



Social Media Learning Use and Vocational Students' Learning Engagement: Self-Worth Moderation

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Abstract. This study explores the relationship between vocational students' learning-oriented social media use and their learning engagement, as well as the moderating effect of three-dimensional self-worth (competence, social, emotional) in this association. A questionnaire survey was administered to measure the three variables, with Pearson correlation analysis adopted to examine their correlations and the PROCESS plug-in used to test the mediating path of self-worth's moderating effect. The results show that learning-oriented social media use significantly and positively predicts vocational students' learning engagement, and self-worth exerts a significant positive moderating effect through partial mediation. Based on the findings, targeted suggestions are proposed from school, teacher, student and family perspectives to optimize learning-oriented social media application and self-worth cultivation, thereby improving vocational students' learning engagement.

Keywords: Learning-oriented use of social media, Learning engagement, Self-worth.

1 Introduction

In the digital era, social media is deeply integrated into vocational students' learning and daily life, serving as both entertainment and learning resources. Their learning engagement is crucial for academic and career development under further education and employment pressures, yet existing studies mostly focus on social media's direct impact on academic performance and ignore the positive effects of its learning-oriented use. Learning engagement, a multidimensional construct, is shaped by internal psychological resources rather than just technical intervention.

Recent research has identified self-worth as a key psychological driver of students' learning. This study explores how learning-oriented social media use affects vocational students' learning engagement, focusing on the moderating role of three-dimensional self-worth (competence, social, emotional). It deepens understanding of the "technology-psychology-behavior" mechanism in vocational education and provides empirical evidence for educators to promote students' academic and personality development.

2 Literature Review and Research Hypotheses

2.1 Literature Review

Learning use of social media denotes the application of social media to learning activities, including gathering academic information and discussing learning issues with teachers and classmates^[1]. As noted by Al-Rahmi et al, accessing rich learning resources is a key incentive for students to adopt social media for learning^[2]. These platforms facilitate the retrieval of academic content, enable idea exchanges between users, and exert a positive influence on academic performance. Given that the learning demands of secondary vocational school students align well with the resource acquisition and interactive functions of social media, this study focuses on this student group.

Mao Xinjie, Chou Tianshu, and other scholars define learning engagement as a sustained, positive, and fulfilling psychological state during learning^[3]. It comprises three dimensions: vigor (a positive mental state), dedication (a proactive attitude toward learning challenges), and absorption (deep concentration in learning activities). In this study, learning engagement refers to students' cognitive focus, emotional investment, and behavioral effort in knowledge acquisition, skill training, and practice. As a key mediating variable between learning behaviors and academic outcomes, learning engagement is critical for enhancing educational quality and promoting students' academic performance and long-term development.

Self-worth denotes a stable psychological trait formed through an individual's multidimensional evaluation of self-value based on the self-cognitive system^[4]. Tafarodi & Swann established a two-dimensional framework of self-competence and self-liking: self-competence reflects perceived ability and efficacy, whereas self-liking represents emotional acceptance of oneself^[5]. Crocker & Wolfe further highlighted the domain specificity of self-worth, especially in competence and social domains^[6]. Based on Chinese cultural context, Huang Xiting proposed a three-dimensional structure of self-worth: competence, affect, and social^[7]. Following this line of research, the present study also adopts the three-dimensional model of self-worth. Based on the above theories, this study constructs a theoretical framework (as shown in Figure 1).

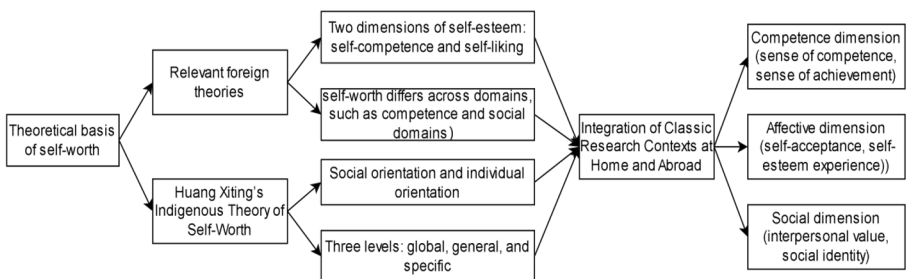


Fig. 1. Three-Dimensional Self-Worth Construction Theoretical Framework Diagram

2.2 Research Hypotheses

Existing studies have confirmed that learning-oriented use of social media is an important external factor influencing students' learning engagement. Dumford & Miller pointed out that educational use of social media can significantly and positively predict students' behavioral, emotional, and cognitive engagement. Liu et al. further distinguished the purposes of use and found that only learning-oriented use, rather than social-oriented use, can effectively improve online learning engagement. As a core evaluation of individuals' self-value, self-worth plays a key moderating role between external stimuli and academic behaviors. Studies by Crocker & Wolfe and Nand et al. have also verified that self-worth can positively moderate the relationship between learning-related behaviors and engagement.

Based on the above research, this study proposes the following hypotheses:

H1: Learning-oriented use of social media has a significant positive impact on vocational school students' learning engagement.

H2: Self-worth plays a positive moderating role in the relationship between learning-oriented social media use and vocational school students' learning engagement.

3 Method

3.1 Research Participants

Data for this study were collected through a combination of online and offline methods to ensure both the objectivity of the survey and the accessibility of data. A mixed sampling strategy of random sampling and cluster sampling was adopted: classes were randomly selected, and questionnaire surveys were administered to all students in the selected classes. The respondents were mainly secondary vocational school students, and all participants took part voluntarily. After excluding invalid questionnaires, a total of 1,002 valid responses were obtained. Among them, there were 509 males (50.8%) and 403 females (49.2%). The mean age was 17.54 years (standard deviation = 0.776 years, age range: 16–20 years). The participants were secondary vocational school students majoring in various fields, including financial accounting, e-commerce, mechanical and electrical technology, and automotive maintenance.

3.2 Research Procedure

Researchers clearly explained the research purpose, significance, content, methods and precautions to the participants. Upon obtaining their informed consent, a unified questionnaire survey was conducted online and offline. To ensure the validity and reliability of the collected data, the following exclusion criteria were set: questionnaires completed in less than 3 minutes and those with highly consistent answers across all items were excluded from the analysis.

3.3 Research Instruments

The questionnaire used in this study consisted of four sections: demographic information, social media use, learning engagement, and hope. The latter three scales were rated on a 5-point Likert scale (1 = “strongly disagree”, 5 = “strongly agree”). Higher scores indicated a higher degree of agreement with the statement. The overall Cronbach's α coefficients for the learning use of social media scale and learning engagement scale were 0.770 and 0.867, respectively, indicating good reliability. For self-worth, the Cronbach's α coefficients for its three dimensions (competence, affective, and social self-worth) were 0.705, 0.780, and 0.783, and the Cronbach's α coefficient for the overall self-worth scale was 0.8694, all showing good reliability.

3.4 Statistical Analysis

According to existing research, this study classifies self-worth into three dimensions: competence, emotional and social self-worth. Based on their core connotations, typical keywords were chosen to construct the self-worth dimension map (see Fig. 2).

Data processing and statistical analysis were mainly conducted using SPSS. Pearson correlation analysis was used to examine the relationships among variables, and hierarchical regression analysis was performed using the PROCESS plug-in. The analysis included two steps: first, testing the main effect of learning-oriented social media use on learning engagement; second, adding the three dimensions of self-worth as moderators to test the significance of regression coefficients and verify the moderating effect.

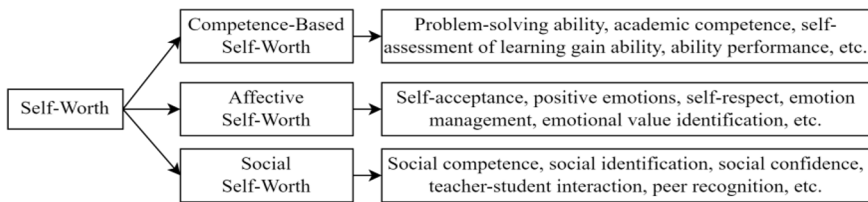


Fig. 2. Dimensional Division of Self-Worth

4 Results and Discussion

4.1 Correlation Analysis of Key Variables

The results of descriptive statistics and Pearson correlation analysis for all variables are presented in Table 1. The correlation analysis showed that the learning-oriented use of social media was significantly and positively correlated with learning engagement ($r=0.544$, $P<0.01$), and also significantly and positively correlated with all dimensions of self-worth ($P<0.01$). In addition, learning engagement was significantly and positively correlated with each dimension of self-worth ($P<0.01$), indicating a close positive association among the learning-oriented use of social media, self-worth and learning engagement of vocational school students.

Table 1. Descriptive Statistics and Correlation Analysis of Learning-Oriented Use of Social Media, Learning Engagement and Self-Worth

Variable	M	SD	1	2	3	4	5
1. Learning-oriented use of social media	2.8774	0.88148	1				
2. Learning engagement	2.8691	0.83272	0.544**	1			
3. Competence self-worth	2.8507	0.77926	0.433**	0.605**	1		
4. Emotional self-worth	3.1156	0.86797	0.399**	0.529**	0.666**	1	
5. Social self-worth	2.7788	0.85350	0.508**	0.836**	0.559**	0.479**	1

Note: *p < 0.05, **p < 0.01, ***p < 0.001.

4.2 Test of the Mediating Effect of Self-Worth

Regression analysis results showed that learning-oriented social media use significantly and positively predicted learning engagement ($\beta=0.544$, $P<0.001$), as well as competence ($\beta=0.406$, $P<0.001$), emotional ($\beta=0.383$, $P<0.001$) and social self-worth ($\beta=0.482$, $P<0.001$). When entered separately with each dimension of self-worth, learning-oriented social media use still positively predicted learning engagement, and all three dimensions of self-worth also significantly and positively predicted learning engagement. These findings indicate that competence, emotional and social self-worth each play a partial mediating role (see Fig. 3 and Table 2).

Table 2. Regression Analysis of Relationships Among Variables in the Model

Regression Equation		Overall Fit Indices			Significance of Regression Coefficients	
Dependent Variable	Predictor Variable	R	R ²	F-Value	β	t-Value
Learning Engagement	Learning-Oriented Social Media Use	0.544	0.296	417.470	0.544	20.432
Learning Engagement	Competence-Based Self-Worth, Learning-Oriented Social Media Use	0.681	0.464	427.694	Learning-Oriented Social Media Use: 0.350 Competence-Based Self-Worth: 0.453	Learning-Oriented Social Media Use: 13.567 Competence-Based Self-Worth: 17.552
Learning Engagement	Affective Self-Worth, Learning-Oriented Social Media Use	0.641	0.411	345.765	Learning-Oriented Social Media Use: 0.395 Affective Self-Worth: 0.369	Learning-Oriented Social Media Use: 14.826 Affective Self-Worth: 13.847
Learning Engagement	Social Self-Worth, Learning-Oriented Social Media Use	0.846	0.716	1252.260	Learning-Oriented Social Media Use: 0.159 Social Self-Worth: 0.754	Learning-Oriented Social Media Use: 8.098 Social Self-Worth: 38.330

Note: All variables in the model were standardized before being entered into the regression equation, $P < 0.001$.

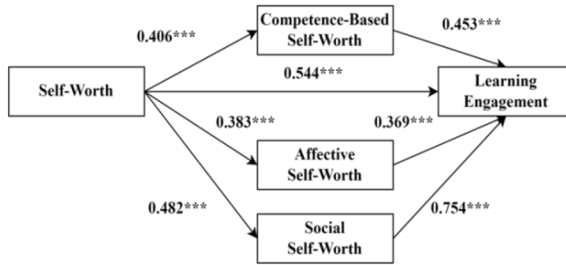


Fig. 3. Schematic Diagram of the Mediating Effect of Self-Worth

To further verify the mediating effects, a Bootstrap test was conducted using the PROCESS plug-in. The indirect effect of competence self-worth was 0.1838, accounting for 35.77% of the total effect, with a 95% CI [0.1430, 0.2282]. The indirect effect of emotional self-worth was 0.1413, accounting for 27.46% of the total effect, with a 95% CI [0.1062, 0.1784]. The indirect effect of social self-worth was 0.3634, accounting for 70.73% of the total effect, with a 95% CI [0.3099, 0.4176]. All confidence intervals excluded 0, confirming significant mediating effects (see Table 3).

Table 3. Mediating Effects of Self-Worth Dimensions in Learning-Oriented Social Media Use and Learning Engagement

Mediator	Item	Effect	SE	95%CI		Relative Mediation Effect (%)
				Lower	Upper	
competence-based self-worth	Direct Effect	0.3301	0.0243	0.2824	0.3779	64.23%
	Indirect Effect	0.1838	0.0215	0.1430	0.2282	35.77%
affective self-worth	Direct Effect	0.3733	0.0252	0.3239	0.4227	72.54%
	Indirect Effect	0.1413	0.0183	0.1062	0.1784	27.46%
social self-worth	Direct Effect	0.1504	0.0186	0.1140	0.1868	29.27%
	Indirect Effect	0.3634	0.0270	0.3099	0.4176	70.73%

5 Conclusions and Recommendations

5.1 Research Conclusions

Learning-Oriented Social Media Use Has a Significant Positive Effect on Learning Engagement Among Secondary Vocational Students. The results show that Learning-oriented social media use has a significant positive effect on vocational students' learning engagement. Results show a significant positive correlation between them ($p < 0.01$), consistent with previous studies, indicating that such use effectively improves students' cognitive, behavioral and emotional engagement. Using social media for knowledge review, professional information search and learning problem-solving enhances students' learning resilience, classroom enthusiasm and willingness to interact with teachers, reflecting deeper emotional engagement and clearer learning goals.

Self-Worth Plays a Positive Moderating Role in the Relationship Between Learning-Oriented Social Media Use and Learning Engagement. Hierarchical regression and PROCESS mediation analyses fully supported Hypothesis H2: competence, affective, and social self-worth all significantly and positively moderate the relationship between learning-oriented social media use and vocational students' learning engagement via partial mediation, with distinct contribution differences. Learning-oriented social media use positively predicted learning engagement alone and remained significant after adding self-worth dimensions, with social self-worth having the strongest predictive power; Bootstrap tests confirmed all indirect effects were significant. Overall, self-worth enhances the positive effect of learning-oriented social media use on vocational students' learning engagement, with the moderating contribution order: social self-worth > competence self-worth > affective self-worth.

5.2 Research Recommendations

Based on the findings and characteristics of vocational education and students, we propose the following recommendations:

From the Perspective of School Education Management. Schools can establish guidelines for learning-oriented social media use and build dedicated intelligent learning platforms integrating resource sharing, online interaction, progress display and AI tutoring, guiding students to focus on learning rather than entertainment. Self-worth cultivation should be integrated into mental health education through courses or group counseling to improve students' social cooperation, self-efficacy and career expectations. A home-school collaboration platform can be built for real-time monitoring and parental emotional support to further enhance students' self-worth. (as shown in Fig. 4)

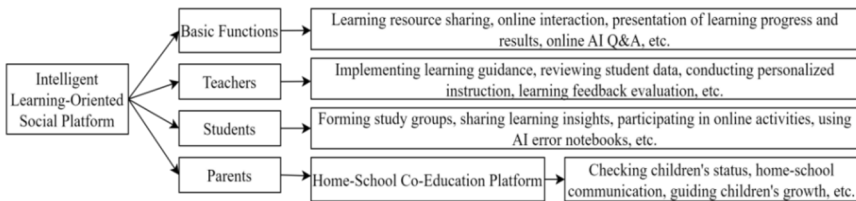


Fig. 4. Schematic Diagram of the Functions of the Intelligent Learning-Oriented Social Platform

From the Perspective of Teachers' Instruction. Teachers can use intelligent learning platforms for online discussions, resource sharing and group work, assign preview materials, organize after-class Q&A and implement project-based learning. Based on platform data, teachers can provide personalized guidance: encourage online interaction for students with low social self-worth, enhance confidence via achievement display for those with insufficient competence self-worth, and offer emotional support and positive feedback for students with low affective self-worth.

From the Perspective of Individual Students. Students should reasonably control social media use and formulate study plans. They can use learning platforms to obtain

resources, participate in academic discussions and communicate with teachers to improve social self-worth. By setting staged goals and accumulating achievements, students can affirm their own value, and use AI error notebooks to track progress and strengthen competence and affective self-worth.

From the Perspective of Family Support. Parents should change their attitudes toward social media, guide rational use and encourage learning-oriented application instead of prohibition, and monitor students' online learning via home-school platforms. Parents should cultivate children's self-worth through affirmation and encouragement, support their online learning and virtual social activities, help them establish positive self-cognition and career goals, and form a home-school collaborative education atmosphere.

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