Bridging the Gap Using EdTech and AI: Enhancing Understanding Proficiency and English-to-Portuguese Translations

Bostic, Sydney (School: Spring Mills High School)

“Bridging the Gap Using EdTech and AI” includes the EdTech desktop application and an iOS mobile app with a workflow of three functions to make the use of AI for teaching/learning more efficient for teachers/students across different learning levels: (1) scanning text based images (Google Cloud Platform OCR), (2) modifying understanding levels (ChatGPT), and (3) translating 31 languages (DeepL). My EdTech app was used to educate learners across different learning levels by adjusting the proficiency level of content in English and translating the same content into Português. The scientific question was: is learning proficient across age, grade level, and language using the EdTech App AI translation of a college-level learning assignment? Six teachers from two counties/three cities in West Virginia, and two from Brazil were recruited to protype my app. My study used paired t tests to assess the proficiency of student learning using posttest averages. I measured increased change in language proficiency. The hypothesis was: 70% of students will score a 75+ on posttests modified using AI and posttest averages will show positive change in students' learning proficiency to determine the usefulness of the EdTech App. The data supported the hypothesis: 40/99 students (40%) scored a 75+ on the pretest and 72/99 (73%) scored 75+ on the posttest. Grade 5 showed the most significant increases in understanding, and posttest scores for Brazilian students were highest; 29/31 (90%) scored 75+.