

# The Development of a Full Online Flipped Classroom Instructional Model for Enhancement of Engineering Students' English Meeting Skills and Learning Engagement

Piyatida Changpueng<sup>a</sup>, and Fasawang Pattanapichet<sup>b\*</sup>

<sup>a</sup> King Mongkut's University of Technology North Bangkok, Bangkok, Thailand

<sup>b</sup> Bangkok University, Bangkok, Thailand

*\*Corresponding author: fasawang.p@bu.ac.th*

## Article information

### Abstract

The flipped classroom instructional approach gained popularity after the COVID-19 pandemic, which significantly disrupted language instruction. This study aimed to evaluate the effectiveness of a full online flipped classroom instructional model to enhance students' meeting skills and their engagement. The model consisted of two lessons: group meeting skills and writing the minutes of meetings. The participants comprised 48 third-year undergraduate engineering students from a public university in Thailand. The study utilized the KW#4 principle to compare average scores of passing students in formative and summative assessments, and to analyze pre-test and post-test scores, aiming to evaluate the model's impact on students' meeting skills. Student engagement (affective, behavioral, and cognitive) was examined using a questionnaire and semi-structured interviews. The results showed that the model was effective, as the post-test scores were significantly higher than the pre-test scores. Further, the results from the KW#4 revealed that the model was effective since the effectiveness of criterion learning (formative and summative tests' average percentage) in using