The Impact of Learning Motivation on Student Engagement in Experiential Learning

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Abstract. This study explores the impact of student motivation on engagement in experiential learning. It uses a quantitative research design with a survey questionnaire to collect data from students. Findings reveal a significant positive relationship between motivation and engagement. Intrinsic motivation strongly influences engagement, while extrinsic motivation has limited impact. These findings contribute to understanding student engagement in experiential learning and have implications for educators and designers in creating supportive environments to enhance intrinsic motivation and maximize engagement.

Keywords: experiential learning, student engagement, intrinsic motivation, extrinsic motivation

1 Introduction

Experiential learning, a pedagogical approach centered around practical experiences and active student involvement, has garnered increasing recognition in the field of education due to its emphasis on hands-on activities, active participation, and reflective practices, which facilitate deep learning. However, despite its growing popularity, there remains a dearth of quantitative research investigating crucial aspects of experiential learning, particularly students' motivation to engage in such activities and the extent of their engagement.

Previous studies have established a positive correlation between student engagement and various outcomes, including learning achievements, academic performance, and personal development[1][2]. When psychological needs are satisfied, individuals are more likely to experience heightened motivation and engage in positive behavior[3].

The primary objective of this study is to examine the relationship between students' motivation to engage in experiential learning and their level of engagement. The study may contribute to optimizing mechanisms for student motivation, ultimately enhancing student engagement and improving learning outcomes.

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2 Theoretical foundation

John Dewey introduced the concept of experiential learning, emphasizing the importance of practical experience, active participation, and problem-solving in the construction of new knowledge. The Association of Experiential Education (2012) defines experiential learning as direct experiences accompanied by focused reflection, enhancing knowledge, skills, values, and community contributions. Previous research supports the notion that students achieve optimal learning outcomes through active engagement in experiential learning processes[4] [5] [6] .

Student engagement has been defined in various ways, including involvement in learning, investment of time and energy in meaningful activities, and willingness to participate in higher-level thinking [7] [8] [9]. Kuh (2001) suggests that the amount of time and energy students invest in educationally meaningful activities predicts their learning and personal development[8]. Carini et al. (2006) discovered a positive relationship between student engagement and learning outcomes using the NSSE survey[1] . Skinner and Belmont (1993) observed that highly engaged students demonstrated behavioral involvement, positive emotions, and a preference for challenging tasks[10]. Trowler (2010) expanded the concept of student engagement to encompass behavioral and emotional dimensions[11] .

Motivation is seen as a pre-requisite of and a necessary element for student engagement in learning[9] . Doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome[12] . Intrinsically motivated activities were said to be ones for which the reward was in the activity itself [13]. Numerous research studies have shown that intrinsically motivated students have higher engagement in learning than students who are not intrinsically motivated [14][15]. Although intrinsic motivation is an important type of motivation, it is not the only type or even the only type of self-determined motivation[12]. Indeed, much of what people do is not, strictly speaking, intrinsically motivated [3]. As individuals progress beyond childhood, intrinsic motivation becomes increasingly influenced by external factors, diminishing its driving force [3]. Extrinsic motivation can reflect a state of autonomy in which individuals internalize the rules of behavior, recognizing its significance [3]. Connell & Wellborn (1991) further suggest a positive association between more self-determined extrinsic motivation and increased levels of engagement [16]. More self-determined extrinsic motivation has been linked to enhanced performance [17] and higher-quality learning experiences[18]. Through qualitative research conducted in an educational setting, Saeed & Zyngier (2012) discovered that students inclined towards intrinsic motivation demonstrated authentic engagement in learning, while those inclined towards extrinsic motivation displayed engagement in ritualistic aspects[9] .

3 Methodology

This study employed quantitative research methods. Data analysis was conducted using SPSS26. The research focused on students from Yunnan University of Finance and

Economics, with a sample size of 344 participants. A Likert 5-point scale was utilized in the questionnaire, with 1 indicating "strongly disagree" and 5 indicating "strongly agree." Taking into account the potential impact of individual traits and background factors on motivation and engagement [13], this study incorporates demographic variables, namely gender, family background, and year of study, as control variables.

Students with positive learning motivation are more willing to engage in learning activities, invest more time and effort, and demonstrate higher levels of learning participation[9]. According to Ryan and Deci(2000), intrinsic motivation plays a dominant role in learning behavior[13]. Froiland and Worrell (2016) argue that intrinsic motivation predicts student engagement[19]. Therefore, we propose H1: Intrinsic motivation has a significant positive relationship with student engagement.

Albert Bandura (1977) suggests that individuals' learning motivation can be regulated by external factors, such as rewards, praise, or other external stimuli[20] . External rewards and incentives can have a positive impact on individuals' intrinsic motivation. Ryan and Deci (2000) argue that most human activities are not driven by intrinsic motivation but rather by extrinsic motivation[13]. Therefore, we propose H2: Extrinsic motivation has a significant positive relationship with student engagement.

Table 1. Descriptive, reliability and validity statistics

FACTORS	Mean	SD	Cronbach's α	AVE	1	2	3	4
1. Intrinsic motivation	3.72	0.71	0.887	0.502	**0.709**			
2. Extrinsic motivation	3.56	0.69	0.625	0.574	-0.006	**0.758**		
3. Emotional Engagement	3.27	0.71	0.877	0.531	.648**	-0.02	**0.729**	
4. Behavioral Engagement	3.6	0.75	0.842	0.517	.566**	-0.061	.606**	**0.719**

Note: * $p < 0.05$， ** $p < 0.01$

It is generally accepted that a Cronbach's α value of 0.6 is sufficient for Confirmatory Factor Analysis, and a value of 0.5 is acceptable for Exploratory Factor Analysis[21]. According Table 1, the scale demonstrates commendable reliability in the present study. The engagement scale was subjected to factor analysis, resulting in the extraction of two variables: emotional engagement and behavioral engagement. These findings are consistent with previous theoretical propositions. Following the completion of the reliability and validity analysis, we conducted descriptive statistics, correlation analysis, multiple regression analysis, independent samples t-tests, and analysis of variance.

4 Data Analysis and Results

A total of 381 questionnaires were collected for this study. After removing 37 invalid responses, a sample of 344 valid questionnaires was retained for analysis. The first step

involved conducting a factor analysis using SPSS 26.0 to identify the dimensions of the questionnaire. Subsequently, independent samples t-tests and ANOVA were performed to explore potential differences among different demographic variables, including gender, family background, student status, and year of study.

The results indicated that gender, family background, and student status did not show significant differences in relation to the study outcomes. However, the year of study was found to have a significant effect, leading to the coding and conversion of the grade level variable into a dummy variable. In the next step, correlation analysis was conducted to investigate the relationship between motivation dimensions and participation dimensions. Finally, multiple regression analysis, incorporating control variables, was performed to examine the impact of intrinsic and extrinsic motivation on students' emotional and behavioral engagement.

Table 2. Regression Analysis of Engagement on Intrinsic and Extrinsic Motivation

Dependent Variable	Independent Variable		Unstd		Std	t	P-value	VIF	R^2	D-W
			B	S·E	Beta					
	constant		1.341	0.256		5.246	0.000		0.434	2.080
	Intrinsic motivation		0.611	0.042	0.625	14.598	0.000	1.053		
	Extrinsic motivation		-0.006	0.039	-0.007	-0.159	0.874	1.025		
Emotional Engagement	Year of study	Freshman	0.034	0.171	0.013	0.199	0.843	2.272		
		Sophomore	-0.021	0.155	-0.010	-0.135	0.893	3.088		
		Junior	-0.089	0.138	-0.064	-0.646	0.519	5.685		
		Senior	0.070	0.170	0.026	0.410	0.682	2.342		
		Postgraduate Year 1	0.163	0.160	0.071	1.018	0.309	2.766		
		Postgraduate Year 2	0.052	0.197	0.015	0.266	0.790	1.754		
		Postgraduate Year 3	0.000							
Behavioral Engagement	constant		1.476	0.280		5.275	0.000		0.355	1.984
	Intrinsic motivation		0.538	0.046	0.537	11.745	0.000	1.053		

	Extrinsic motivation		-0.039	0.042	-0.041	-0.918	0.359	1.025		
	Year of study	Freshman	-0.165	0.187	-0.059	-0.880	0.379	2.272		
		Sophomore	-0.039	0.170	-0.018	-0.229	0.819	3.088		
		Junior	-0.145	0.151	-0.102	-0.965	0.335	5.685		
		Senior	0.053	0.186	0.019	0.286	0.775	2.342		
		Postgraduate Year 1	0.267	0.175	0.113	1.527	0.128	2.766		
		Postgraduate Year 2	-0.089	0.215	-0.024	-0.414	0.679	1.754		
		Postgraduate Year 3	0.000							

The detailed results of the analysis are presented in Tables 2. When controlling for the year of study, the findings revealed no significant effect of extrinsic motivation on affective engagement or behavioral engagement. However, intrinsic motivation was found to have a significant effect on both affective and behavioral engagement.

5 Discussion

This study aimed to investigate the relationship between students' motivation and their engagement in experiential practice activities. Rigorous quantitative research methods were employed. The results revealed that motivation had a partial impact on participation, with intrinsic motivation significantly influencing participation, while extrinsic motivation did not show a significant effect. These findings differ from previous studies that reported a significant influence of extrinsic motivation on student learning. Several factors could explain this discrepancy, including methodological variations, differences in measurement instruments, or limitations in research design.

This study makes important contributions to the existing literature by addressing a research gap and providing valuable insights into the relationship between students' motivation and engagement in experiential practice activities, an area that has received limited attention in previous studies. The findings enhance our understanding of the learning process and shed light on the mechanisms through which motivational factors operate. Moreover, the implications of this study extend to educational practice, as educators, tutors, and policymakers can leverage the findings to design more effective educational strategies, incentives, and engaging experiential learning activities that stimulate students' intrinsic motivation. By doing so, they can increase student engagement and improve the overall quality of experiential learning and learning outcomes.

However, it is essential to acknowledge the limitations of this study. Firstly, the specific sample and measurement instrument used may limit the generalizability of the findings. Additionally, this study solely focused on the relationship between motivation and engagement, without considering the influence of other potential factors.

Furthermore, Future research could incorporate additional variables to explore the complex relationship between motivation and engagement. Future research could explore the moderating effects of different factors, such as individual differences, educational environment, cultural background, and the design of experiential practice activities, on the relationship between motivation and engagement.

6 Conclusion

This study employed robust quantitative statistical methods to investigate the impact of motivation on engagement in experiential learning. A meticulously developed and validated scale was utilized to assess students' motivation and engagement in experiential learning activities, and the collected data were analyzed using SPSS26. The findings supported that intrinsic motivation significantly influences engagement in experiential learning activities, while the impact of extrinsic motivation is not statistically significant. Thus, learning motivation has a discernible impact on student engagement to a certain degree. By investigating the impact of motivation on engagement, this study contributes significantly to the existing understanding of the learning process. Educators can leverage these insights to develop instructional strategies that foster intrinsic motivation and enhance student engagement in experiential learning activities.

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Reference

1. Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student engagement and student learning: Testing the linkages. *Research in higher education*, *47*, 1-32.
2. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, *74*(1), 59-109.
3. Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, *25*(1), 54-67.
4. Caulfield, J., & Woods, T. (2013). Experiential Learning: Exploring Its Long-Term Impact on Socially Responsible Behavior. *Journal of the Scholarship of Teaching and Learning*, 13(2), 31-48.
5. Fenwick, T. J. (2000). Expanding conceptions of experiential learning: A review of the five contemporary perspectives on cognition. *Adult education quarterly*, 50(4), 243-272.
6. Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development.* FT press.

7. Axelson, R. D., & Flick, A. (2010). Defining student engagement. *Change: The magazine of higher learning*, *43*(1), 38-43.
8. Kuh, G. D. (2001). The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties.
9. Saeed, S., & Zyngier, D. (2012). How motivation influences student engagement: A qualitative case study. *Journal of Education and learning*, *1*(2), 252-267.
10. Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of educational psychology*, *85*(4), 571.
11. Trowler, V. (2010). Student engagement literature review. *The higher education academy*, *11*(1), 1-15.
12. Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, *19*(2), 109-134.
13. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78.
14. Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual review of psychology*, 53(1), 109-132.
15. Wigfield, A., & Wagner, A. L. (2005). Competence, motivation, and identity development during adolescence. *Handbook of competence and motivation*, 222-239.
16. Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes.
17. Miserandino, M. (1996). Children who do well in school: Individual differences in perceived competence and autonomy in above-average children. *Journal of Educational Psychology,* 88, 203–214.
18. Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: an experimental and individual difference investigation. *Journal of personality and social psychology*, *52*(5), 890.
19. Froiland, J. M., & Worrell, F. C. (2016). Intrinsic motivation, learning goals, engagement, and achievement in a diverse high school. *Psychology in the Schools*, *53*(3), 321-336.
20. Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, *84*(2), 191.
21. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis: Pearson College division. *Person: London, UK.*