The importance of student engagement lies in its correlation with their academic success, perseverance in learning, and overall achievement. However, many students, especially non-native English-speaking students, may not be engaged in writing classes because writing can be more challenging to master than other language skills. This lack of engagement may result in low interest, low academic achievement, and a high dropout rate. Guided by a task engagement framework, the current study explores how students studying in their second language engage in a blended writing class that employs both synchronous and asynchronous learning formats. This descriptive case study uses a qualitative methodological method integrated with a numeric rating scale. The participants were an American instructor and 30 non-native English-speaking undergraduate students in two sections of an English writing course. Data sources included ten surveys of online task engagement and follow-up email-based interview responses. The descriptive data (open-ended questions and interviews) were coded according to the theoretical framework and the closed-ended questions were analyzed with descriptive statistics. The results indicate that, on average, most students perceived Authenticity, Learning Support, and Autonomy positively, while Interest and Challenge were at a moderate level, and Social Interaction existed at a low level in all 10 synchronous and synchronous writing tasks. The findings also show that Authenticity was the most frequently mentioned TE facilitator and received the highest average score of responses, whereas Social Interaction received the lowest average score of responses among the six facilitators across the 10 online writing tasks. Furthermore, most of the students reported that they felt engaged when the writing tasks they were doing were useful and valuable to them and were applicable to their future, and when they received support from peers and teachers, had enough time to complete the task, and had more control over their writing. This study concludes that, in general, most students perceived that they were moderately engaged in all 10 synchronous and asynchronous writing tasks; however, there were always some students who were not engaged. The current study provides information about both task engagement and online learning combining synchronous and asynchronous formats. It enhances the understanding of student engagement during synchronous and asynchronous writing tasks. The results of this study also offer educators both a wider and deeper view of student perceptions of task engagement facilitators, particularly in online learning. Additionally, the implications of this study include recommendations to enhance teaching practices and future research on task engagement.