

## Supporting the Multilingual Assets and Identities of Diverse Teacher Candidates in Science

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**OVERVIEW:** Teacher Education Program (TEP) learning contexts can support the development of bilingual BIPOC teacher candidates' translanguaging stances as a critical part of their professional identity as linguistically just-oriented science teachers.

**AUDIENCE:** Administrators (K-12), District science coordinators, Doctoral advisors, Grant funders, Instructional designers, K-12 science teachers, Professional development providers, Researchers/Researcher supervisors, Science communication practitioners, Science education leaders, Teacher educators, STEM educators, Elementary science teachers

### KEY POINTS

- Teacher Education Program (TEP) learning contexts matter for Teacher Candidates Identity development.
- Bilingual Black, Indigenous, and People of Color (BIPOC) teacher candidates (TCs) intersecting identities supported new ways of being science teachers.
- TEP programs and methods courses can leverage TCs' multilingual assets and scientific knowledge.
- Modeling of a translanguaging stance supported up-take of TCs' translanguaging pedagogies.
- A translanguaging stance is a new way of being multilingual and is central to building an elementary science classroom culture with and for multilingual students.

**INTRODUCTION:** Some Teacher Education Programs (TEPs) are broadening their notions of learning and identity formation for multilingual learners by focusing on translanguaging pedagogies. This conscious linguistic justice move is critical to sustaining bilingual Black, Indigenous and People of Color (BIPOC) teacher candidates' identities and dynamic language learning practices. Focusing on translanguaging pedagogies in TEP can support TCs in building from and leveraging their lived experiences. This qualitative comparative case study asked, 1) How does a TEP that centers on racial and linguistic justice support teacher development of translanguaging stances in science for bilingual BIPOC teacher candidates? 2) How did bilingual BIPOC teacher candidates enact translanguaging pedagogies in their DLBE student teaching placements in science? We looked at how the contexts for learning for three bilingual BIPOC teacher candidates supported them in learning and reflecting on asset-based science discourse practices and building their identities as bilingual BIPOC teacher candidates in dual language classrooms.

**FINDINGS:** This study draws on and extends the literature on translanguaging with accounts of the possibilities when bilingual BIPOC teacher

candidates' discourse identities are made visible and leveraged for learning and identity development. We found that through their experiences with multilingual pedagogies in the TEP, such as having the science methods course materials acknowledging and using TCs prior science knowledge and identities as tools for learning, they wanted to try these multilingual pedagogies in their classrooms. Concurrently, these opportunities made them reflect and notice the role that language and culture played in their own identity development and discourses as multilinguals and the desire to expand teachers and students' cultural identities. Based on these noticings, the three BIPOC teacher candidates enacted translanguaging pedagogies while teaching science and provided their students' multiliteracy and multimodality spaces that positioned students' and teachers' identities as scientists and as multilingual sense-makers.

**TAKEAWAYS:** The multilingual pedagogies and translanguaging stance promoted and enacted in the TEP teaching and learning science context facilitated the transpositioning of student and teachers' identities as multilinguals and science knowledge holders, upholding a responsibility to BIPOC and all multilingual students.

**Full Title: Bilingual, Black, Indigenous, and People of Color (BIPOC) Teacher Candidates' Translanguaging Selves: Working with Their Multilingual Assets and Identities as Future Elementary Science Teachers**