

Learners in the demographic transition

All educators must learn to support English learners

Informing policymakers through research

The issue. The interaction of an aging population, declining birth rates, and failure of enterprise to retain college graduates is necessitating Iowa's reliance on immigration for economic growth. Immigration is both a necessity and a challenge. Intercensal data shows an 80% increase in the enrollment of elementary- and secondary-aged language minority children. Moreover, the national context of No Child Left Behind has brought English learners (ELs) into the accountability and assessment spotlight. Teachers with little to no previous histories working with EL students now find themselves responsible for monitoring EL performance and progress.

According to our research. There has been heightened interest among second language theorists and educators in the integration of language instruction with content instruction, but little has been known about the pedagogical implications of integration or its influence on student learning and achievement. Our research examined how Iowa teachers of science understood their work with ELs and the impact of teachers' science and language practices on the outcomes of language minority youth.

Our findings echoed and extended those of others. First, teachers' working with ELs are limited to practices of vocabulary development; they ignore other important linguistic features, such as unique grammatical and discursive patterns, that constitute the academic language of science. Moreover, put into practice, these vocabulary-based approaches are likely to continue to withhold from ELs the very linguistic input and output they need in order to acquire not only the linguistic formations of science, but conceptual formations as well. In narrowing the range of attention that teachers of ELs place on the linguistic demands of science, they also may substantively compromise

cognitive development and opportunities to demonstrate academic achievement. Integrated instruction, if it is inadequately understood, does not achieve productive outcomes for ELs English proficiency or science mastery.

We recommend. Iowa's changing demographics demand that we rethink teacher education and professional development. We can no longer afford to relegate work with ELs to the ESL classroom. Researchers agree that it takes from five to eight years or longer to acquire academic language proficiency. We cannot wait for this proficiency to develop before giving these students access to core curricular content, such as science. All teachers need to develop the skills to promote the language development of students in their classrooms who are not proficient speakers of English. This will require making resources available to build capacity among university faculty to redesign teacher preparation programs across the state and to develop continuing professional development opportunities for Iowa's current administrative and teaching force.

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For more information, visit:
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This policy brief is based on published research: Richardson Bruna, K., Vann, R. & Perales Escudero, M. (2007). What's language got to do with it?: A case study of academic language instruction in a high school 'English Learner Science' classroom. *Journal of English for Academic Purposes* 6 (1), pp. 36-54.

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