The Influence of Emotional Competencies on Student Engagement in Online Learning: What Role Do Students' Emotional Competencies Play in Online Learning?

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In the context of online education, this study examines the relationship between students' emotional competencies and their engagement in learning activities. Using the Social Emotional Competence Questionnaire (SECQ) and the Online Student Engagement (OSE) scale, data were gathered from 32 undergraduate students in a blended learning course. Correlation and multiple regression analyses revealed a significant positive relationship between emotional competencies and engagement in online learning, particularly highlighting the roles of self-awareness and self-management. These two competencies were primary predictors, collectively accounting for 48.2% of the variance in engagement levels. The findings emphasize the importance of fostering emotional competencies to enhance student engagement and support successful learning experiences in online environments. This study offers insights into the design of emotionally supportive online learning environments that promote engagement and overall academic success.

Introduction

In the rapidly evolving landscape of online education, it is crucial to understand and examine various roles, aspects and factors that contribute to providing students with meaningful learning experiences. Among these, addressing the emotional dimensions of online education become more and more paramount, as students rely on self-awareness and self-regulation to maintain motivation and engagement in this learning environment. In response to this, various studies have recently examined the role of emotional competencies in online learning, as they provide nuanced understanding of how learners perceive the situations and thus determine their behaviors in social environments such as the online learning environment where students collectively engage in learning despite being physically isolated. Berenson et al. (2008) examined the extent to which students' emotional intelligence predicted the student academic success. They found that emotional intelligence, which is one's ability to recognize, understand, manage, and utilize emotions effectively in oneself and others, was the primary predictor of academic success in online courses. Buzdar et all. (2016) also found that student emotional intelligence has large significant effects on the students' readiness for online learning, which an individual possesses the necessary attributes, skills, and resources to effectively engage in and benefit from online learning experiences.

In addition, numerous studies also reported that emotional competencies help minimize various stressors of online learning, thereby fostering a more positive learning experience (Alam et al., 2021; Kumpikaitė-Valiūnienė et al., 2021; Por et al., 2011; Vucenovic, 2023). Furthermore, emotional competences contribute to the development of essential social skills, enabling students to engage in collaborative online activities, communicate effectively with peers and instructors, and build supportive

learning communities (Teeple & Benolken, 2023). Consequently, fostering emotional competence among students is essential for promoting their learning experiences and academic success in online learning environments.

While many studies have reported the connection between emotional competence and academic success in online learning environments, this study aims to explore the specific mechanisms through which emotional competencies influence students' engagement with online learning. By focusing explicitly on the relationship between emotional competence and learning engagement, this study seeks to uncover nuanced insights into how emotional competencies impact students' motivation, participation, and overall investment in their online learning experiences. The result of this investigation could inform the design of more supportive online learning environments conductive to student success.

Emotional competencies: A determinant for success in online learning

While there are many studies examining and defining emotional competencies, current literature suggests that emotional competencies consist of the following five competencies: self-awareness, self-management, social awareness, and responsible decision-making that help foster interpersonal and intrapersonal learning and cognitive competence (Greenberg et al., 2003; Jones & Doolittle, 2017). In essence, emotional competence refers to one's ability to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (Denham et al., 2015; Weissberg et al., 2015). Research underscores the pivotal role of emotional competencies in students' academic, personal, and social success, enabling effective functioning in diverse social contexts (Ahmed, 2020; Halimi et al., 2021; Newman & Dusenbury, 2015; Oberle, 2014). Several studies have reported that student emotional competence serves as an essential factor for promoting positive learning behaviors, thereby contributing to academic success (see e.g., Alzahrani et al., 2019; Ray et al., 2020). Moreover, emotional competencies influence individuals' efforts and persistence in academic tasks (see e.g., Thomas, & Allen, 2021; Zhang et al., 2022). Wang et al. (2023) found that having high emotional competence could make learners more resilient and help them learn more effectively online. Teeple and Benolken (2023) examined the relationship between social-emotional competencies and student performance in online learning environments with the special focus on students in elementary or primary school settings. They found that there is a positive relationship between student social-emotional competencies and student grades on a summative performance task, calling for the application of specific teaching strategies and practices in online learning environments in order to support student motivation, engagement, and performance.

Engagement in online learning environments facilitates learner independence and academic success and is directly related to achieving positive academic outcomes. In this, numerous studies have explored emotional engagement in online learning. Santos et al. (2023) conducted a cross-cultural study to examine the role of social and emotional learning competencies on student engagement. They found that social and emotional competencies were relevant predictors of student engagement independently of the country-level variables. In light of emerging research evidence regarding the impact of emotion on student engagement, Pentaraki et al. (2017) conducted a comprehensive literature review to analyze the role of emotions in students' engagement in online learning. They concluded that emotion are significant factors in students' engagement in online learning while cognitive and behavioral factors function as antecedents of emotion in online context.

In summary, the reviewed studies collectively affirm that emotional competencies are decisive factor for success in online learning. They underscore the pivotal role of emotional competence in online learning success, emphasizing the importance of cultivating self-awareness, self-management, social awareness, and responsible decision-making skills. Integrating explicit instruction in these competencies can empower students to navigate online learning environments effectively and achieve their academic goals.

Methods

Context and Participants

The research context was an undergraduate course offered at a mid-sized public university in the United States of America. Two sections of the undergraduate course on technology in education were analyzed to explore the impact of students' emotional competencies on their engagement in online learning. This course was taught in a blended (face-to-face and online) model. Thirty-two students from these sections gave their permission to examine the role of emotional competencies on their engagement in online learning; only these students were involved as participants in this study. The participants, aged between 21-23 years, comprised 72% females and 28 % males, with the most common ethnicity being White/Caucasian.

Data analysis

To examine participants' emotional competencies, Zhou (2012)'s Social Emotional Competence Questionnaire (SECQ) was employed. In addition, to examine participants' engagement in online learning, Dixson (2015)'s The Online Student Engagement (OSE) scale was employed. Data were collected via online survey after the entire semester has done. With this dataset, a correlation analysis was performed to examine the relationship between emotional competencies and engagement in online learning. A multiple regression analysis with stepwise selection was also performed so as to identify which variables better predict learners' engagement in online learning.

Findings

To investigate the relationship between emotional competencies and engagement in online learning, a correlation analysis was performed. The results revealed a significant positive correlation, with a correlation coefficient of.679 ($p < .001$), indicating a strong relationship between emotional competencies and engagement in online learning. Subsequently, to identify contributors to the prediction of engagement in online learning, a multiple regression analysis was performed with engagement in online learning as a dependent variable and five factors of emotional competencies as independent variables. The independent variables were selected using a stepwise selection method. The results of the analysis, presented in Table 1, showed that the regression model predicted 48.2% of the total variation of engagement in online learning with the value of $F(2,29) = 15.442$, the p-value $< .0001$ (see Table 1). However, this included the two variables of 'Self Awareness' and 'Self-Management', and excluded non-significant variables, which were 'Social Awareness', 'Relationship Management', and 'Responsible Decision-Making'. Results of the analysis for emotional competencies' contributions towards engagement in online learning and their statistical significance, as shown in Table 2, showed that independent variables significantly affecting engagement in online learning were 'Self Awareness' ($t = 2.873$, $p = .008$) and 'Self-Management' ($t = 2.181$, $p = .037$). The predictive variables on engagement in online learning turned out to be, in order, 'Self Awareness' ($\beta = .458$) and 'Self-Management ($\beta = .347$).

Table 1

Anova Table of Regression Model (n=32)

Source	df	Sum of Squares	Mean Square	F	p
Regression	2	1266.066	633.033	15.442	.000
Residual	29	1188.809	40.993		

Total	31	2454.875

R2(adj. R2) = .516(.482)

Table 2

The Result of Multiple Regression Analysis on Engagement in Online Learning (n = 32)

Variable	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**p**
	B	Standard Error	Beta		
Constant	25.047	10.258		2.442	.021
Self-Awareness	2.110	.734	.458	2.873	.008
Self-Management	.840	.385	.347	2.181	.037

Discussion and Conclusions

The findings of this study underscore the significant influence of learners' emotional competencies on their engagement in online learning. Through correlation and multiple regression analyses, it was revealed that emotional competencies, particularly self-awareness and self-management, play crucial roles in predicting engagement levels in online learning environments. The strong positive correlation between emotional competencies and engagement suggests that learners with higher levels of emotional competence tend to exhibit greater engagement in online learning activities. Furthermore, the multiple regression analysis demonstrated that self-awareness and self-management were the primary contributors to the prediction of engagement, explaining 48.2% of the total variation. These results highlight the importance of fostering emotional competencies, such as self-awareness and self-management, among learners to enhance their engagement and overall success in online learning contexts. By recognizing and addressing these key emotional competencies, educators and instructional designers can develop strategies and interventions aimed at promoting more effective and fulfilling online learning experiences for learners.

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