

THE INFLUENCING FACTORS OF CLASSROOM PARTICIPATION IN BLENDED IDEOLOGICAL AND POLITICAL EDUCATION AT SHANDONG UNIVERSITY OF ENGINEERING AND VOCATIONAL TECHNOLOGY

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Abstract: Whether students' effective participation in university students' ideological and political education is an important measurement index of blended teaching classrooms. Exploring the classroom participation of university students' ideological and political education and its influencing factors under the blended teaching mode can provide a reference basis and value for the wide implementation of blended teaching and the teaching effect. The objectives of this study are: 1) to explore whether learning activities affect the classroom engagement of university students' ideological and political education in blended teaching; 2) to explore whether self-efficacy affects the classroom engagement of university students' ideological and political education in blended teaching; and 3) to explore whether learning initiative affects the classroom engagement of university students' ideological and political education in blended teaching.

This study adopted the quantitative method. Students of Shandong University of Engineering and Vocational Technology were the subjects. A total of 400 questionnaires were distributed, and 344 valid questionnaires were collected, with a validity rate of 86.0%. This paper found that: 1) learning activities have a significant positive effect on the participation of university students in ideological and political education blended teaching classrooms; 2) self-efficacy has a significant positive effect on the participation of university students in ideological and political education blended teaching classrooms; and 3) learning initiative has a significant positive effect on the participation of university students in ideological and political education blended teaching classrooms. For recommendations, the participation of university students in ideological and political education blended teaching classrooms in Shandong University of Engineering and Vocational Technology should focus on the following aspects: 1) designing diversified learning activities; 2) enhancing self-efficacy; and 3) stimulating students' learning initiative.

Keywords: Influencing Factors, Classroom Participation, Blended Ideological and Political Education, Shandong University of Engineering and Vocational Technology

Introduction

Ideological and political education is based on the fundamental task of establishing moral values and based on the basic theory of Marxism and the latest achievements of Marxism, the basic connotation of the core qualities of the ideological and political discipline has been determined, to serve the task of cultivating high-quality laborers and technically skilled talents (Gao, 2021). At the same time, with the advancement of the artificial intelligence era, students' demand for teaching resources and content has changed dramatically, in addition to the classroom teaching of theoretical courses, extracurricular ideological and political practice platform accordingly due to the requirements of the overall development of the students is important needs, therefore, the Internet, the new media era of blended teaching mode came into being, and with the application of the ideological and political course of study in the teaching (Li, 2018). Blended teaching through the "online + offline" form to realize the integration of modern technology and traditional classroom, not only fully embodies the "students as the main body, teacher-led" teaching concept, but also allows learners to effectively participate in the classroom (Li et al., 2021).

The integration of blended teaching fully embodies the teaching concept of "student-led and teacher-led", and allows learners to participate effectively in the classroom, making the classroom "live" and students "move", which can meet the needs of ideological and political education of university students in the background of informatization (Li, 2018; Li et al., 2021). The effect and evaluation of blended teaching have always been the focus of scholars' research, and blended teaching mainly focuses on three aspects: learning effect and cognitive level, interaction and social knowledge construction, and emotional attitude. In the learning effect of blended teaching, exploring the students' classroom participation and influencing factors under the blended teaching mode is an important aspect of the research on education informatization in the information age (Liu et al., 2021). Whether students' participation is effective in the ideological and political education of university students is an important measurement index of blended teaching classrooms. In this context, exploring the classroom participation level and its influencing factors on university students' ideological and political education under the blended teaching mode can provide a reference basis and value for the wide implementation of blended teaching and the teaching effect. Taking Shandong University of Engineering and Vocational Technology as the research object, it is significant to explore the factors influencing classroom participation in the blended teaching of ideological and political education of university students (Wang, 2021).

Blended teaching is a mode that gives full play to the advantages of online teaching and traditional teaching, with numerous resource platforms and rich learning systems. With scholars' in-depth exploration and research on blended teaching, its theory and practice have been enriched, and the integration of blended teaching into the ideological and political education of university students has

become more and more common and diversified (Li et al., 2021; Liu et al., 2021; Wang, 2021). However, the targeted exploration of blended teaching in ideological and political courses is still relatively rare.

As a public course to be studied by all majors, and as the main course for students to receive systematic ideological and political education, it is necessary to explore a teaching method that is more suitable for the needs of society and students. Given the actual situation of teachers and students, both online and offline methods have advantages and disadvantages, and the blended teaching method is a good choice. Through the research of this paper, we try to find a more effective teaching method for teachers and can find a more convenient and effective learning method for students. Through the research of this paper, we explore the teaching methods concerning the ideological and political courses of open universities and find a unique teaching method and approach that meets the students' actual situation through the research of the blended teaching method that combines online and offline (Yu, 2022).

It is conducive to the teaching mode of ideological and political courses in diversified secondary vocational schools. The blended teaching mode breaks through the limited nature of the time and space of the traditional teaching mode, which is conducive to the optimal allocation of educational and teaching resources. Expanding teaching activities, blended teaching activities generally include online learning before class, offline learning in class, and online and offline practice and testing. Strengthen the timeliness of teacher-student communication (Li et al., 2021; Liu et al., 2021). Facilitates teacher-student communication, brings teachers and students closer, and creates a harmonious and equal educational atmosphere. Favorable to the relevant curriculum requirements of ideological and political classes. Blended teaching in ideological and political prompts teachers of ideological and political classes to change their previous teaching methods and ideas, enrich their teaching methods, constantly optimize their teaching design, effectively organize classroom teaching, give full play to the leading role of teachers and the subjectivity of students, so that online and offline teaching and learning can be seamlessly integrated, and then fully implement the requirements of the new ideological and political class standards (Li, 2018).

Research Objectives

(1) To explore whether learning activities affect university students' ideological and political education blended teaching classroom participation.

(2) To explore whether self-efficacy affects the participation of university students in ideological and political education blended teaching classrooms.

(3) To explore whether learning initiative affects the participation of university students in ideological and political education blended teaching classrooms.

Literatures Review

Blended teaching

Blended teaching is a kind of teaching mode centered on students' learning, combining online learning and offline classroom teaching, and is an integrated model of the traditional classroom and the new age online learning platform. Blended teaching emphasizes focusing on the material, focusing on learning, and valuing the cultivation of students' responsibility and independence (Chen, 2022). This teaching mode has three characteristics: First, learning activities are carried out online, controlling the time, place, and way of learning, which can also be added to control the progress. Secondly, a learning activity takes place under the teacher, i.e. in a real classroom rather than at home. Third, it combines the individual's learning status in a particular course to obtain an integrated learning experience (Chen, 2022; Han, 2019). The teaching mode highlights comprehensiveness, student training focuses on development, the teaching process emphasizes wholeness, and teaching evaluation includes duality. Blended teaching is a teaching mode developed in the era, which plays an important role in exploring students' learning potential and improving learning efficiency (Han, 2019). Therefore, ideological and political teachers should be actively integrated into daily teaching, based on the needs of student development and progress, as well as the dual consideration of curriculum standards, reasonable and scientific design of blended teaching cases, assessment standards, and other related aspects.

Learning activities

The design and implementation of learning activities are directly related to the degree of student participation in the blended learning environment (Yildiz Durak, 2018). The diversity and interest of learning activities play a significant role in enhancing students' participation. Research has shown that diverse learning activities, such as project-based learning, case studies, group discussions, and role-playing, can stimulate students' interest and initiative in learning. The design of online learning activities is crucial for student engagement in blended learning (Kuh, 2019). Effective online learning activities should be interactive and collaborative. Interactive online activities, such as real-time discussions, online quizzes, and virtual experiments, can promote communication and collaboration between students and teachers, and between students and students. Personalized learning activity design is also an important factor that influences student engagement. In a blended learning environment, learning activities can be personalized according to students' individual interests and learning progress (Hagger & Hamilton, 2018). Diversified, interactive, and personalized learning activities can significantly enhance students' engagement and learning effects. With the continuous progress of educational technology and the increasing popularity of blended learning, the design of learning activities will become an important means to enhance student engagement.

Self-efficacy

Self-efficacy is a key concept in educational psychology that refers to an individual's

confidence and belief in his or her ability to complete a given task (Wang et al., 2018). In a blended learning environment, self-efficacy has a significant impact on student engagement, and many studies have shown that high levels of self-efficacy can significantly increase student engagement and academic achievement. Blended learning models combine the advantages of face-to-face instruction and online learning to provide students with a more flexible and personalized learning experience. It was found that students with high self-efficacy demonstrated higher levels of engagement when faced with the autonomy and challenges of online learning (Fuentes-Tauber, 2018). Self-efficacy enhances students' ability to adapt to the online learning environment. The impact of self-efficacy on student engagement in blended learning is profound and multifaceted (Fuentes-Tauber, 2018; Wang et al., 2018). Enhancing students' self-efficacy through effective instructional design and support measures can not only increase their engagement in learning but also lay a solid foundation for their long-term academic development. Future research should continue to explore how to optimize self-efficacy development in blended learning environments to maximize student engagement and success.

Learning Initiative

Learning initiative plays a crucial role in blended learning environments and has a significant impact on student engagement. The literature suggests that learning initiative, i.e., students' willingness to actively engage in the learning process and actively seek knowledge and solve problems, is a key factor in increasing student engagement in blended learning. Blended teaching combines the advantages of traditional face-to-face instruction and online learning, which requires students to have a high level of independent learning ability and initiative (Bocconi et al., 2013). The influence of learning initiatives on student engagement in blended teaching is also reflected in feedback and self-regulation. Students with high initiative will actively seek feedback from teachers and peers during the learning process and adjust and improve their learning strategies through feedback (Canhoto & Murphy, 2016). They are better able to conduct self-assessment and reflection, and continuously optimize their learning methods and paths. It has been found that this self-regulation ability is an important guarantee of efficient learning and can significantly improve students' engagement and academic achievement. Learning initiative has a profound impact on student engagement in a blended learning environment (Bennett et al., 2016). A high level of learning initiative can significantly enhance students' independent learning ability and learning outcomes, and through active participation and active exploration, students can gain a richer and deeper learning experience in blended learning.

Methodology

This study adopted the quantitative research method. The questionnaire of this study consisted of two parts. The first part was mainly used to collect and count the basic information of the students who study ideological and political education at Shandong University of Engineering and Vocational

Technology. The second part is the measurement question items for each variable. A total of 400 questionnaires were distributed, and 344 valid questionnaires were recovered, with a validity rate of 86.0%. The research hypotheses are proposed based on the analysis:

H1: Learning activities have a significant positive effect on university students' ideological and political education blended teaching classroom participation.

H2: Self-efficacy has a significant positive effect on the participation of university students in ideological and political education blended teaching classrooms.

H3: Learning initiative has a significant positive effect on university students' ideological and political education blended teaching classroom engagement.

Results

1) Reliability analysis

In this paper, Cronbach's Alpha was used as the index of reliability of the questionnaire, and the value of Cronbach's Alpha was more than 0.8, which indicated the reliability of the scale.

Table 1: Reliability analysis

Variable	Cronbach's Alpha	N of Items
Learning Activities	0.894	5
Self-efficacy	0.873	5
Learning Initiative	0.897	5
Classroom Participation	0.874	6

The closer the value of Cronbach's Alpha is to 1, the higher the reliability of the scale and the lower the error of the measured results. The Cronbach's Alpha for learning activities, self-efficacy, learning initiative, and classroom participation were obtained through data analysis as 0.894,0.873,0.897,0.874, respectively. The internal consistency of the questionnaire was good, and the reliability of the questionnaire was high.

2). Validity analysis

KMO and Bartlett's Test of Sphericity are regarded as indicators of questionnaire validity measurement. When the value of KMO is greater than 0.6, it indicates that factor analysis can be used. The smaller the P value of Bartlett's Test of Sphericity, the higher the validity, and when the P value is less than 0.05, it indicates that it is suitable to do the factor analysis. The value of KMO is 0.942, which is greater than 0.9, and the significance of Bartlett's Test of Sphericity Probability P-value is 0.000, which is less than 0.05, so the null hypothesis is rejected, indicating that the structural validity of the questionnaire is good. See Table 2. The analysis of variance for the common factors showed that the standardized factor loadings for each question item were greater than 0.6, the commonality of the variables was greater than 60%, and some of the factor loadings reached 67.520%, which indicated that

these variables had a high degree of explanatory validity. A total of three factors were extracted from the rotated factor loading matrix table, which to some extent indicates that it is feasible and reasonable to measure the three variables in this study.

Table 2: Validity analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.942
Bartlett's Test of Sphericity	Approx. Chi-Square	4304.177
	df	210
	Sig.	0.000

3). *Correlation Analysis*

In this study, the correlation between the factors influencing the classroom participation of blended teaching in the ideological and political education of university students was tested with the help of SPSS. The results of correlation analysis show that the Pearson correlation coefficient between learning activities and university students' ideological and political education blended teaching classroom engagement is 0.476, $p=0.000<0.001$, which is significant, indicating that there is a significant positive correlation between learning activities and university students' ideological and political education blended teaching classroom engagement. The Pearson correlation coefficient of self-efficacy and university students' ideological and political education blended classroom participation is 0.489, $p=0.000<0.001$, which is significant, indicating a significant positive correlation between self-efficacy and university students' ideological and political education blended classroom participation. The Pearson's correlation coefficient between learning initiative and university students' ideological and political education blended teaching classroom participation is 0.521, $p=0.000<0.001$, which is significant, indicating that there is a significant positive correlation between learning initiative and university students' ideological and political education blended teaching classroom participation.

4). *Multiple regression*

The three variables of learning activity, self-efficacy, and learning initiative were first centered. Then, stratified regression analysis was used. The path coefficient of learning activities ($\beta=0.486$, $p=0.000<0.001$) in model 1 was significant. Model 2 with the addition of self-efficacy to model 1 showed significant path coefficients for learning activities ($\beta=0.288$, $p=0.000<0.001$), self-efficacy ($\beta=0.313$, $p=0.000<0.001$), and R Square significantly from 0.426 improved to 0.489. Model 3 after adding learning initiative to model 2, the path coefficients of learning activities ($\beta=0.188$, $p=0.000<0.001$), self-efficacy ($\beta=0.192$, $p=0.000<0.001$), learning initiative ($\beta=0.242$, $p=0.000<0.001$) had significant path coefficients, and the R Square increased significantly from 0.489 to 0.627. The stratified regression illustrates that the effect of each variable on classroom satisfaction is significant. See Table 3.

Table 3: Multiple regression

Model		Unstandardized Coefficients		t	Sig.	VIF	R Square	Adjusted R Square
		B	Std. Error					
1	(Constant)	1.991	0.182	10.914	0.000		0.426	0.422
	Learning Activities	0.486	0.049	9.996	0.000	1.000		
2	(Constant)	1.575	0.191	8.260	0.000		0.489	0.485
	Learning Activities	0.288	0.059	4.901	0.000	1.591		
	Self-efficacy	0.313	0.057	5.513	0.000	1.591		
3	(Constant)	1.496	0.187	8.010	0.000		0.627	0.621
	Learning Activities	0.188	0.062	3.033	0.000	1.850		
	Self-efficacy	0.192	0.062	3.086	0.000	1.997		
	Learning Initiative	0.242	0.056	4.346	0.000	2.062		

a Dependent Variable: Classroom Participation

Discussion

Learning activities ($\beta=0.188$, $p=0.000<0.001$) have a significant positive effect on the classroom engagement of blended teaching in university students' ideological and political education. Teachers can stimulate students' interest and increase their classroom participation by designing diversified learning activities, such as group discussion, case analysis, and interactive teaching. Positive engagement can promote students' deeper understanding and mastery of the content of ideological and political education, thus improving the overall teaching effectiveness. This research finding also reminds educational administrators and policymakers to emphasize the design and implementation of classroom activities (Hagger & Hamilton, 2018; Kuh, 2019). By providing the necessary resources and support, and encouraging teachers to innovate their teaching methods, a richer learning environment can be created for students, which enhances their learning experience and engagement (Chen, 2022; Yildiz Durak, 2018). Learning activities play a key role in the blended teaching of ideological and political education, and their significant positive influence suggests that we should pay more attention to and optimize the design and implementation of learning activities in educational practice to promote the overall development of students.

Self-efficacy ($\beta=0.192$, $p=0.000<0.001$) has a significant positive effect on the classroom engagement of blended teaching of university students' ideological and political education. The improvement of self-efficacy helps to enhance students' classroom participation. Teachers enhance students' self-efficacy by providing timely and positive feedback, setting reasonable goals, and providing necessary support during the teaching process. For example, praising students' efforts and progress and encouraging them to face challenges in the learning process can effectively enhance their self-efficacy. Increased self-efficacy has a positive impact on students' overall learning experience and academic achievement (Hagger & Hamilton, 2018; Wang et al., 2018). Students with a high sense of self-efficacy are more likely to show resilience and perseverance in learning, actively seek solutions to

problems, and thus achieve better academic results. In ideological and political education, increased self-efficacy not only helps students better understand and internalize educational content but also motivates them to practice the values and concepts they have learned in real life. Educational administrators and policymakers should pay attention to and promote the development of students' self-efficacy (Chen, 2022; Yu, 2022). In educational policy and instructional design, they should focus on creating a supportive and motivating learning environment, providing abundant learning resources and opportunities, helping students build confidence, and enhancing their motivation and engagement in learning.

Learning initiative ($\beta=0.242$, $p=0.000<0.001$) has a significant positive effect on the classroom participation of blended teaching of university students' ideological and political education. The improvement of learning initiative plays a key role in classroom participation. Teachers should focus on stimulating students' learning initiative in the teaching process and promote students' active in the learning process by setting challenging learning tasks, providing opportunities for independent learning, and guiding students to conduct independent inquiry (Bennett et al., 2016). For example, encouraging students to raise questions, and conduct group cooperation and independent research can effectively improve their learning initiative. Learning initiative not only has a positive impact on the participation in ideological and political education courses but also plays an important role in students' overall academic performance and personal development (Bennett et al., 2016; Bocconi et al., 2013; Canhoto & Murphy, 2016). Students with strong initiative usually have strong self-management ability and learning motivation and can better adapt and cope with various challenges in learning and achieve better academic performance. In ideological and political education, increased learning initiative helps students to understand the values and concepts in the curriculum, and thus show a more positive sense of social responsibility and civic awareness in real life.

Conclusions

Learning activities have a significant positive effect on university students' ideological and political education blended teaching classroom engagement, which is reflected in the fact that the regression coefficient β of learning activities is 0.188 and the p-value is 0.000, with a significance level of 0.001. This finding suggests that students' participation in learning activities can significantly increase their classroom engagement (Hagger & Hamilton, 2018; Wang et al., 2018). Engagement not only includes attendance and attention in class but also involves students' motivation in discussion, homework completion, and out-of-class learning (Kuh, 2019).

In the study of the factors influencing classroom engagement in blended teaching of ideological and political education for university students at Shandong Engineering Vocational and Technical University, it was found that self-efficacy had a significant positive effect on classroom engagement.

The regression coefficient β of self-efficacy is 0.192 and the p-value is 0.000, which is less than 0.001, indicating that this effect is statistically significant. The study shows that self-efficacy has a significant positive effect on the level of participation in the blended teaching classroom of university students' ideological and political education (Fuentes-Tauber, 2018; McGill et al., 2014). This means that students with higher self-efficacy are more likely to actively participate in the classroom and show higher levels of engagement. Self-efficacy refers to an individual's perception of his or her confidence and ability to accomplish tasks or cope with challenges in a specific situation, and students with higher self-efficacy are more confident and active when facing learning tasks.

In the study of factors influencing classroom participation in blended teaching of ideological and political education for university students at Shandong Engineering Vocational and Technical University, it was found that learning initiative has a significant positive influence on classroom participation. The regression coefficient β of learning initiative is 0.242 and the p-value is 0.000, which is less than 0.001, indicating that this effect is statistically significant. The results show that learning initiative has a significant positive effect on the level of participation in the blended teaching classroom of university students' ideological and political education (Bennett et al., 2016; Bocconi et al., 2013). This means that students with higher learning initiatives are more likely to actively participate in classroom activities and show higher levels of engagement. Learning initiative refers to students' willingness and behavior to actively explore, actively participate, and learn independently in the learning process (Canhoto & Murphy, 2016). Learning initiative plays a crucial role in the blended teaching of ideological and political education, and its significant positive influence suggests that we should pay more attention to and enhance students' learning initiative in educational practice, to promote their more active participation in the classroom, enhance their learning effect and realize their all-round development.

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