

A Study of the Relationship between Learning Motivation and Student Engagement among Students at G College in Zhengzhou, Henan Province, China

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Abstract: This study aimed to examine the relationship between learning motivation and student engagement among students at G College in Zhengzhou, Henan Province, China, and to analyze the differences in these two variables across different background variables. A quantitative research method was adopted. The participants were undergraduate students at G College in Zhengzhou, and 370 valid questionnaires were collected. The findings indicated that both learning motivation and student engagement were at a moderate level overall. Certain differences were found in learning motivation and student engagement across age and academic discipline, whereas no significant differences were found by gender or class leadership status. In addition, learning motivation was significantly and positively correlated with student engagement. The study showed that improving students' learning motivation helped enhance their engagement in the learning process. It was recommended that the college further optimize course design, strengthen classroom interaction, attach importance to the cultivation of students' intrinsic interest in learning, and provide differentiated learning support for different student groups to promote sustained engagement and improve learning quality.

Keywords: Learning motivation, Student Engagement, G College, Zhengzhou, Henan Province

1. Introduction

Against the continuing transformation of global higher education and the advancement of educational modernization, learning motivation and student engagement have become important indicators of higher education quality. Learning motivation is generally understood as the internal force driving students' learning behavior, while student engagement reflects their behavioral, emotional, and cognitive involvement in the learning process (Fredricks et al., 2004). Together, these two constructs influence learning outcomes, satisfaction, and academic persistence (Schaufeli et al., 2002). In China, with the improvement of higher education quality evaluation and the shift in talent cultivation goals, enhancing university students' learning motivation and classroom engagement has become an important research issue.

At the international level, scholars have argued that high quality learning

experiences depend on intrinsic motivation and active participation (Reeve, 2012). Self Determination Theory suggests that when students' needs for autonomy, competence, and relatedness are satisfied, their intrinsic motivation is strengthened (Deci & Ryan, 2017). Student engagement theory further emphasizes students' behavioral, emotional, and cognitive investment in learning, which is closely associated with motivation and academic performance (Schaufeli et al., 2002).

In China's higher education context, growing attention has been paid to students' learning motivation and engagement. Under the student-centered educational approach, teaching methods and classroom atmosphere are seen as key factors shaping both variables (Liu & Liang, 2021). In application oriented undergraduate institutions, insufficient motivation and low classroom engagement have become important barriers to teaching quality improvement. As a

representative private undergraduate institution, G College in Zhengzhou has promoted curriculum reform and classroom innovation in recent years, yet differences in students' learning motivation and engagement remain evident. Therefore, this study examined the relationship between learning motivation and student engagement to provide evidence for improving classroom teaching and student development in higher education.

Research Objectives

This study aimed to achieve the following specific objectives.

1. To examine the status of learning motivation among students at G College in Zhengzhou.
2. To examine the status of student engagement among students at G College in Zhengzhou.
3. To analyze whether there were significant differences in learning motivation among students with different demographic background variables, including gender, age, academic discipline, and class leadership status.
4. To analyze whether there were significant differences in student engagement among students with different demographic background variables, including gender, age, academic discipline, and class leadership status.
5. To examine the relationship between learning motivation and student engagement.

Literature Review

The relationship between learning motivation and student engagement has become a core issue in higher education research in recent years. Many empirical studies in China and other countries have consistently shown that a high level of learning motivation can significantly promote students' behavioral engagement, emotional experience, and cognitive processing in the classroom, and that the quality of motivation, such as intrinsic motivation versus extrinsic motivation, plays a key role in determining the depth of engagement.

International research first revealed the internal relationship between these two variables within the framework of Self Determination Theory. Deci and Ryan (2017) pointed out that

when students' three basic psychological needs, namely autonomy, competence, and relatedness, were satisfied, they were more likely to develop intrinsic motivation and, in turn, demonstrate active learning engagement. The meta-analysis conducted by Howard et al. (2021) showed that intrinsic motivation significantly predicted students' behavioral engagement, emotional engagement, and cognitive engagement, whereas extrinsic motivation had a weaker association with engagement. This finding provided strong evidence for the positive relationship between learning motivation and student engagement.

In classroom settings, Reeve (2018) further pointed out that teachers' autonomy support could enhance students' intrinsic motivation, and that the improvement of intrinsic motivation would in turn lead to higher levels of engagement behavior, such as classroom interaction, collaborative learning, and the use of deep learning strategies. Jang et al. (2022) also found that in university classrooms, students with higher quality motivation were more likely to seek challenges actively, engage in discussion, and demonstrate a high level of cognitive engagement.

The perspective of positive psychology has also supported the relationship between learning motivation and student engagement. The student engagement model proposed by Schaufeli et al. (2002), including vigor, dedication, and absorption, showed that students with strong intrinsic motivation were more likely to remain energetic during the learning process and demonstrate immersive learning experiences. Subsequent studies further pointed out that motivation could improve academic performance and reduce learning burnout by enhancing students' level of student engagement (Salanova et al., 2019).

In the context of Chinese higher education, the relationship between learning motivation and student engagement has also been widely supported. Zhao and Zhou (2021) found that the stronger the learning motivation of undergraduate students, the more likely they were to participate in classroom discussions, remain focused during classroom tasks, and demonstrate persistence when facing academic challenges. Li and Luo (2022) further pointed out that intrinsic motivation

could significantly predict the level of emotional engagement, including learning interest, classroom enjoyment, and sense of belonging.

In addition, Chinese studies have particularly emphasized the mediating role of teacher support in the relationship involving learning motivation. Liu and Chung (2021) found that autonomy support not only directly enhanced learning motivation, but also indirectly increased student engagement by strengthening students' perceptions of competence and relatedness. Zhang and Liu (2023), in their study of samples from private undergraduate institutions, found that learning motivation indirectly influenced students' classroom participation and learning well-being by promoting deep learning strategies and positive emotional experiences.

Overall, studies in China and other countries have generally supported a significant positive relationship between learning motivation and student engagement. Intrinsic motivation can enhance students' learning persistence, emotional experience, and deep processing, whereas extrinsic motivation is more closely related to surface level participation. Learning motivation is not only an important predictor of students' behavioral engagement but also influences student engagement by strengthening emotional and cognitive experience. Based on this research foundation, this study examined how the learning motivation of students at G College in Zhengzhou influenced their student engagement, thereby revealing the mechanism between these two variables in the context of a private undergraduate institution.

In recent years, as Chinese higher education has entered a stage of quality-oriented development, learning motivation and student engagement have gradually become major areas of focus in research on teaching reform and student development in universities. Overall, Chinese scholars have produced relatively rich findings on this topic, but there are still problems such as insufficient theoretical depth, limited research methods, and inadequate contextual adaptation. Therefore, it is necessary to provide a systematic review from an integrated perspective.

First, in terms of research themes, domestic studies have generally confirmed a

significant positive relationship between learning motivation and student engagement. Most studies have emphasized that intrinsic motivation has stronger predictive power for university students' behavioral engagement, emotional engagement, and cognitive engagement (Zhao & Zhou, 2021; Li & Luo, 2022). These empirical results are consistent with international research trends and indicate that learning motivation is an important psychological foundation for improving learning engagement and classroom performance. However, domestic studies have focused more on the outcome effect of learning motivation and have paid less attention to the formation mechanism of motivation, such as how factors including family background, course characteristics, and teachers' instructional styles shape student's types of motivation.

Second, in terms of research perspective, domestic studies have mostly examined factors such as classroom environment, teacher support, and learning strategies, emphasizing the importance of the learning environment for student engagement. Studies have generally pointed out that teacher student interaction, the quality of classroom feedback, and curriculum design are core factors in promoting student engagement (Wang & Li, 2020). In contrast, research on deeper psychological processes, such as emotional engagement and cognitive engagement, has remained relatively limited. This has made domestic research somewhat insufficient in theoretical depth, especially in explaining the psychological mechanisms underlying engagement.

Third, from the perspective of research instruments and measurement, domestic studies have extensively adopted scales based on the three-dimensional model of Fredricks et al. (2004) or the student engagement model of Schaufeli et al. (2002). Although these instruments have shown good reliability and validity in domestic samples, researchers have mostly relied on translated or revised versions of the scales, and there has been a lack of localized measurement tools developed with Chinese culture and teaching environments in mind. For example, in Chinese classroom culture, students are generally less likely to speak actively in class but may demonstrate a high level of

student engagement after class. This characteristic has not been fully reflected in existing scales (Huang & Wang, 2021). Therefore, the effectiveness of engagement measurement in local contexts still needs to be further improved.

Fourth, in terms of research methods, most domestic studies have adopted cross sectional questionnaire surveys and have mainly focused on correlation analysis among variables, while lacking longitudinal tracking, experimental intervention, or mixed methods research. As a result, it has been difficult to determine the causal path through which learning motivation affects engagement, and it has also been difficult to reveal the dynamic changes in engagement during the learning development process. In addition, Chinese studies have paid relatively little attention to differences among groups, such as students in private universities, arts related majors, or vocational programs, which has limited the generalizability of research findings to some extent.

Finally, in terms of research context, an increasing number of studies in recent years have focused on the characteristics of learning motivation and engagement among students in private undergraduate institutions, local universities, and higher vocational colleges. For example, Zhang and Liu (2023) found that Chinese private university students' classroom participation and learning motivation were significantly influenced by teacher support and teaching style. Liu and Chung (2021) also pointed out that differences in cultural background and educational resources influenced students' perceptions of autonomy and competence to a certain extent. However, research targeting different groups of colleges and institutions has still been insufficient, and differences across regions and institution types have not been fully examined.

In summary, research on learning motivation and student engagement in the context of Chinese higher education has provided an important foundation for understanding university students' learning behavior. However, there are still problems such as insufficient theoretical depth, limited research methods, lack of localized instruments, and inadequate attention to group

differences. Based on this, this study focused on students at G College in Zhengzhou and, by integrating Self Determination Theory and Student Engagement Theory, examined the relationship between learning motivation and student engagement. The aim was to further enrich localized research and provide empirical support for teaching improvement in local higher education institutions.

2. Materials and Methods

The population of this study consisted of undergraduate students at G College in Zhengzhou, with a particular focus on the relationship between learning motivation and student engagement among students from different colleges. According to the latest data provided by the Academic Affairs Office, G College had a total of 10,338 full time undergraduate students. According to the sample size table developed by Krejcie and Morgan (1970), when the population consisted of 10,338 undergraduate students, the recommended minimum sample size was approximately 373. In this study, 373 questionnaires were distributed, and 370 valid questionnaires were finally collected, with an effective response rate of 99.20%. The overall Cronbach's alpha coefficient of the Learning Motivation Scale was 0.928. Among its dimensions, the alpha coefficient for Intrinsic Motivation was 0.91, and the alpha coefficient for Extrinsic Motivation was 0.88. Both values reached an excellent level, indicating high internal consistency of the scale. The overall Cronbach's alpha coefficient of the Student Engagement Scale was 0.934. Among its three dimensions, the alpha coefficient for Vigor was 0.89, the alpha coefficient for Dedication was 0.87, and the alpha coefficient for Absorption was 0.85. All values were above 0.80 and reached a good level.

The KMO value of the Learning Motivation Scale in this study was 0.846, and the KMO value of the Student Engagement Scale was 0.829. Both values fell between 0.80 and 0.90, indicating that the scales were suitable for factor analysis.

3. Results

A total of 370 valid questionnaires were

autonomous motivation promotes more sustained engagement and deeper learning experience (Ryan & Deci, 2017; Howard et al., 2021).

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Authors' Biography



The researcher currently studies in MEA Program, Graduate School, Stamford International University, her research interest is in the fields of educational administration, school management and educational leadership.