

Does Diversified Teaching Methods Help College Students' Psychological Acceptance?

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Abstract: In higher education, different teaching methods play an important role in students' learning outcomes and successful psychological acceptance. This study explores the impact of diverse teaching methods on students' psychological acceptance through questionnaire survey analysis of university students. Research has found that diversified teaching methods can promote students' interest, enthusiasm, and participation in learning, thereby having a positive impact on their mental health, reducing negative psychological states such as depression and anxiety, and helping students deepen their understanding and application of knowledge. In addition, the differences in teaching methods among different students also need to be considered.

Keywords: Teaching method; Student psychology; Diversification; Higher education; Learning outcomes

1 Introduction

With the development and reform of higher education, teaching methods are also constantly changing and innovating. From traditional face-to-face classes to online teaching, blended learning, case teaching, flipped classrooms, etc., different teaching methods play an important role in students' learning effectiveness and psychological success. Traditional teaching methods, such as lecture based teaching, can no longer fully meet students' learning needs (Wong, 2023)^[1]. In order to better meet the learning needs of students, more and more universities are adopting diversified teaching methods (Gao, 2022)^[2]. Especially during the COVID-19 epidemic, online teaching, group discussion, case analysis, practical teaching and other teaching methods have become an important form of college education.

The psychological acceptance of teaching methods by college students is of great significance in higher education. On the one hand, students' psychological acceptance of teaching methods directly affects their learning outcomes and academic achievements. When students feel comfortable and satisfied with the teaching method, they are more likely to focus on classroom content, actively participate in discussions and interactions, and thus improve learning outcomes. On the other hand, students' psychological acceptance of teaching methods is closely related to their learning motivation and interest. When students find the teaching method boring, boring, or difficult to understand, their interest and motivation in learning may decrease, and their absorption and understanding of the learning content may also be affected. However, whether

diverse teaching methods contribute to the psychological acceptance of college students still needs to be further explored, which is also the focus of this article.

This study explores the impact of diverse teaching methods on students' psychological acceptance through questionnaire surveys and case analysis of university students, using various research methods such as literature review, survey questionnaires, and interviews. The purpose of this study is to answer the following question: Does diversified teaching methods contribute to the psychological acceptance of college students? Do different student groups have different acceptance of different teaching methods? On this basis, this study proposes some suggestions for the transformation of teaching methods in universities, hoping to provide some reference for teaching in universities.

2 Literature Review

Diversified teaching methods refer to a student-centered teaching model that emphasizes student autonomy, cooperation, exploration, and innovation. Diversified teaching modes mainly include online and offline forms (Trullàs et al., 2022)^[3]. The online form consists of two methods: online video learning and online teaching. The online teaching mode has evolved from the epidemic factors, and due to the uncertainty and certain limitations of the offline environment, many teaching work has shifted from offline to online during the epidemic. After the epidemic, although offline teaching can continue, the many benefits of online teaching allow it to be retained in daily teaching activities. Online teaching can effectively break the limitations of geographical factors, and video methods can also break the limitations of time and space (Hidayat et al., 2020)^[4]. However, there are also certain shortcomings in the form of online teaching, such as insufficient control of the classroom by teachers and the inability to observe students' classroom feedback in real-time. During video teaching, it is even more difficult for teachers to ensure their control over students. Therefore, it can be said that the freedom and convenience of teaching are often inversely proportional to the ability to control the classroom. Offline teaching mainly includes traditional teaching methods, group discussions, case studies, classroom student presentations, and practical teaching. Compared to traditional offline teaching, group discussions, case studies, and classroom student presentations can fully stimulate students' classroom enthusiasm and enable them to fully participate in the classroom. The practical teaching method can more vividly demonstrate the application scenarios of theoretical knowledge to students by utilizing real-life affairs.

Diversified teaching methods are a supplement and improvement to traditional teaching methods. Diversified teaching methods have many advantages: firstly, diversified teaching methods can promote students' participation. In traditional teaching methods, students are passive recipients of knowledge, making it difficult for them to exert their subjective initiative (Kara et al., 2022)^[5]. Diversified teaching methods place greater emphasis on students' participation, promote their subjective initiative in learning, and cultivate their abilities in teamwork and communication. Secondly, diversified teaching methods can increase students' interest in learning. Due to the diverse teaching methods that emphasize student participation, the learning process is no longer dull and boring (Devine and Ash, 2022)^[6]. The promotion of interest and enthusiasm in learning will make students more focused and energetic, which is beneficial for improving learning efficiency. Thirdly, diversified teaching methods can improve

students' academic level. Compared to traditional teaching methods, diversified teaching methods focus on cultivating students' comprehensive qualities, expanding their horizons, enhancing their ability to discover and solve problems, and cultivating their independent thinking and innovation abilities through practical operations and case analysis (Tsegay et al., 2022) [7]. Fourthly, diversified teaching methods can also reduce negative psychological states such as depression and anxiety, helping students better adapt to learning and life pressures (Gonzales et al., 2022) [8]. For example, research has found that teaching methods such as case teaching and group discussions have a positive impact on students' mental health and self-experience while improving their learning outcomes (Aldrich et al., 2019; Zhang et al., 2020) [9-10].

However, there are also some challenges and limitations to diversified teaching methods. For example, the diversification of teaching methods may increase the workload and training costs of teachers, and the implementation of different teaching methods requires prerequisites such as basic equipment and technical support. At the same time, different subject areas and learning stages also require targeted selection of suitable teaching methods to ensure students' learning effectiveness and mental health. Therefore, in the process of designing and implementing diversified teaching methods, it is necessary to fully consider the influence of various factors and seek the best strategies and methods.

3. Data Collection and Verification

3.1 Questionnaire Design

In order to gain a deeper understanding of students' psychological states under different teaching methods, this study compared multiple teaching methods (face-to-face, online, blended learning, case teaching, group discussion) through an online survey questionnaire. Participants were surveyed using a self-made questionnaire. The questionnaire consists of two parts. The first part is about personal basic information, including gender, age, grade, major, etc; The second part is a questionnaire on the psychological impact of diversified teaching methods, mainly including teaching methods, learning interests, mental health, etc. (Table 1, Table 2, Table 3).

Tab. 1 Questions about teaching methods

Number	Item	Options
T1	Have you ever received traditional teaching methods?	(Yes/No)
T2	Have you ever received multimedia teaching methods?	(Yes/No)
T3	Have you ever received interactive teaching methods?	(Yes/No)
T4	Which teaching method do you prefer?	(Traditional teaching/multimedia teaching/interactive teaching/no preference)

Tab. 2 Questions about learning interests

Number	Item	Options
L1	Which teaching method do you have the strongest interest in learning?	(Traditional teaching/multimedia teaching/interactive teaching/no preference)

L2	Which teaching method do you think is most helpful in enhancing your interest in learning?	(Traditional teaching/multimedia teaching/interactive teaching/no preference)
L3	Which teaching method do you think has the greatest impact on improving your learning motivation?	(Traditional teaching/multimedia teaching/interactive teaching/no preference)

Tab. 3 Questions about mental health

Number	Item	Options
P1	Have you ever felt too much pressure under traditional teaching methods?	(Yes/No)
P2	Have you ever felt too much pressure under the multimedia teaching method?	(Yes/No)
P3	Have you ever felt excessive pressure under interactive teaching methods?	(Yes/No)
P4	Which teaching method makes it easier for you to maintain your energy?	(Traditional teaching/multimedia teaching/interactive teaching/no difference)

3.2 Data Collection and Descriptive Statistics

The survey was mainly distributed to three Chinese universities, one being a double first-class university, one being a first-class discipline construction university, and one being a provincial ordinary university. The questionnaire was distributed to a total of 550 college students, and a total of 500 valid data were collected, of which 48% were male and 52% were female (Table 4).

Tab. 4 Descriptive Statistics of Questionnaire Samples

Gender		Grade		Major	
Male	240	Class 2020	102	Science, Engineering, Agriculture, and Medicine	138
Female	260	Class 2021	123	Economic, Management, Legal, and Education	216
		Class 2022	180	History and Philosophy	96
		Class 2023	95	Others	50

3.3 Questionnaire reliability test

From Table 5, it can be seen that the reliability coefficient value is 0.961, which is greater than 0.9, indicating that the reliability quality of the research data is very high. For 'items deleted' α Coefficient "means that after any item is deleted, the reliability coefficient does not show a significant increase, indicating that the item should not be deleted.

For the "CITC value", the CITC values of the analysis items are all greater than 0.4, indicating a good correlation between the analysis items and a good level of reliability. In summary, the reliability coefficient value of the research data is higher than 0.9, indicating that the data has high reliability quality and can be used for further analysis.

Tab. 5 Cronbach reliability analysis

Number	CITC	Item deleted Cronbach α	Cronbach α
T1	0.816	0.957	
T2	0.874	0.955	
T3	0.858	0.955	
T4	0.756	0.959	
L1	0.777	0.958	
L2	0.801	0.957	0.961
L3	0.843	0.956	
L4	0.757	0.959	
P1	0.838	0.956	
P2	0.807	0.957	
P3	0.814	0.957	

Data source: Calculated based on Stata.

3.4 Questionnaire validity testing

Validity validation was conducted using KMO and Bartlett tests. From Table 6, it can be seen that the KMO value is 0.896, the KMO value is greater than 0.8, and the P value is 0. The research data is very suitable for extracting information.

Tab. 6 KMO and Bartlett's test

	KMO	0.896
	Approximate chi square	1223.895
Bartlett sphericity test	df	55
	P -Value	0.000

Data source: Calculated based on Stata.

4 Questionnaire analysis

4.1 Differences in the acceptance of teaching methods among different student groups

We found that there are differences in the acceptance of diverse teaching methods among different student groups. 97% of students have received traditional teaching methods; 100% of students have received multimedia teaching methods; 42% of students have received interactive teaching methods. Among the three teaching methods, 61% of students prefer interactive teaching, while 36% prefer multimedia teaching; Only 3% of students prefer traditional teaching methods. In this situation, it is necessary to meet the personalized needs of students as much as possible and provide different teaching methods to better improve their learning outcomes.

4.2 The impact of diversified teaching methods on learning interest

The questionnaire results indicate that diversified teaching methods can help improve students' interest in learning. 50% of students believe that multimedia teaching methods are helpful in

enhancing learning interest, while 44% of students believe that interactive teaching can stimulate learning interest. Only 6% of students are interested in traditional teaching methods.

4.3 The impact of diversified teaching methods on mental health

Diversified teaching methods can also help improve students' mental health levels. 63% of students believe that under traditional teaching methods, they feel too much pressure. And this proportion decreased to 22% and 14% respectively in the case of multimedia teaching and interactive teaching. In addition, 55% of students believe that interactive teaching methods are easier to maintain energy, which is higher than multimedia teaching (37%) and traditional teaching (8%).

5 Conclusion

Firstly, diversified teaching methods can help stimulate students' interest and motivation in learning. When facing traditional teaching methods, students often feel bored and bored, and lack the motivation to actively learn. Diversified teaching methods, on the other hand, place greater emphasis on students' autonomy, practice, and cooperation, which can better stimulate their curiosity and exploration desire, and enhance their enthusiasm and initiative for learning.

Secondly, diversified teaching methods can meet the needs and backgrounds of different students. In the field of education, there are significant individual differences among students in terms of professional direction, interests, cultural background, etc. Therefore, different teaching methods should be selectively selected to meet the needs and backgrounds of various students. For example, incorporating activities such as scenario simulation and group discussions into the teaching process can better meet students' communication and cooperation needs.

Thirdly, diversified teaching methods require teachers to possess corresponding teaching abilities and skills. Under diversified teaching methods, teachers need to fully utilize modern technological means and teaching media to enhance students' participation and understanding. In addition, teachers also need to have strong teaching design skills, and flexibly use different teaching methods according to different teaching needs and situations.

6 Outlook

This study found through a questionnaire survey of college students that diversified teaching methods can help improve students' learning interest, participation, and mental health level, reduce negative psychological states such as depression and anxiety, and help students deepen their understanding and application of knowledge. Therefore, in higher education, diversified teaching methods should be fully utilized to meet the needs and backgrounds of students to the greatest extent, promote their learning outcomes and mental health, and improve the cultivation of teaching staff and innovation in teaching methods. In addition, the differences in teaching methods among different student groups also need to be considered to promote the development of higher education through different teaching methods.

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