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The Role of Value Co-Creation in Shaping Perceived Learning Outcomes: A Study on Online Language Course Participants in Indonesia

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***Abstract*—*As online language learning continues to expand, fostering meaningful tutor-learner relationships has become increasingly important for improving learning outcomes. This study examines how relationship quality influences perceived learning outcomes through the sequential roles of online learning engagement and value co-creation. A quantitative survey was conducted with 115 Indonesian participants who had attended online language courses with live tutor interaction. Structural Equation Modeling (SEM) was employed to test the proposed model. The results show that relationship quality positively influences all four dimensions of online learning engagement. However, only social and emotional engagement significantly contribute to value co-creation, which subsequently enhances perceived learning outcomes. These findings reveal that relationship quality improves learning outcomes primarily by stimulating affective and interpersonal engagement that encourages collaborative value creation. The study contributes by integrating relationship quality, multidimensional engagement, and value co-creation into a sequential mediation framework for explaining learning outcomes in online language education.*

Keywords*—*Relationship quality; Online learning engagement; Value co-creation; Perceived learning outcomes

I. INTRODUCTION

The rapid advancement of digital technologies has transformed language education by enabling learners to participate in online courses regardless of geographical boundaries [1]. Virtual learning platforms such as Zoom and Google Meet facilitate real-time interaction between learners and tutors, making online language learning increasingly accessible and interactive [2], [3]. As these platforms continue to evolve, educational providers are shifting their focus beyond technological capabilities toward creating meaningful learning experiences that enhance learner participation and outcomes [4]. Among the factors shaping these experiences, relationship quality has gained increasing attention as meaningful interactions between tutors and learners can encourage active participation in the learning process [1], [5]. Rather than serving as passive recipients of instructional content, learners increasingly engage behaviorally, socially, cognitively, and emotionally while collaborating with tutors and peers to co-create learning value. Such collaborative experiences are expected to enhance learners' perceived learning outcomes [1], [4], [6]. Although previous studies have widely examined technology acceptance, learner satisfaction, and online learning effectiveness, limited research has explained how Relationship Quality contributes to Perceived Learning Outcomes. While positive tutor–learner relationships encourage learner involvement, learning outcomes are developed through interactions in which learners and instructors jointly create value. However, Online Learning Engagement and Value Co-creation have largely been examined separately, leaving the mechanism linking Relationship Quality to Perceived Learning Outcomes insufficiently understood. To address this gap, this study examines how Relationship Quality influences Perceived Learning Outcomes through the mediating roles of Online Learning Engagement and Value Co-creation. This study contributes to the literature by integrating Relationship Quality, multidimensional Online Learning Engagement, and Value Co-creation into a single research model. In doing so, it offers a more comprehensive explanation of how tutor–learner relationships foster collaborative learning and improve Perceived Learning Outcomes in online language education.

II. LITERATURE REVIEW

Value co-creation [7], [8] in online learning environments represents collaborative processes through which learners, instructors, and digital learning platforms jointly contribute to educational experiences and outcomes [1], [3]. Rather than passively consuming instructional materials, students actively shape their own learning through two-ways communication as collaborative problem-solving measures [2]. Such interactions allow learners to integrate knowledge from multiple sources while receiving personalized guidance that supports deeper understanding of course content [1], [2]. This perspective suggests that meaningful learning emerges through active participation and social interaction rather than passive knowledge acquisition. As learners become increasingly involved in co-creating value throughout the learning process, they are expected

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to perceive greater improvements in their knowledge, skills, learning efficiency, and overall competence. Therefore, value co-creation is expected to positively influence perceived learning outcomes [4], [9].

In online learning environments, participants' engagement represents the degree to which students actively invest their behavioral, social, cognitive, and emotional efforts during the learning process [1], [10]. However, engagement alone does not necessarily create educational value unless learners actively collaborate with instructors and peers [3], [6]. The Service-Dominant Logic [11] argues that value is jointly created through interactions among multiple actors rather than being delivered unilaterally by service providers. Within online language learning, students contribute to value creation by providing constructive feedback and supporting collaborative learning activities. Students who demonstrate stronger behavioral engagement are more likely to participate consistently in learning activities, while socially engaged learners contribute through interactions with instructors and classmates [3], [4]. Likewise, cognitively engaged learners invest greater mental effort in knowledge construction, whereas emotionally engaged learners display enthusiasm and sustained motivation that encourage continued participation[1]. These types of engagement facilitate students' involvement in value co-creation throughout the online learning experience. Relationship quality reflects the overall strength of interactions between learners and their instructors through trust, commitment, and satisfaction [9], [10]. Within online language learning environments, these relational dimensions become increasingly important because effective learning depends not only on instructional content but also on continuous supportive interactions throughout the learning process. Though the lens of Social Exchange Theory, individuals are more willing to reciprocate positive treatment by investing greater effort in ongoing relationships [12]. When learners perceive their instructors as trustworthy, committed to their progress, and capable of delivering satisfying learning experiences, they are more likely to invest greater cognitive effort to participate actively during online classes and develop positive emotional responses toward learning [13]. These mechanisms act as the main determinants in factoring learners' engagement into the degree of value that will be co-created to how they perceive the learning outcomes. The proposed sequential mediation is grounded in the complementary perspectives of Social Exchange Theory and Service-Dominant Logic. Social Exchange Theory suggests that learners reciprocate positive relational experiences by investing greater behavioral, social, cognitive, and emotional effort into the learning process [12]. However, engagement alone does not necessarily generate educational value. From the perspective of Service-Dominant Logic, value emerges when learners actively interact, exchange knowledge, and integrate resources with instructors and peers [11]. Consequently, online learning engagement is conceptualized as the behavioral foundation that enables value co-creation, which subsequently enhances perceived learning outcomes. Accordingly, relationship quality is expected to influence learning outcomes indirectly through the sequential roles of online learning engagement and value co-creation. Fig 1 illustrates our proposed conceptual framework analysis.

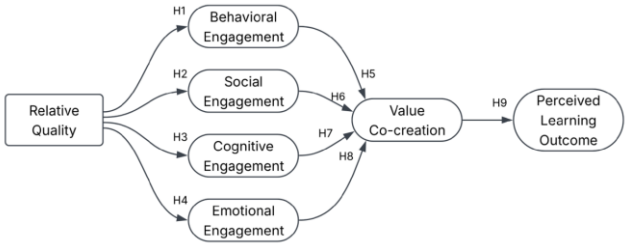


Fig. 1. Conceptual Framework Analysis

Based on the preceding discussion, the following hypotheses are proposed:

H1: *Relationship quality positively influences behavioral engagement.*
H2: *Relationship quality positively influences social engagement.*
H3: *Relationship quality positively influences cognitive engagement.*
H4*: Relationship quality positively influences emotional engagement.*
H5*: Behavioral engagement positively influences value co-creation.*
H6: *Social engagement positively influences value co-creation.*
H7: *Cognitive engagement positively influences value co-creation.*
H8: *Emotional engagement positively influences value co-creation.*
H9: *Value co-creation positively influences perceived learning outcomes.*

III. METHODOLOGY

This study employs a quantitative approach using a structured close-ended questionnaire and purposive non-probability sampling to examine the proposed relationships among the research variables [14], [15]. The target respondents are individuals in Indonesia who have participated in an online language course with live tutor interaction within the previous twelve months and completed at least four learning sessions. The courses include both general language learning and language proficiency preparation, such as IELTS and TOEFL. The minimum sample size was determined based on the 5:1 sample-to-item ratio recommended by Hair et al. [14], which suggests a minimum of five observations for each measurement indicator in multivariate analysis. With 23 indicators included in the research model, at least 115 respondents were required. Structural Equation Modeling (SEM) was employed to test proposed hypotheses, because our model involves multiple latent constructs connected through sequential mediating relationships [14], [15]. This study assumes a 95% confidence level. Hypotheses will be considered statistically significant only when the p-value does not exceed the 5% significance level ($\alpha = 0.05$). As all hypotheses propose positive relationships, one-tailed hypothesis testing is employed, and paths with p-values greater than 0.05 are treated as non-significant.

IV. FINDINGS AND DISCUSSION

Data were collected in June-July 2026 via an online questionnaire using Google Forms. Of the 119 responses received, 115 were valid after excluding respondents who did not meet the eligibility criteria, including those without live tutor interaction, fewer than four completed sessions, or use of self-directed applications without tutor involvement. The sample was predominantly female (82.6%) and aged 21-25 years (72.2%), with most respondents holding undergraduate qualifications (S1/D4). English was the most frequently studied language, followed by German, Japanese, Korean, and Mandarin. Most respondents had been enrolled for three to six months (40.9%) and attended sessions two to three times per week (71.3%). Monthly expenditure ranged most commonly between Rp200,000 and Rp500,000 (42.6%), reflecting the mid-range pricing of online language courses in Indonesia.

Table 1.
Construct and Measurement Assessment

Variables	Items	Outer Loading	Cα	AVE	CR Rho_c
Relative Quality	RQ1T	0,765	0,630	0,577	0,797
	RQ2S	0,702			
	RQ3C	0,789			
Behavioral Engagement	BE1	0,689	0,632	0,580	0,777
	BE2	0,836			
	BE3	0,670			
Social Engagement	SE1	0,623	0,657	0,598	0,801
	SE2	0,857			
	SE3	0,779			
Cognitive Engagement	CE1	0,778	0,665	0,601	0,804
	CE2	0,834			
	CE3	0,664			
Emotional Engagement	EE1	0,669	0,622	0,573	0,813
	EE2	0,795			
	EE3	0,837			
Value Co-Creation	VCC1	0,776	0,788	0,613	0,853
	VCC2	0,755			
	VCC3	0,840			
	VCC4	0,702			
Perceived Learning Outcome	PLO1	0,703	0,798	0,624	0,838
	PLO2	0,823			
	PLO3	0,781			
	PLO4	0,693			

The PLS algorithm was applied using SmartPLS 4 to assess the measurement model. As shown in Table 1, all indicators demonstrate satisfactory outer loadings, while Cronbach's alpha (Cα), Composite Reliability (Rho_c), and Average Variance Extracted (AVE) confirm acceptable internal consistency and convergent validity. These results indicate that the measurement model is valid and reliable for hypothesis testing. Table 2 also shows satisfactory discriminant validity, with all matrices below the recommended threshold of 0.85 [14].

Table 2.
Discriminant Validity — Fornell-Larcker Criterion

	BE	CE	EE	PLO	RQ	SE	VCC
BE	0,735						
CE	0,570	0,762					
EE	0,419	0,521	0,770				
PLO	0,502	0,530	0,511	0,752			
RQ	0,507	0,567	0,528	0,536	0,753		

	BE	CE	EE	PLO	RQ	SE	VCC
SE	0,432	0,415	0,508	0,375	0,423	0,759	
VCC	0,373	0,388	0,484	0,403	0,487	0,445	0,770

Path analysis was conducted using the bootstrapping procedure with 5,000 bootstrap subsamples, applying a one-tailed significance test at a 95% confidence level to reflect the directional nature of the proposed hypotheses. Therefore, paths with $p < 0.050$ were considered statistically significant.

Table 3.
Total Effects

Path	CI 5,0%	CI 95,0%	P values
BE -> PLO	-0,040	0,130	0,193
BE -> VCC	-0,106	0,306	0,187
CE -> PLO	-0,040	0,132	0,251
CE -> VCC	-0,102	0,318	0,246
EE -> PLO	0,010	0,237	0,052
EE -> VCC	0,033	0,494	0,024
RQ -> BE	0,339	0,647	0,000
RQ -> CE	0,438	0,673	0,000
RQ -> EE	0,401	0,644	0,000
RQ -> PLO	0,066	0,230	0,003
RQ -> SE	0,282	0,548	0,000
RQ -> VCC	0,244	0,456	0,000
SE -> PLO	0,010	0,169	0,036
SE -> VCC	0,025	0,415	0,034
VCC -> PLO	0,240	0,544	0,000
RQ -> SE -> VCC -> PLO	0,004	0,081	0,061
SE -> VCC -> PLO	0,010	0,169	0,036
RQ -> EE -> VCC -> PLO	0,005	0,136	0,071
RQ -> CE -> VCC -> PLO	-0,022	0,077	0,258
RQ -> SE -> VCC	0,009	0,193	0,048
RQ -> BE -> VCC -> PLO	-0,018	0,077	0,216
RQ -> EE -> VCC	0,016	0,280	0,034
RQ -> CE -> VCC	-0,055	0,186	0,249
RQ -> BE -> VCC	-0,045	0,178	0,208
BE -> VCC -> PLO	-0,040	0,130	0,193
CE -> VCC -> PLO	-0,040	0,132	0,251
EE -> VCC -> PLO	0,010	0,237	0,052

Relationship Quality significantly influences all engagement dimensions, Value Co-creation, and Perceived Learning Outcome. However, only Social Engagement and Emotional Engagement significantly enhance Value Co-creation, while Behavioral Engagement and Cognitive Engagement show no significant effects. Value Co-creation also improves Perceived Learning Outcome and mediates the effects of Social Engagement and Emotional Engagement. Furthermore, Relationship Quality indirectly influences Perceived Learning Outcome through Social Engagement and Value Co-creation.

Table 4.
R-Square

Variables	R-square
BE	0,257
CE	0,322
EE	0,279
PLO	0,162
SE	0,179
VCC	0,308

Table 4 presents the structural model weak to moderate explanatory power [14], with R^2 values ranging from 0.162 to 0.322. Figure 2 presents the structural model and supports seven of the nine proposed hypotheses. Relationship Quality significantly enhances all engagement dimensions, whereas only Social Engagement and Emotional Engagement contribute to Value Co-creation, which improves Perceived Learning Outcome.

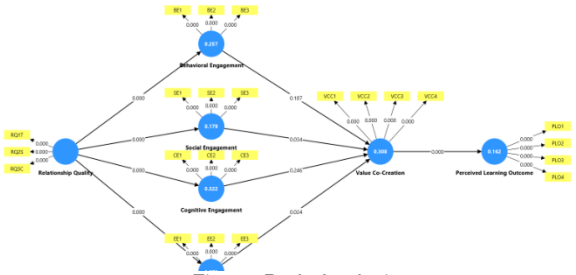


Fig. 2. Path Analysis

Table 5 presents hypothesis testing along with effect sizes (f-square). Relationship Quality exhibits medium to large effect sizes on all engagement dimensions, indicating its substantial contribution to learner engagement. In contrast, Behavioral Engagement, Cognitive Engagement, Emotional Engagement, and Social Engagement show relatively small effects on Value Co-creation, while Value Co-creation has a medium effect on Perceived Learning Outcome.

Table 5.
Hypotheses Testing

	Description	F-Square	P-Value	Decision
H1	RQ -> BE	0,345	0,000	Supported
H2	RQ -> SE	0,217	0,000	Supported

	Description	F-Square	P-Value	Decision
H3	RQ -> CE	0,475	0,000	Supported
H4	RQ -> EE	0,387	0,000	Supported
H5	BE -> VCC	0,011	0,084	Not supported
H6	SE -> VCC	0,047	0,019	Supported
H7	CE -> VCC	0,006	0,209	Not supported
H8	EE -> VCC	0,071	0,028	Supported
H9	VCC -> PLO	0,194	0,000	Supported

The significant influence of relationship quality on all four dimensions of engagement (H1-H4) aligns with Social Exchange Theory, which posits that individuals reciprocate positive relational treatment with greater effort and involvement [12]. When learners perceive their tutors as trustworthy, committed, and satisfying, they are more inclined to invest behavioral, social, cognitive, and emotional resources into the learning process [6], [13]. This finding reinforces the central role of interpersonal relationships in shaping learner engagement within online language learning environments, where physical distance makes relational cues particularly significant. However, only Social Engagement (H6) and Emotional Engagement (H8) significantly contributed to Value Co-creation, suggesting that value is created through interaction rather than individual effort. Learners may attend classes, complete assignments, and understand the course materials, but these activities often remain personal achievements. In many online language courses, particularly those involving asynchronous learning, participation tends to focus on completing required tasks instead of exchanging ideas or collaborating with others. This may explain why Behavioral Engagement (H5) and Cognitive Engagement (H7) did not significantly influence Value Co-creation. By contrast, value is more likely to emerge through meaningful interaction with tutors and peers than through active participation alone. The findings suggest that active participation alone is insufficient to create value in online language learning. Students may attend classes, complete assignments, and understand the course materials, but these activities often remain individual rather than collaborative. This may reflect the nature of online learning, where asynchronous activities encourage learners to complete tasks independently with limited interaction. Over time, online learning fatigue may further reduce learners' willingness to engage beyond the minimum course requirements. As a result, behavioral and cognitive efforts are directed toward completing tasks rather than exchanging ideas, providing feedback, or collaboratively creating learning value. The positive effect of Value Co-creation on Perceived Learning Outcome (H9) supports Service-Dominant Logic, which views learning value as co-created through interactions rather than passively received [11]. Learners who actively co-create report better language performance and competence [4], [9]. Therefore, online language providers should promote collaborative activities and learner interaction instead of relying solely on content delivery. Our findings suggest that value in online language learning is created through meaningful human interaction rather than individual participation alone. Learners benefit most when positive relationships with tutors encourage them to communicate, collaborate, and exchange ideas with others. This implies that the quality of interaction, reflected in social involvement and emotional connection, plays a more important role in improving learning outcomes than simply completing learning activities or participating more frequently.

V. CONCLUSION

This study examined how Relationship Quality influences Perceived Learning Outcomes through Online Learning Engagement and Value Co-creation among online language course participants in Indonesia. The findings show that Relationship Quality positively influences all dimensions of engagement, while only Social Engagement and Emotional Engagement significantly enhance Value Co-creation. Value Co-creation also positively influences Perceived Learning Outcomes, with Relationship Quality exerting an indirect effect through the sequential pathway of Social Engagement and Value Co-creation. Overall, the findings highlight the importance of meaningful learner interaction in improving online learning experiences. This study has several limitations. First, it examined engagement at an aggregate level without accounting for differences in instructional approaches or interaction formats, which may influence value co-creation. Second, the use of purposive non-probability sampling limits the generalizability of the findings. Third, the study relied on self-reported data, which may be subject to response bias. Future research should examine the conditions under which Behavioral Engagement and Cognitive Engagement contribute to Value Co-creation, employ probability sampling to improve generalizability, and incorporate additional variables to better explain Perceived Learning Outcomes.

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