# The Effects of Collaborative Online International Learning (COIL) on Intercultural Sensitivity

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## [Introduction]

Collaborative Online International Learning (COIL) is an innovative pedagogy that fosters global engagement of students in university classes in different countries through technologies. Although the recent COVID-19 pandemic has severely restricted the study abroad opportunities, COIL provides a safe and infection-risk-free "virtual" study abroad experience. COIL is a relatively new pedagogy, and the effects of COIL on development of intercultural sensitivity and cross-cultural understanding is not well known. The objective of this study is to observe the changes of degrees on intercultural sensitivity as a result of COIL.

### [Method]

This study was approved as exempt (STUDY00012703) by the Internal Review Board (IRB) of the University of Washington (UW) and was approved by Medical Research Ethics Committee at the Tokyo Medical and Dental University (TMDU) (No. M2020-298-01). Participants were informed that the participation and answers in the survey would not be used for students' evaluation. The study design was quasi-experimental. The participants were the students enrolled in a course titled Resilience & Mental Health at UW (n = 48) and Practicum of English for Nursing at TMDU (n = 8). They filled out the Intercultural Sensitivity Scale (ISS) (Chen & Starosta, 2000) at the beginning and the end of the Spring 2021 Quarter/Semester. The overall ISS score ranges between 24 and 120 with higher scores indicating greater intercultural competency. ISS has five subscales (interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness). Students from both universities learned about each other through a variety of COIL activities, such as online discussions using Padlet, Zoom meetings (90 minutes × 4 times) with short lectures about resilience and culture by instructors and breakout room discussion, and Google Sites final collaborative projects. Three Chinese graduate students from TMDU participated in the COIL as facilitators. Instructors at UW and TMDU were both Japanese. No translation or interpretation were provided. The change of ISS from before to after the class was analyzed using paired t-test in each university after confirming normal distribution of the scores by Shapiro-Wilk's test (p > .05).

### [Results]

All 48 UW students and 8 TMDU students completed the pre-survey, and 44 UW students (91.7%) and 7 TMDU students (87.5%) filled out the post-survey. The average age among UW students was 33.3 (SD=7.6) ranging from 21 to 51, and all TMDU students were 19 years old. The results from the pre-test (M=97.9, SD=9.0) and post-test (M=97.9, SD=9.0) and post-test (M=97.9, SD=9.0)

102.8, SD = 8.4) in UW students indicate that significant improvement in ISS scores, t(43) = -4.1, p<.001. All subscale scores significantly increased except interaction confidence (Table 1).

In TMDU students, the mean score of ISS was 88.4 (SD = 6.8) for pre-survey and 91.9 (SD = 5.3) for post-survey, which significantly increased, t(6) = -2.9, p = .028. Although there were no statistically significant differences in each domain, mean scores of interaction engagement (M = 26.9 to 28.1), respect for cultural differences (M = 25.9 to 27.1), and interaction confidence (M = 14.7 to 16.3) increased, and interaction enjoyment (M = 10.4 to 9.9), and interaction attentiveness (M = 10.6 to 10.4) slightly decreased at post-survey.

Table 1: Changes of ISS Scores Before and After COIL (UW students)

Variable	Pretest	Posttest	t	p
	M(SD)	M(SD)		
Total	97.9 (9.0)	102.8 (8.4)	-4.1	<.01**
Engagement	29.5 (2.5)	30.9 (2.4)	-3.9	<.01**
Respect	26.1 (3.3)	27.4 (2.9)	-2.6	.01**
Confidence	17.6 (3.5)	18.5 (3.5)	-1.8	.07
Enjoyment	12.6 (2.4)	13.2 (2.0)	-2.1	.04*
Attentiveness	12.0 (1.9)	12.7 (1.3)	-2.7	<.01**

p\*<.05, \*\*<.01

# [Discussion]

Implementation of COIL resulted in significant improvements of the ISS scores among both UW and TMDU students. Although none of participants actually met in person (*i.e.*, they interacted with each other only online), this study provides a support that COIL is an effective learning method that enhances intercultural sensitivity and builds crosscultural understanding. COIL failed to increase the scores in interaction confidence subscale in UW students, and enjoyment and attentiveness in TMDU students, which may require more effective interactions. The number of participants at TMDU was small, and all scores of ISS were lower than UW students. Only a few TMDU students who could speak English without translation participated. It is necessary to increase English ability among TMDU students so that they can enjoy interaction.

### 【Conflict of Interest】 None.

### [References]

Chen, G., & Starosta, W. J. (2000). *The development and validation of the intercultural sensitivity scale*. Annual Meeting of the National Communication Association, Seattle, WA, United States. http://eric.ed.gov/?id=ED447525