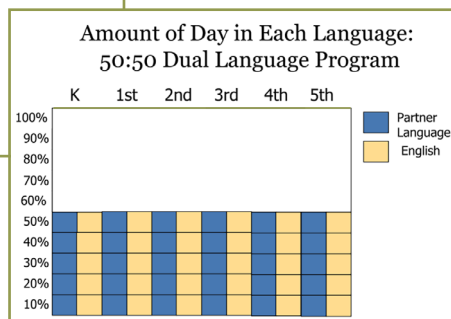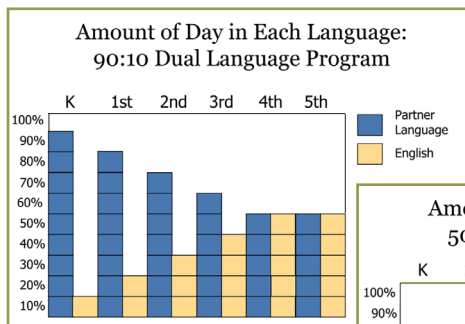# Learning About Students' Experiences in Dual Language Education: The Bilingüe, Educación y Éxito Project (BEE Project)

by Doré R. LaForett, Ph.D. and Ximena Franco-Jenkins, Ph.D., University of North Carolina at Chapel Hill, and Adam Winsler, Ph.D., George Mason University

How do students' experiences in 90/10 dual language education (DLE) models differ from students in 50/50 DLE models? This is the big question researchers at the University of North Carolina at Chapel Hill and George Mason University sought to investigate in the Bilingualism, Education, and Excellence Project (BEE project), a research study funded in 2018 by the Institute of Education Sciences (IES) within the U.S. Department of Education. As Part 1 of a two-article series, this article will describe how the BEE Project got started, what the researchers hope to learn, and what has been learned from the project so far.

Amount of Day in Each Language: 90:10 Dual Language Program

Amount of Day in Each Language: 50:50 Dual Language Program

How Did the BEE Project Get Started?

In 2014, the principal of a local Spanish-English DLE elementary school in Chapel Hill, NC contacted researchers at UNC-Chapel Hill with an invitation to learn about the school's DLE programming. This invitation led to conversations about observations the principal had made about student behavior in the DLE classrooms, such as how students who spoke Spanish vs. English in the home seemed to differ in how much they were actively engaged in classroom activities – regardless of whether the language of instruction was English or Spanish. Based on these observations, Drs. Doré LaForett and Ximena Franco-Jenkins partnered with this elementary school to conduct a small pilot study to learn more about student engagement patterns, as well as other topics such as peer relations in the classroom. This initial research collaboration paved the way for a larger research study, which became the BEE Project.

What Is the BEE Project, and What Are Researchers Hoping to Learn?

With funding from IES, Drs. LaForett and Franco-Jenkins – with Dr. Adam Winsler at George Mason University – launched the BEE Project in 2018 to take a broad look at the experiences of elementary-age students participating in Spanish-English DLE programs. Between 2018 and 2022, the research team partnered with four schools in three North Carolina school districts, enrolling 203 kindergarten – third grade students in 35 classrooms to participate in the study. Participating classrooms used a 90/10 transitional immersion DLE model, or a 50/50 DLE model. Classrooms varied in how they implemented the 50/50 model. Some classrooms used an approach involving two paired teachers, where students either switched teachers at mid-day (50/50 switch) or every other day (50/50 alternate) to get half of their instruction in English and half in Spanish. Other 50/50 classrooms had one bilingual teacher who taught students in both languages, roughly split in half across the day (50/50 self-contained).

The study aims to address two primary questions. The team is currently analyzing the data, and will share the results to the questions in Part 2 of this article, coming later in 2023.

Question 1: Are there differences in students' end-of-year academic outcomes (measured in both English and Spanish), depending on whether they are in the 90/10 or the 50/50 model? Does student performance look different depending on their level of proficiency in English and Spanish at the beginning of the school year?

The team conducted one-on-one assessments with students to measure their receptive vocabulary, expressive vocabulary, literacy, and math skills in English and in Spanish. The researchers also measured students' language proficiency in English and Spanish. With these data, the team will be able to answer whether students with low language proficiency in one language at the beginning of the school year do better in the 90/10 DLE model or the 50/50 model, and alternatively, which model might be better for students with high initial language proficiency. It is possible that students with high initial language proficiency might do well in both types of models. Stay tuned for the answer in Part 2 of this article series!

Question 2: What roles do student engagement, motivation, academic self-concept, and student-teacher relationships play in predicting academic outcomes for students in different DLE models?

Researchers know very little about what actually goes on in DLE classrooms. Student engagement in classroom activities and enjoyment of learning might depend on students' initial language proficiency at the beginning of the school year, which might not be the same across DLE models. For students with relatively low initial Spanish proficiency, the 90/10 model, where most of the instruction is in their weaker language, might negatively affect how engaged they are in the classroom, which could affect their learning outcomes at the end of the year. Other student characteristics, like their motivation for learning and academic self-concept, might look different and play different roles in predicting achievement depending on their specific DLE program model and initial language proficiency. Finally, the quality of the relationship that develops between the student and teacher may be different depending on the student's initial language proficiency and the DLE model used.

To look at these questions, the research team conducted classroom observations of student engagement during English instruction and Spanish instruction. The team also asked teachers to independently rate each student on their motivation/approach to learning and the quality of the relationship they have with the student. The research team also asked students questions during a one-on-one assessment to measure the student's academic self-concept.

What Has the BEE Project Team Learned So Far?

While the BEE Project team is still analyzing the data to answer their two primary questions, they have been able to do some additional explorations of their data, uncovering some exciting findings for DLE programs to consider in efforts to provide high-quality DLE programming.

Student Engagement

The team asked:

⚜ How engaged (i.e., on-task) are students in Spanish-English DLE programs, and does engagement vary by language of instruction and student home language?

⚜ How much does the DLE program model (i.e., 50/50 switch, 50/50 alternate, 50/50 self-contained, vs. 90/10) matter for student engagement?

They found that:

⚜ Students who speak Spanish at home were highly engaged in DLE classrooms, regardless of program model and instructional language.

⚜ Students who speak English at home were less engaged during Spanish instruction, especially in 50/50 alternate classrooms.

⚜ Engagement was highest for all students in 50/50 switch classrooms.

Home Language Surveys

Home Language Surveys (HLSs) are used to identify students who might be classified as English Learners (ELs), but often they only ask about language practices of two parents/adults in the home. Thus, the research team examined:

⚜ How often do HLSs misclassify students by only asking about the language use of two (vs. three) adults at home?

The team found that:

⚜ Over 35% of DLE students had a third adult at home.

⚜ Home language classification changed for 4% of students (12% of those with three adults at home).

⚙ Misclassified cases underestimated the amount of Spanish or English used at home (depending on the case).

The research team recommends that HLSs include questions about the language use of any additional adults at home.

Final Thoughts

The evolution of the BEE Project shows how DLE practitioners' sharing of real-world observations and experiences with students in DLE classrooms can help support local DLE programs efforts, and generate unexplored questions that researchers can examine to further our scientific understanding of DLE settings and students' experiences. What started with a principal's question about student engagement led to more questions about different DLE program models, the role of students' initial language proficiency in English and Spanish, and how students' behaviors and other characteristics might make a difference in their DLE experience. The BEE Project team has already uncovered important information about different DLE policies and practices, such as recommendations to improve the use of Home Language Survey data and how nuances in the implementation of different types of 50/50 DLE models could affect student engagement. Look for Part 2 of this article series to see what the BEE Project team learns next!

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Engage with the researchers and contribute to their understanding!

What kind of questions do these research findings raise for you? Here are some questions raised by the research team. Please email us at *bee_project@unc.edu* with your thoughts!

⚙ *Have you found the same to be true for your classrooms?*

⚙ *Which DLE model do you find challenging for students to remain engaged?*

⚙ *What are the pros/cons of 50/50 alternate day models?*

⚙ *What strategies work for you to keep English-dominant students engaged during Spanish instruction?*