Title of Project:
Investigating the Potential of Multimodal Tasks to Promote More Equitable Assessment of English Learners in Science

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TIRF Research Topic Investigated:
Language Assessment
Content-Based Instruction

Project Summary:
New content standards in U.S. K-12 education expect all students, including a growing population of English learners (ELs), to demonstrate their content learning using multiple modalities (e.g., visuals, audio/video, language). Traditionally, content assessments have been carried out through written language, with nonlinguistic modalities (e.g., visuals) being deprioritized or excluded altogether. However, given the new standards' emphasis on multimodality, assessments focused exclusively on written language could miss ways that all students, and ELs in particular, communicate competently in the content areas using their full semiotic repertoire. Thus, it is critical that assessments recognize learning expressed through a wide range of linguistic and nonlinguistic modalities.

The purpose of this mixed-method study is to investigate the extent to which multimodal assessment tasks provide information about students' science learning that traditional written language assessments do not, and whether this is particularly the case for ELs. Specifically, the study will examine the performance of 414 fifth-grade students at varying levels of English proficiency on science tasks that elicit responses in visual, written, and oral modalities. The quantitative analysis will compare performance in visual versus written modalities and examine the role of English proficiency in explaining these performances. Based on a subsample of 30 students, the qualitative analysis will investigate whether responses to the same tasks in the oral modality provide additional information about students' science learning. By expanding purely linguistic conceptions of what "counts" as evidence of content learning, multimodal tasks could promote more equitable assessment of all students, especially ELs, in the content areas.