingness, this study used a school belongingness questionnaire developed by Rao & Jiang (2022), which consisted of 24 items and was divided into five dimensions: school environment, teacher behavior, school engagement, peer relationships, and school integration.

The school belongingness questionnaire included Cronbach's  $\alpha$  dimensions in various dimensions were all above 0.7, and the overall internal consistency of the questionnaire was 0.873, which was greater than 0.8, indicating that the questionnaire had good reliability.

This study tested the validity of the school belongingness questionnaire. The KMO value was 0.881, and Bartlett's sphericity test's approximate chi-square value was 2579.859, reaching a significant level. Exploratory factor analysis showed that factor analysis extracted 5 common factors with a cumulative explanatory rate of 53.175%, indicating the questionnaire had good validity.

## **Results**

### ***Demographic Analysis of the Respondents***

This study focused on students from Z University in Jinan, Shandong Province, China, and conducted a demographic background analysis on 348 data sets. The specific situation of the sample size for different demographic backgrounds in this study was as follows: regarding gender, there were 146 males, accounting for 42.0% of the total sample size, and 202 females, accounting for 58.0% of the total sample size; regarding grade, there were 95 freshmen, accounting for 27.3% of the total sample size, 91 sophomores, accounting for 26.1% of the total sample size, 84 junior students, accounting for 24.1% of the total sample size, and 78 senior students, accounting for 22.4% of the total sample size; regarding whether or not to serve as class cadres, there were 99 class cadres, accounting for 28.4% of the total sample size, and 249 students who did not serve as class cadres, accounting for 71.6% of the total sample size; regarding whether only child or not, there was 90 only child, accounting for 25.9% of the total sample size, and 258 non-only child, accounting for 74.1% of the total sample size.

### ***Descriptive Statistical Analysis***

This study conducted a descriptive statistical analysis of the level of students' perceived school belongingness at Z University in Jinan, Shandong Province, China. As shown in Table 1, the overall level of students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, was  $M=3.41$ , and the mean score of each dimension was between 3.10-3.65, which was higher than the theoretical mean of 3. It indicated that the overall level of students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, was good. In descending order,

the scores were for peer relationships, school environment, school engagement, teacher behavior, and school integration.

**Table 1:** Descriptive Statistical Analysis of Students' Perceived School Belongingness at Z University (N=348)

Dimension	Mean	SD
School environment	3.64	0.64
Teacher behavior	3.27	0.49
School engagement	3.36	0.47
Peer relationships	3.65	0.61
School integration	3.10	0.59
Overall school belongingness	3.41	0.41

### ***Differential Analysis of Students' Perceived School Belongingness under Different Demographic Backgrounds***

There were significant differences in the students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, based on demographic backgrounds such as gender, grade, whether to serve as a class cadre or not, and whether only child or not.

There was a significant gender difference in students' perceived school belongingness at Z University in Jinan City, Shandong Province, China. Unlike males, females had a significantly higher level of perceived school belongingness.

There was a significant grade difference in students' perceived school belongingness at Z University in Jinan, Shandong Province, China. Junior and senior students had a relatively higher level of perceived school belongingness, while sophomore students had a relatively lower level of perceived school belongingness.

There was a significant difference in students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, regarding whether or not to serve as a class cadre. Compared with students who did not serve as class cadres, students who served as class cadres perceived a relatively higher level of school belongingness.

There was a significant difference in students' perceived school belongingness at Z University in Jinan, Shandong Province, China, whether only child or not. Only child had a relatively higher level of perceived school belongingness, while the non-only child had a relatively lower level.

## **Discussion**

### ***Discussion on the Current Students' Perceived School Belongingness at Z University in Jinan, Shandong Province, China***

The results of this study showed that the overall students' perceived school belongingness at Z



University in Jinan City, Shandong Province, China, was at a reasonable level. Among them, peer relationships scored the highest, followed by the school environment, engagement, teacher behavior, and school integration. This research result was consistent with the findings by Lu et al. (2020). The reasons for this situation analyzed might have included the following: firstly, good peer relationships among students might have been the main factor affecting the overall school belongingness, and mutual support and friendly peer relationships usually helped to form a positive school belongingness. Secondly, the environment and resources provided by the school might have had a positive impact on students' perceived school belongingness. A comfortable learning environment and convenient facilities could have promoted students' sense of identification with the school.

### ***Discussion on Differences in Students' Perceived School Belongingness at Z University in Jinan, Shandong Province, China under Different Demographic Backgrounds***

This study's results showed a significant difference in students' perceived school belongingness of different genders at Z University in Jinan City, Shandong Province, China. Unlike males, females had a relatively higher level of perceived school belongingness. This research result was consistent with existing research findings (Tian et al., 2018). The reasons for this situation analyzed might have included the following: firstly, females tended to place more emphasis on social interaction and building interpersonal relationships, while more substantial dimensions of peer relationships might have been more prominent among females, who might have been more inclined to establish close friendships and social networks, which were crucial for the formation of school belongingness; Secondly, females might have been more willing to express emotions and resonance, which might have made them more likely to feel understood and supported regarding school environment, teacher behavior, and school engagement, thereby enhancing their school belongingness.

This study showed a significant difference in the students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, regarding grade level. The perceived level of school belongingness among junior and senior students was significantly higher than that of sophomore students. This research result was consistent with the research results of Diao (2021). The reasons for this situation analyzed in this study might have included the following: Firstly, junior and senior students might have spent more time in school, accumulated more school experience, and might have had a better understanding of school culture, teaching methods, and social networks, making them more likely to feel school belongingness; Secondly, junior and senior students typically faced more academic challenges and professional development, but at the same time, they also had more opportunities to participate in advanced courses, internships, and research projects, which might have increased their sense of integration into school.

This study showed a significant correlation between whether Z University students in Jinan

City, Shandong Province, China, served as class cadres and students' perceived school belongingness. Compared with students who did not serve as class cadres, students who served as class cadres had a relatively higher level of perceived school belongingness. This research result was consistent with existing research results (Xiao et al., 2019). The reasons for this situation analyzed in this study might have included the following: firstly, students who served as class cadres usually needed to assume specific leadership roles and responsibilities, enabling them to participate more deeply in school affairs. This leadership experience and sense of responsibility have increased their understanding of integration and school belongingness. Secondly, class cadres usually had more opportunities to interact with classmates, teachers, and school management. Expanding this social network might have enabled them to establish broader connections within the school community, enhancing their school belongingness.

This study showed a significant difference between whether students from Z University in Jinan City, Shandong Province, China, were only child and students' perceived school belongingness. Compared with non-only child, only child students had relatively higher perceived school belongingness. This research result was consistent with existing research findings (Lu et al., 2020). The reasons for this situation analyzed in this study might have included the following: only child were usually more concerned in the family, which might have helped cultivate their social skills and ability to build relationships with others. Therefore, they might have been more likely to establish good peer relationships and improve their school belongingness. Secondly, only child might have been more independent in the environment without brothers and sisters and have more vital self-adjustment abilities, which might have made them more accessible to adapt to the school environment and enhance their school belongingness.

## **Conclusion**

1) The overall level of students' perceived school belongingness at Z University in Jinan, Shandong Province, China was good.

2) There were significant differences in the students' perceived school belongingness at Z University in Jinan City, Shandong Province, China, based on demographic backgrounds such as gender, grade, whether to serve as a class cadre or not, and whether only child or not.

## **References**

- Cao, L. (2016). *A Study on the Relationship and Intervention of Interpersonal Communication Ability and School Belongingness among Vocational School Students*. Master's thesis from Hebei Normal University.
- Carmona, H. M., Salanova, M., Llorens, S., & Schaufeli, W. B. (2021). Linking positive emotions and academic performance: the mediated role of educational, psychological capital and scholarly

- engagement. *Current Psychology*, (6), 40-49.
- Chen, M. X. (2019). A study on the integration dilemma of strangers in school life. *Master's thesis from Nanjing Normal University*.
- Chen, Y. X., He, H. H., & Yang, Y. (2023). Effects of Social Support on Professional Identity of Secondary Vocational Students Major in Preschool Nursery Teacher Program: A Chain Mediating Model of Psychological Adjustment and School Belonging. *Sustainability*, 15(6), 5134.
- Cheng, X. Z. (2014). A Study on the Relationship between Personality Traits, Interpersonal Relationships, and School Belongingness of High School Students. *Master's Thesis from Jiangxi Normal University*.
- Diao, D. D. (2021). Empirical Analysis of Differences in Students' Perceived School Belongingness in Different Grades. *Intelligence*, (30), 171-173.
- Du, H. Q. (2010). A Study on School Belongingness and Its Influencing Factors among University Students. *Master's Thesis from Southwest University*.
- Du, X. E., & Chen, K. L. (2019). Exploration of Methods for Class Teachers to Improve the School Belongingness of Five-Year Unified Vocational University Students. *Guangdong Education: Vocational Education*, (5), 58-59.
- Fang, L. (2018). A survey and analysis of middle school students' perceived school belongingness and its influencing factors. *Master's thesis from Anhui Normal University*.
- Gao, F., & Liu, H. C. Y. (2021). Guests in someone else's house? Belongingness among ethnic minority students in a Hong Kong university. *British Educational Research Journal*, 47(4), 1004-1020.
- Gao, J. J., Tong, J., Mao, Y. M., Tang, Q, Dou, L. J., & Wang, J. (2017). The moderating effect of medical students' professional interests and school belongingness, as well as satisfaction with teachers and teaching aids. *Modern Preventive Medicine*, (14), 44.
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30(1),79-90.
- Gopalan, M., Linden-Carmichael, A., & Lanza, S. (2021). University students' belongingness and mental health amidst the COVID-19 pandemic. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine*, 70(2), 228-233.
- Gu, F. S. (2021). A study on peer relationships, self-concept, and mental health among freshman students. *Growth*, (10), 77-78.
- Gu, W. W. (2014). Analysis of the influencing factors of school belongingness among five-year vocational university students in Nanjing. *Master's thesis from Nanjing Normal University*.
- Huang, H. H. (2014). Research on the Current Situation and Relationship of School Belongingness, Self-worth, and Interpersonal Relationships among University students. *Master's thesis from*

*Central China Normal University.*

- Huang, Y. Q., Liu, X. L., Lai, X. L., Zhou, Z. H., & Jin, W. W. (2018). *The relationship between school atmosphere and academic burnout: the mediating effect of academic self-efficacy and the moderating effect of parental homework participation*. Summary of the 21st National Conference on Psychology.
- Huang, Z. W., Ye, B. J., Yang, Q., & Xu, L. (2021). The impact of social-emotional ability on the social adaptation ability of middle school students: a chain mediating effect of peer relationships and self-esteem Chinese. *Journal of Health Psychology*, 29(11), 6.
- Leonard, S. S., & Gudino, O. G. (2021). Beyond school engagement: school adaptation and its role in bolstering resilience among youth involved with child welfare services. *Child & Youth Care Forum*, 50(2), 39-59.
- Li, Q. (2011). Analysis of Factors Influencing University students' perceived school belongingness - Taking E University as an Example. *Master's thesis from East China Normal University*.
- Li, W. T., Liu, X. L., Yu, C. F., Zhang, C. X., & Ye, P. Y. (2017). School atmosphere and academic achievement of middle school students: the mediating effect of academic emotions and the moderating effect of future orientation. *Psychological Development and Education*, 33(2), 198-205.
- Li, W., & Bai, Y. Y. (2018). How does the perceived teacher support of sophomore students affect academic performance: An analysis of multiple mediating effects based on academic self-efficacy and learning engagement. *Education and Economy*, 34(6), 86-92.
- Li, X. Q. (2018). The effect of group counselling on self-concept and peer relationships of high school students with learning difficulties. *Master's thesis from Zhejiang Normal University*.
- Liu, Z. H. (2017). The impact of school atmosphere on middle school students learning engagement: the mediating role of school happiness. *Special Education in China*, (4), 85-90.
- Lu, C. M., Lu, B., Luo, D., Meng, Y. M., & Tang, H. Y. (2020). A Study on the Relationship between School Belongingness and Interpersonal Harmony among University Students. *Wen Yuan*, (1), 231-232.
- Qin, C. Y. (2022). The impact of parental upbringing and school belongingness on loneliness among middle school students. *Growth*, (8), 58-60.
- Raboteg-Saric, Z., & Sakic, M. (2014). Relationships between parenting styles and friendship quality and self-esteem, life satisfaction, and happiness in adolescents. *Applied Research in Quality of Life*, 9(3), 749-765.
- Rao, Y., & Jiang, D. W. (2022). The mediating role of school belongingness in the perception of teacher care behavior and learning engagement among vocational nursing students. *General Nursing*, 20(30), 4187-4192.

- Ren, P., Zhang, Y. Y., Qin, X. N., Guo, X. L., & Zhao, Q. (2017). The impact of middle school students' belief in a just world on their academic achievement: the mediating effect of perceived teacher support and class justice. *Psychological Development and Education*, 33(2), 191-197.
- Song, S. K. (2017). A study on the impact of peer relationships on school belongingness among senior elementary school students. *Master's thesis from Nanchang University*.
- Stefansson, K. K., Gestsdottir, S., Birgisdottir, F., & Lerner, R. M. (2018). School engagement and intentional self-regulation: a reciprocal relation in adolescence. *Journal of Adolescence*, (64), 23-33.
- Tian, Y. Y., An, L. J., Guo, Q. Q., & Dai, K. H. (2018). The psychological health and school belongingness adaptation status of ethnic minority university students in mainland universities. *Science and Education Guide*, (3), 165-167.
- Vannatta, K., Gartstein, M. A., Zeller, M., & Noll, R. B. (2009). Peer acceptance and social behavior during childhood and adolescence: How vital are appearance, athleticism, and academic competence? *International Journal of Behavioral Development*, 33(4), 303-311.
- Wen, L. Y., Zhu, L. J., Liu, C., Su, S. S., Jin, Y. L., & Chang, W. W. (2023). The relationship between professional identity, school belongingness, and mental health among university students in a medical college in Anhui Province. *Journal of Shenyang Medical College*, 25(1), 58-64.
- Williams, B. (2018). A Longitudinal Study: Examining the Effect of Campus Racial Climate and Belongingness on First-Year African American University Students' Depressive Symptoms. *Auburn University Dissertation*.
- Wu, M., Song, W. Q., & Liang, L. C. (2023). Types of peer aggression and school adaptation among rural primary school students: based on latent profile analysis. *Journal of East China Normal University: Education Science Edition*, 41(1), 40-49.
- Wu, Q., Du, Q. W., & Yin, T. Z. (2018). The impact of university students' perceived school belongingness on life satisfaction - the chain mediating effect of interpersonal relationship distress and self-esteem. *Journal of Wuhan Jiaotong Vocational College*, 20(4), 61-67.
- Xiao, Z. Y., Wang, D., & Zhang, W. N. (2019). A study on the correlation between university students' perceived school belongingness, self-efficacy, and academic level. *The Think Tank Era*, (17), 283-284.
- Xie, J. S., & Mei, L. (2022). The relationship between perceived campus atmosphere and victimization of bullying among middle school students: the mediating role of student involvement. Chinese. *Journal of Clinical Psychology*, 26(1), 113-117.
- Xu, Y. Y., & Deng, H. H. (2016). The role of high school students sense of stress in the relationship between school atmosphere and depression. *Modern Preventive Medicine*, 43(9), 1630-1633.
- Yang, M. M. (2020). A study on the relationship between interpersonal relationships, school

- belongingness, and college adaptation in college dormitories. *Higher Education Forum*, (7), 112-115.
- Yang, M. Q., & Shi, N. X. (2018). Identity theory examines the urban social integration and identity construction of migrant children from ethnic minorities. *Research on Ethnic Education*, (3), 101-107.
- Yang, Y. L., Zhang, Y. Q., & Shen, J. (2018). A study on the impact of the indoor environment on subjective well-being, school belongingness, and interpersonal communication among university students. *Ergonomics*, 24(4), 48-53.
- Ye, J. W. (2019). Research on the Impact of Enhancing Perceived Teacher Emotional Support on Academic Self-efficacy and English Academic Performance of Art and Sports Students. *Master's thesis from Sichuan Normal University*.
- Yu, L. (2017). The relationship between loneliness and emotional behavior issues in the school atmosphere of left-behind children in Zhaoqing. *Chinese School Health*, 38(6), 942-945.
- Yu, R., & Singh, K. (2018). Teacher support, instructional practices, student motivation, and mathematics achievement in high school. *The Journal of Educational Research*, 111(1), 81-94.
- Zhang, C. (2020). The impact and inspiration of teacher-student relationship on students' collaborative problem-solving ability and school belongingness. *Basic Education Research*, (3), 80-83.
- Zhang, J. J., Guan, D. X., Zhao, X. M., Cui, S., & Si, J. W. (2018). The relationship between teacher support, mathematical self-efficacy, and mathematical achievement perceived by primary school children: a moderated mediation model. *Psychological and Behavioral Studies*, (5), 644-651.
- Zhang, X. L. (2012). A study on the relationship between school belongingness, self-efficacy, and academic performance among middle school students. *Master's thesis from Shaanxi Normal University*.
- Zhang, X. W., Quan, C. Z., & Li, Z. M. (2021). Research on Campus Integration of Retired and Returned University Students. *Journal of Huizhou University*, 41(4), 117-122.
- Zhao, M. (2020). A survey on the belongingness among open education learners in learning group strategies - using Changzhou Open University as an example. *Journal of Higher Continuing Education*, 33(3), 74-79.
- Zhu, H. D., Li, X., & Yang, F. L. (2017). The relationship between perceived school atmosphere and mental health among middle school students: the moderating effect of family atmosphere. *Journal of the Education College of the Xinjiang Production and Construction Corps*, 27(6), 39-44.