Like most countries in the world, Lebanon is linguistically diverse, and that diversity brings numerous challenges to the realm of science education. Two principal challenges are 1) the intelligible presentation of science content to students who are not fully fluent in the language of instruction, and 2) the social marginalization of students who are perceived as linguistically “different” from their more mainstream peers.

These two issues are usually addressed separately, if at all. However, there is a way to engage both of them in an integrated manner: make students’ own linguistic diversity the focus of scientific inquiry in the classroom. While STEM education is not generally thought to include the social sciences, socially-patterned variation in natural spoken language is a perfectly suitable object for scientific description and analysis, similar to that employed in the natural sciences. An approach that guides students through the systematic collection and analysis of linguistic data, thus leading them to understand language variation as a natural process, has a number of advantages. First, it offers students a scientific framework that challenges common misperceptions and prejudices about language variation—prejudices that have undeniably pernicious effects on students’ education and development. Second, it allows children the opportunity to collect first-hand empirical data from their immediate environment, without the need for expensive materials or technology. Third, it requires students to engage with each other across social boundaries in order to carry out the data collection and analysis. Fourth, it positions all students as potential sources of data, with native expertise in one or more language varieties. Fifth, the required analysis uses deductive reasoning to infer principles and relationships from a set of concrete examples, thus instilling scientific “habits of mind” through direct experience.

A well-grounded curriculum based in the local linguistic ecology of each classroom can foster a child-centered, cooperative, inquiry-based pedagogy that is both scientifically rigorous and socially empowering. This approach holds the potential for educators as well as students to view linguistic diversity not simply as an obstacle to be overcome, but as a resource to be utilized in science instruction.