

NYU scholar makes recommendations to end disparities in stem for English learners

8 October 2019

Although non-native English speaking students are just as capable as their peers of learning subject matter in STEM (science, technology, engineering, mathematics) fields, they face additional barriers because of a misalignment in the way K-12 schoolwork is taught. Referred to as English learners, these students are learning the English language in tandem with other coursework. However, English language proficiency standards—the framework, curriculum, and instruction for which English is taught and learned—does not consider the academic content these students are learning outside of the English language. Similarly, the STEM coursework these students are learning does not take into consideration that these students are new to the English language.

Okhee Lee, Ph.D., professor of childhood education at New York University's Steinhardt School of Culture, Education, and Human Development, is working to develop English [language](#) proficiency standards that are better aligned with what students are actually learning in the classroom. In her latest research article, published in *Educational Researcher*, a peer-reviewed journal of the American Educational Research Association (AERA), Lee provides recommendations to support a federal mandate in the Every Student Succeeds Act of 2015 which requires that English language proficiency standards align with content standards.

"There is a problem in our [public schools](#) that English language proficiency standards do not align with the language-intensive content standards in STEM subjects," says Lee. "In the science classroom, English learners can communicate their ideas using any means of communication (tables, charts, diagrams, physical objects, gestures, etc.) beyond 'language.' In the engineering classroom, English learners can make things work without using 'language.' In the computer science classroom, English learners can

make a robot carry out their commands without using 'language.'"

English learners make up the fastest growing subset of the U.S. [student](#) population. According to the most recent statistics, English learners constituted 9.6 percent of the public-school population, or 4.9 million students (National Center for Education Statistics, 2019).

"In effect, we are holding English learners back from their ability to achieve the rigorous content standards expected of them to be ready for college or careers when graduating from high school," Lee continued. "It is my hope that scholars from English language education and STEM subjects come to the table and agree on English language proficiency standards that will serve to uplift these children rather than hold them back."

More information: Okhee Lee, *Aligning English Language Proficiency Standards With Content Standards: Shared Opportunity and Responsibility Across English Learner Education and Content Areas*, *Educational Researcher* (2019). [DOI: 10.3102/0013189X19872497](https://doi.org/10.3102/0013189X19872497)

Provided by New York University

APA citation: NYU scholar makes recommendations to end disparities in stem for English learners (2019, October 8) retrieved 21 June 2021 from <https://phys.org/news/2019-10-nyu-scholar-disparities-stem-english.html>

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