

# Explore the Impacts of Interactions in Online Discussion Forums on Student Engagement and Belongingness

**Abstract:** This study discusses the relationship between students' interactions with instructors, peers, and platforms of engagement and belongingness on online forums. Data analysis shows that interactions between instructors and students are significantly related to engagement; interactions between students and platforms are significantly related to belongingness. These findings can provide strategies for the use and improvement of online forums.

Add a new discussion post

Subject

Introduction & background

Message

🔽 A B I ☰ ☰ 🔗 🔄 🖼️ 📄 🎤 🎥 📎 ✕

The research intends to explore the impact of online discussion forum interactive behaviours on engagement and belongingness from students' perspectives.

The study's findings are intended to provide instructors with strategies for increasing student engagement and belonging, as well as references for online discussion forum research and development for education product developers, researchers, and designers.

**Background:** The purpose of online education tools was mainly to transmit information a decade ago (Hamuy and Galaz, 2010), but today's online education regards interaction as a critical component of online learning. And in real teaching situations, the majority of students do not use the forum voluntarily, and online discussion forums have a low utilisation rate and efficiency.

Post to forum



by Wei ZHUANG - Tuesday, 24 August 2021, 11:00 AM

## Literature Review & Theoretical Framework

The majority of previous research has concentrated on the following perspectives: comparing face-to-face and online discussions (Meyer, 2019), the role of lecturers in online forums (Mazzolini and Maddison, 2007), student interaction in a virtual environment (Pena-Shaff and Nicholls, 2004), and the evaluation strategy of the discussion contents (Gaytan, 2007).

**Theoretical framework:** Constructivism Learning Theory, Social Presence Theory, Hierarchical Theory of Needs

**RQ1/2/3.** What are the impacts of the frequency of instructors-students, students-students interactions, and personal experience of platforms-students interactions in online discussion forums on students' engagement and belongingness?

## Methodology

The study used both quantitative and qualitative approaches. A mixed methods study can provide a more comprehensive picture than a single quantitative or qualitative study (Olsen, Haralambos and Holborn, 2004).

**Quantitative method:** Questionnaire (Likert scale oriented), Simple random sampling, Target group: current university students, whose current level of education is undergraduate, postgraduate, doctor. Reliability and validity test, Descriptive statistics, Simple linear regression model, Multicollinearity, Program: SPSS.

**Qualitative method:** current university students + who used online learning forums, Online interview, Semi-structured, Thematic content analysis, Narrative analysis.

## Results & Discussion

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.640 <sup>a</sup>	0.270	0.207	0.5539

a. Predictors: (Constant), Platforms-students, Instructors-students, Students-students

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	14.974	3	4.991	16.271	0.000 <sup>b</sup>
	Residual	53.064	173	0.307		
	Total	68.040	176			

a. Dependent Variable: Engagement

b. Predictors: (Constant), Platforms-students, Instructors-students, Students-students

Coefficients <sup>a</sup>						
Model	R	Std. Error	Unstandardized Coefficients		t	Sig.
			Beta	Std. Error		
1	(Constant)	0.885	0.820		2.750	0.006
	Instructors-students	0.233	0.077	0.228	3.026	0.003
	Students-students	0.220	0.067	0.252	3.284	0.001
	Platforms-students	0.125	0.080	0.121	1.567	0.119

a. Dependent Variable: Engagement

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.640 <sup>a</sup>	0.170	0.139	0.5652

a. Predictors: (Constant), Platforms-students, Instructors-students, Students-students

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	32.475	3	10.825	33.888	0.000 <sup>b</sup>
	Residual	55.261	173	0.319		
	Total	87.736	176			

a. Dependent Variable: Belongingness

b. Predictors: (Constant), Platforms-students, Instructors-students, Students-students

Coefficients <sup>a</sup>						
Model	R	Std. Error	Unstandardized Coefficients		t	Sig.
			Beta	Std. Error		
1	(Constant)	0.454	0.326		1.393	0.165
	Instructors-students	0.137	0.079	0.119	1.751	0.082
	Students-students	0.379	0.068	0.381	5.535	0.000
	Platforms-students	0.309	0.082	0.262	3.791	0.000

a. Dependent Variable: Belongingness

**Quantitative results:** The significances of instructors-students and students-students are less than 0.05, and the regression coefficients are greater than 0, indicating a significant positive effect on engagement. The significances of students-students and platforms-students are less than 0.05 and the regression coefficients are greater than 0, indicating a significant positive effect on belongingness.

**Qualitative results:** 9/12 students said that personal experience on the platforms affected belonging and engagement.

## Conclusion & Future Research

**Engagement:** interaction with instructors and peers can best stimulate students' engagement, especially when teachers evaluate or rate students' performance in forums and have extensive discussions and explorations with students.

**Belonging:** students are more affected by peer interactions and platform usage than instructors.

**Methodological limitation:** sample size was small / Participants used different online discussion platforms.

**Future research:** focus on blended courses (in different learning environments); the perspective of instructors; specific major categories.

Permalink Reply