Research on the Influencing Factors of University Students' Class Engagement based on the Perspective of Organizational Development: A Case Study of Y University in China

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Abstract

Previous research has found that Organizational Development Intervention (ODI) is an effective method to improve students' English class engagement. However, there is still limited understanding of the underlying mechanisms of this relation. Based on the framework of action research, the current study aimed to fill this gap by scrutinizing the changes in and effects of self-efficacy and motivation on student class engagement. Two parallel classes of English major students participated in this study. The results revealed the following major findings: (1) self-efficacy, motivation and student class engagement were positively related to each other, (2) self-efficacy and motivation can significantly predicted students class engagement, (3) students class engagement, self-efficacy and motivation were significantly improved through ODI implementation. These findings contribute to the understanding of the impact of ODI on student class engagement, self-efficacy and motivation. Limitations and implications for further research are discussed.

Keywords

Student Class Engagement; Self-efficacy; Motivation; Organizational Development; University Students.

1. Introduction

Since the 1990s, the international higher education reform has been gradually advanced [1], and many scholars have discussed the function of university and the relationship between university and society in the social background of informationization and globalization [2]. At the same time, quality problems are increasingly highlighted in the process of achieving the goal of higher education popularization [3]. In the confusion of quality and quantity, people call attention to the "quality" [4]. However, how to improve the quality of higher education is a difficult problem to educators. As a consequence, many scholars began to focus their research on the students and they regarded the college students' learning engagement as the key point of solving problems of the quality of higher education [5].

Meanwhile, technology brings unprecedented opportunities and challenges to higher education and these technologies are reflected in all aspects of acquiring knowledge [6]. The integration of education and technology has increasingly become a megatrend of educational reform and innovation worldwide. Web-based courses are designed to shift the instruction model from the teacher-centered to student-centered. Students can learn related contents from online videos and other educational technologies outside the classroom, and then classroom time can be used to enhance the learning contents, explore an in-depth discussion on related topics and create effective and attractive learning opportunities [7]. Many factors (e.g. class size, teaching method, and teaching equipment) will have a certain influence on students' performance and teaching quality in this classroom. Obviously, a common theme is that there is a greater focus on students' engagement. Students' engagement reflects on many aspects, such as concept exploration,

meaning making and demonstration with more opportunities for discussion, formative assessment and feedback.

In addition, organizational development is a systematic process of data collection, diagnosis, behavior planning, intervention and evaluation. Organizational development theory is committed to updating the psychology of members in terms of attitudes, values, skills, interpersonal relationships and cultural atmosphere to cope with the dramatic changes in the environment. Schools, colleges and even classrooms are all forms of organization.

Therefore, to study the relationship among students' engagement, self-efficacy and motivation based on the perspective of organizational development is not only a theoretical combing and exploration, but also a diagnosis and guidance of the reality of undergraduates. Both of them have strong meanings and values in theory and practice. At the same time, it can also provide decision-making reference and practical guidance for the development of students and the improvement of the quality of higher education.

2. Literature Review and Hypotheses

2.1. Organizational Development and Organizational Development Intervention

Burke and Bradford [8] believed that Organization Development (hereinafter referred to as OD) refers to a systematic change plan that aims to improve the overall performance of the organization by adopting key factors such as external environment, strategy, leadership, and culture. According to Cummings and Worley [9], organization development "-the field of planned change itself-is changing" and they considered OD as a systematic application of behavioral science knowledge to develop, improve, and strengthen strategies, structures, and processes that promotes organizational effectiveness in accordance with plans.

Organizational development intervention is involved in a dynamic relational system that helps organizations solve problems by communicating back and forth and some related measures. The objects of intervention can be individuals, groups or selected targets.

2.2. Student Class Engagement

Engagement as a positive state of psychology with the rise of positive psychology theory has become a hot topic in higher education. Astin [10] proposed a theory about "participation" of college students, and which was called "engagement" later. In his article, he defined engagement as students' physical and psychological energy for academic learning.

In 2003, Kuh [11] made a further explanation for this concept, and he argued that student class engagement is the time and effort that students put into classroom-related activities, including both in-class and out-of-class activities, and the school's practice of using a range of policies to guide students in engaging in these activities. According to Trowler [12], student class engagement is concerned with a combination of time, energy and other related resources that students and their institutions devote to learning. The purpose is to optimize students' learning experience, improve their learning outcomes and development, and enhance organization's reputation and performance.

Additionally, Fredricks, Blumenfeld and Paris [13] argued that student class engagement is a comprehensive concept, including behavioral, emotional, and cognitive engagement. These three are dynamic and interrelated and should be applied organically.

2.3. Self-efficacy

Soffa [14] argued that academic self-efficacy refers to students' confidence or belief in their ability to complete a specific course task. It is simply an individual's belief in his own academic success. In terms of learning, students with high self-efficacy think that if they can learn new

knowledge with serious lectures or reading, they can find ways to solve complex problems and know how to seek resource support. Students with low self-efficacy usually feel that they do not have the ability to solve problems.

Self-efficacy theory believes that individual mastery of expectation is the main determinant of behavior change [15]. According to this theory, many scales were developed by scholars to assess self-efficacy in various contexts, in order to find out the relationship between self-efficacy and behavior. Owen and Froman [16], who developed the College Academic Self-Efficacy Scale (CASES), measured student self-efficacy through three areas. They were social situations, cognitive operations and technical skills. Gaudiano and Herbert [17] designed a similar survey scale (Self-efficacy for Social Situations Scale) to assess self-efficacy from three dimensions, namely, self-efficacy for social skills, self-efficacy for cognitive coping and self-efficacy for affective coping.

2.4. Motivation

According to Rueda and Moll [18], motivation is the intrinsic psychological process or the internal dynamics of an individual's activity that is motivated by a goal or object. It is the basis of most human behaviors.

When it comes to the field of higher education, motivation in learning refers to a motivational tendency that triggers and maintains student learning behaviors and directs them to certain academic goals [19]. It is generally expressed by a strong desire for knowledge, curiosity and interest in the unknown world, and serious and positive learning attitude. According to Harmer [20], Student motivation is the "internal drive" that pushes them to do something. When students find a subject (such as English) enjoyable and they would like to analyze their capacity, to observe and gain knowledge, so as to master it.

According to Gardner and Lambert [21], there are two types of motivation: integrative and instrumental motivation. Integrative motivation refers to individuals have a strong interest in language learning and hope to integrate into the culture of the language they are learning; while instrumental motivation emphasizes that the purpose of learning is to gain economic benefits or other profits.

Moreover, compared with instrumental motivation, integrative motivation is the most important motivation for learning a target language, and it also has the greatest impact on the degree of learning engagement [22].

2.5. Hypotheses

Under this background, the objective of this research is to investigate the relationship between student class engagement, self-efficacy, and motivation in the selected university. The hypothesized relationships among student class engagement, self-efficacy, and motivation are illustrated as following:

Hypothesis 1 (H1). Self-efficacy has a significant impact on student class engagement.

Hypothesis 2 (H2). Motivation has a significant impact on student class engagement.

3. Methodology

3.1. Participants

This study was conducted at a private university in southern China. Two parallel classes of Junior from the English major of Y university were chosen by the researcher as the target groups in this study. All participants in each group were aged between 20-21.

3.2.   Research Instruments

The pilot questionnaire was administered in one parallel class of the same grade in the selected university in China. The respondents answered a battery of questionnaires: The background information questionnaire (including gender and age), the Student Class Engagement Questionnaire, the Self-Efficacy Scale, and the Motivation Scale. To ensure the adaptation of the measurement items in target university, two professors from this university reviewed the validity of the questionnaires and provided feedback to refine the measurement items. Based on the good level of English of participants, all the research instruments were conducted in English.

Bernbach's alpha was computed by statistical analysis software to assess the internal consistency of the questionnaire that was made up of Likert-type scales and items. Cronbach's Alpha was reported at 0.901, which indicated a high level of internal consistency for the whole scale.

3.3.   ODI Implementation Design

The whole OD intervention design program is summarized as follows, as shown in Table 1.

Table 1. OD Interventions Design Program

No.	Intervention	Training Hours
1	**AI and SOAR Workshop** -Introduction and workshop objectives -Change management and why -Appreciative inquiry concept -4D cycle -SOAR concept -To apply AI and SOAR in learning process -Summary and feedback	12
2	**Coaching and Mentoring** -Introduction and workshop objectives -Social communication skills coaching -Presentation skills coaching -Presentation exercise -Mentoring for addressed learning problems -Questioning and answering techniques -Performance appraisal -Summary and feedback	12
3	**Goal Setting** -Introduction and workshop objectives -Goal setting concept -SMART goal setting -Goal setting exercise -Sharing the set goals -Summary and feedback	12
4	**Team Development Activities** -Introduction and workshop objectives -Team building concept -Team building process (forming, storming, norming, performing and adjourning) -Group presentation -Summary and feedback	18

3.4.   Data Collection and Analysis

SPSS 26.0 was used to analyze the data collected from the questionnaire. The general data was described by using mean and standard deviation. Pearson correlation analysis and linear regression analysis were used to determine the relationship between student class engagement, self-efficacy, and motivation.

4.   Analysis of Findings

4.1.   Correlation Analysis

Table 2. Pearson Correlation Analysis between Student Class Engagement and Self-efficacy

Variables		Cognitive Engagement	Emotional Engagement	Behavioral Engagement
Social Skills	Pearson Correlation	.543**	.534**	.750**
	Sig. (2-tailed)	.001	.001	.000
	N	33	33	33
Cognitive Operation	Pearson Correlation	.508**	.726**	.601**
	Sig. (2-tailed)	.003	.000	.000
	N	33	33	33
Affective Coping	Pearson Correlation	.536**	.589**	.460**
	Sig. (2-tailed)	.001	.000	.007
	N	33	33	33

The statistical findings that is shown in Table 2 support that sub-variables of self-efficacy (social skills, cognitive operation and affective coping) have a significant relationship with student class engagement on sub-variables (cognitive engagement, emotional engagement and behavioral engagement).

Table 3. Pearson Correlation Analysis between Student Class Engagement and Motivation

Variables		Cognitive Engagement	Emotional Engagement	Behavioral Engagement
Integrative Motivation	Pearson Correlation	.642**	.651**	.634**
	Sig. (2-tailed)	.000	.000	.000
	N	33	33	33
Instrumental Motivation	Pearson Correlation	.558**	.355*	.485**
	Sig. (2-tailed)	.001	.043	.004
	N	33	33	33

The statistical findings that is shown in Table 3 supports that sub-variables of motivation (integrative motivation and instrumental motivation) have a significant positive relationship with student class engagement on sub-variables (cognitive engagement, emotional engagement and behavioral engagement).

4.2.   Regression Analysis

Table 4. Multiple Linear Regression Analysis between Student Class Engagement and Self-efficacy

① Variables Entered/Removed

Variables Entered/Removedª			
Model	Variables Entered	Variables Removed	Method
1	Affective Coping, Cognitive Operation, Social Skillsᵇ	.	Enter
a. Dependent Variable: Student Class Engagement			
b. All requested variables entered.			

② Model Summary

Variables Entered/Removedª				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.823a	.677	.644	5.58429
a. Predictors: (Constant), Affective Coping, Cognitive Operation, Social Skills				

③ ANOVA

ANOVAª						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1898.624	3	632.875	20.295	.000b
	Residual	904.345	29	31.184		
	Total	2802.970	32			
a. Dependent Variable: Student Class Engagement						
b. Predictors: (Constant), Affective Coping, Cognitive Operation, Social Skills						

④ Coefficients

Coefficientsª						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.000	10.129		-.099	.922
	Social Skills	2.048	.726	.375	2.822	.009
	Cognitive Operation	.993	.334	.381	2.977	.006
	Affective Coping	1.272	.588	.262	2.162	.039
a. Dependent Variable: Student Class Engagement						

Tables 4 (including ①, ②, ③ and ④) shows the relationship of self-efficacy and student class engagement. The result of ANOVA analysis (P <0.05) indicates that the estimated model can explain the relationship of social skills, cognitive operation and affective coping on student class engagement. As R square value is .677, which shows that independent variables account for 67.7% of dependent variables. Furthermore, the result of coefficients analysis (P <0.05) shows there is a significant relationship between self-efficacy involving social skills, cognitive operation and affective coping and student class engagement.

Tables 5 (including ①, ②, ③ and ④) shows the relationship of motivation and student class engagement. The result of ANOVA analysis (P <0.05) indicates that the estimated model can explain the relationship of integrative motivation and instrumental motivation on student class engagement. As R square value is .520, which shows that independent variables account for 52.0% of dependent variables. Furthermore, the result of coefficients analysis on integrative motivation (P <0.05) shows there is a significant relationship between integrative motivation and student class engagement, but the result of coefficients analysis on instrumental motivation (P >0.05) shows there is no significant relationship between instrumental motivation and student class engagement.

Table 5. Multiple Linear Regression Analysis between Student Class Engagement and Motivation

① Variables Entered/Removed

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Instrumental Motivation, Integrative Motivation[b]	.	Enter
a. Dependent Variable: Student Class Engagement			
b. All requested variables entered.			

② Model Summary

Variables Entered/Removed[a]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721a	.520	.488	6.69751
a. Predictors: (Constant), Instrumental Motivation, Integrative Motivation				

③ ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1457.270	2	728.635	16.244	.000b
	Residual	1345.700	30	44.857		
	Total	2802.970	32			
a. Dependent Variable: Student Class Engagement						
b. Predictors: (Constant), Instrumental Motivation, Integrative Motivation						

④ Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.482	10.091		1.633	.113
	Integrative Motivation	1.502	.381	.662	3.939	.000
	Instrumental Motivation	.282	.555	.085	.508	.615
a. Dependent Variable: Student Class Engagement						

4.3.   ODI Implementation Effect Analysis

Table 6. Analysis on Pre-ODI and Post-ODI for Student Class Engagement

Variables	Pre-ODI			Post-ODI			Percent Improvement (Pre vs. Post)
	Mean	S.D.	Interpretation	Mean	S.D.	Interpretation	
Cognitive Engagement	3.140	.7172	Moderate	3.536	.7858	High	12.61%
Emotional Engagement	3.218	.6726	Moderate	3.754	.8052	High	16.66%
Behavioral Engagement	3.248	.7445	Moderate	3.688	.6924	High	13.55%

Table 6 shows the increased average scores of the variables of student class engagement at post-ODI stage. The average scores of cognitive engagement, emotional engagement and behavioral engagement are 3.536, 3.754, and 3.688 respectively. The largest increase is in emotional engagement, which increases by 16.66% and cognitive engagement is 4.05% less than emotional engagement. According to the interpretation criteria, it means all the sub-variables toward student class engagement are improved from moderate to high. The results show that after the intervention, student class engagement has been improved.

Table 7. Analysis on Pre-ODI and Post-ODI for Self-Efficacy

Variables	Pre-ODI			Post-ODI			Percent Improvement (Pre vs. Post)
	Mean	S.D.	Interpretation	Mean	S.D.	Interpretation	
Social Skills	3.024	.6886	Moderate	3.410	.5796	Moderate	12.76%
Cognitive Operation	3.240	.7176	Moderate	3.703	.6777	High	14.29%
Affective Coping	3.020	.7760	Moderate	3.580	.7740	High	18.54%

Table 7 shows the increased average scores of the variables of self-efficacy at post-ODI stage. The average scores of social skills, cognitive operation and affective coping are 3.410, 3.703, and 3.580 respectively. The largest increase is in affective coping, which increases by 18.54%. Furthermore, social skills increases slightly, and it is 5.78% less than affective coping. According to the interpretation criteria, it means cognitive operation and affective coping are improved from moderate to high, while social skills stay the same. The results show that after ODIs, self-efficacy has been improved.

Table 8. Analysis on Pre-ODI and Post-ODI for Motivation

Variables	Pre-ODI			Post-ODI			Percent Improvement (Pre vs. Post)
	Mean	S.D.	Interpretation	Mean	S.D.	Interpretation	
Integrative Motivation	3.458	.7042	Moderate	3.808	.6861	High	10.12%
Instrumental Motivation	3.704	.6484	High	3.796	.8286	High	2.48%

Table 8 shows the increased average scores of the variables of motivation at post-ODI stage. The average scores of integrative motivation and instrumental motivation are 3.808 and 3.796 respectively. The integrative motivation increases by 10.12%, while the instrumental motivation holds stable change. The difference between the two mean scores is obvious before ODIs and tends to be consistent after ODIs. It is worth mentioning that before ODIs, the average score of instrumental motivation is more than integrative motivation, while the two are opposite after interventions. According to the interpretation criteria, it means integrative motivation is improved from moderate to high, while instrumental motivation stays the same. The result indicates that students' instrumental motivation remains a high level before ODIs, and then, they begin to realize that the importance of integrative motivation in learning.

4.4. Hypotheses Testing

To test the hypothesis 1 whether there is a significant relationship between self-efficacy and student class engagement, Pearson's correlation analysis and multiple linear regression analysis are used to determine the relationship of self-efficacy and student class engagement. There is a strong and positive correlation between self-efficacy and student class engagement (Pearson's correlation analysis: $p<0.05$, multiple linear regression analysis: $P<0.05$). Therefore, The results supported H1.

To test the hypothesis 2 whether there is a significant relationship between motivation and student class engagement, Pearson's correlation analysis and multiple linear regression analysis are used to determine the relationship of motivation and student class engagement. There is a strong and positive correlation between motivation and student class engagement

(Pearson's correlation analysis: p<0.05, multiple linear regression analysis: P<0.05). Therefore, The results supported H2.

5. Conclusion

This study indicates that there is a significant relationship between self-efficacy and student class engagement as well as motivation and student class engagement. Specially, social skills, cognitive operation, affective coping, and integrative motivation have a positive impact on student class engagement.

Correlation analysis found that both self-efficacy and motivation had a significant positive correlation with student class engagement, and regression analysis also found that both self-efficacy and motivation had a strong positive predictive effect on student class engagement. Thus, students with higher self-efficacy and motivation will engage actively in classroom learning activities. These findings are consistent with previous studies. It can be seen that self-efficacy and motivation are important factors affecting student class engagement. Therefore, self-efficacy and motivation can be used as significant predictors to promote student class engagement and finally improve their learning outcome.

However, the object of this study is a private university in China, and the research conclusion is more suitable for explaining the local university student class engagement. In the future, research on student class engagement, self-efficacy and motivation should be carried out in other universities in different cities and regions, so as to further explore the impact of organizational development intervention on these three variables and enhance the applicability of research conclusion.

Acknowledgments

References

[1] P. Scott: The reform of English higher education: universities in global, national and regional contexts, Cambridge Journal of Regions, Economy and Society, vol. 7 (2013) No.2, p.217-231.

[2] S. Marginson: Higher education in the global knowledge economy, Procedia - Social and Behavioral Sciences, vol. 2 (2010) No.5, p.6962-6980.

[3] University of Oxford: International Trends in Higher Education 2016-17 on: http://www.ox.ac.uk/ sites/files/oxford/trends%20in%20globalisation_WEB.pdf.

[4] APEC Human Resource Development Working Group: Quality in Higher Education: Identifying, Developing and Sustaining Best Practices in the APEC Region on: https://www.apec.org/-/media/APEC/Publications/2011/10/Quality-in-Higher-Education-Identifying-Developing-and-Sustaining-Best-Practices-in-the-APEC-Region/2011_hrd_quality_education.pdf.

[5] L. Taylor and J. Parsons: Improving student engagement, Current Issues in Education, vol. 14 (2011) No.1, p.1-33.

[6] World Conference on Higher Education: Higher Education in the Twenty-first Century Vision and Action on: http://unesdoc.unesco.org/images/0011/001163/116345e.pdf.

[7] J.F. Strayer: How learning in an inverted classroom influences cooperation, innovation and task orientation, Learning Environments Research, vol. 15 (2012) No.2, p.171-193.

[8] M.A. Asumeng and J.A. Osae-Larbi: Organization development models: A critical review and implications for creating learning organizations, European Journal of Training and Development Studies, vol. 2 (2015) No.3, p.29-43.

[9]   T.G. Cummings and C.G. Worley: Organization Development & Change (9th ed.) (Cengage Learning, Mason 2008).

[10] A.W. Astin: Student involvement: A developmental theory for higher education, Journal of College Student Personnel, vol. 25 (1984), p.297-308.

[11] G.D. Kuh: What We're Learning about student engagement from NSSE: Benchmarks for effective educational practices, Change, vol. 35 (2003) No.2, p.24-32.

[12] H. Ross, Y.H. Cen and Z.J. Zhou: Assessing student engagement in China: Responding to local and global discourse on raising educational quality, Current Issues in Comparative Education, vol. 14 (2011) No.1, p.24-37.

[13] J.A. Fredricks, P.C. Blumenfeld and A.H. Paris: School engagement: Potential of the concept, state of the evidence, Review of Educational Research, vol. 74 (2004) No.1, p.59-109.

[14] S.J. Soffa: Inspiring Academic Confidence in the Classroom: An Investigation of Features of the Classroom Experience that Contribute to the Academic Self-efficacy of Undergraduate Women Enrolled in Gateway Courses (University of Wisconsin-Madison, Madison 2007).

[15] A. Bandura: Self-efficacy: The Exercise of Control (W H Freeman/Times Books/ Henry Holt & Co., New York 1997).

[16] Development of a college academic self-efficacy scale on: http://files.eric.ed.gov/fulltext/ ED2981 58.pdf.

[17] B.A. Gaudiano and J.D. Herbert: Self-efficacy for social situations in adolescents with generalized social anxiety disorder, Behavioral & Cognitive Psychotherapy, vol. 35 (2007) No.2, p.209-223.

[18] G. Crookes and R.W. Schmidt: Motivation : Reopening the research agenda, Language Learning, vol. 41 (1991) No.4, p.469-512.

[19] R. Parsons, S. Hinson and D. Brown: Educational Psychology: Practitioner - Researcher Models of Teaching (Wadsworth Thomson Learning, University of Virginia 2001).

[20] J. Harmer: The Practice of English Language Teaching (Longman, London 1991).

[21] R.C. Gardner and W.E. Lambert: Attitudes and Motivation in Second Language Learning (Newbury House, Rowley 1972).

[22] R. Ellis: The Study of Second Language Acquisition (Oxford University Press, Oxford 1997).