

The Impact of the French Immersion Program on Achievement and College Readiness

EXECUTIVE SUMMARY

Since the French Immersion program has been operating in the school district for decades, Prince George's County Public Schools (PGCPS) decision-makers are interested in the impact of attending a French Immersion school. The French Immersion program is a full immersion model where all academic subjects are taught in the French language from kindergarten through the 8th grade, with an option to continue some coursework in high school. During elementary and middle school, French-speaking teachers totally immerse students in French as they learn the PGCPS curriculum in mathematics, science, social studies, and English Language Arts (ELA). Placement in a French Immersion school is through a lottery process and students can only be placed in a French Immersion school in kindergarten. There are two K-8 French Immersion schools in PGCPS, Maya Angelou French Immersion and Dora Kennedy French Immersion. The current study focused on the impact of attending a French Immersion school at Grade 3, Grade 5, Grade 8, and Grade 11. Examining the effect of French Immersion education while students are enrolled in the program is important, because it provides a better understanding on the added value of a child attending French Immersion, versus attending another type of school. Examining the long-term effect of French Immersion in Grade 11 will provide insight on whether the impact of French Immersion sustains throughout high school.

The following research questions guided this study: 1) Do third, fifth, and eighth grade students who are enrolled in French Immersion have better ELA, math, and science scores compared to similar students with other schooling experiences?; 2) Are eleventh graders who completed French Immersion education more likely to be ready for college and career than eleventh graders of the same high school who attended non-French Immersion schools?; and 2a) After accounting for academic achievement in elementary and middle grades, are eleventh graders who completed French Immersion education more likely to be ready for college and career than eleventh graders of the same high school who attended non-French Immersion schools?

To address the research questions, we used SY15-SY16 enrollment data to create the analytical samples and French Immersion lottery participation data across several years, starting in SY05, as a proxy for parental motivation. The outcomes of interest for this study were ELA and math proficiency in Grades 3, 5, 8 and 11; whether a student takes advanced math in Grade 8; science proficiency in Grades 5 and 8; and whether a student is considered

college ready in ELA and math in Grade 11. PARCC ELA and math data, MSA science data, and Maryland State’s College and Career Readiness (CCR) report data were used for the outcomes. The samples were restricted to students who attended the same elementary schools (i.e. K-5 and K-3 for the Grade 3 analysis) and had available achievement data for the respective analysis. Each French Immersion student in the sample was then matched with a demographically identical student. To estimate the impacts of French Immersion experience on PARCC proficiency rate for each grade, we used the Average Treatment Effect on the Treated (ATET) model.

The Impact of French Immersion Education in Elementary and Middle School

The findings from the Grade 3, Grade 5, and Grade 8 treatment effect analysis show a consistent pattern of positive impact (measured in differentials in the percent proficient) of French Immersion enrollment across grade levels in ELA, mathematics, and science. The results demonstrate that the size of the impact progressively increased as students moved through elementary and middle school. In ELA, estimates range from six percentage points in Grade 3 to about 38 percentage points in Grade 8. Previous evaluations of French Immersion programs found that students often score significantly lower in English than non-immersion students in the early grades, but the gap typically disappears within one year of receiving instruction in English (Lindholm-Leary and Genesee, 2014). The findings in this study are consistent with these previous findings in that by the end of Grade 3 (after one full year of instruction English Language and Arts), French Immersion students are as proficient as their peers in English only schools. In mathematics, French Immersion students outperform their peers by 14 percentage points to 39 percentage points, depending on grade level, and in science, they outperform by nine percentage points to 25 percentage points. The study also explored the role of parental motivation in moderating the impact of French Immersion education. After controlling for parental motivation, findings further suggests that there were positive and statistically significant impacts in ELA, mathematics, and science at each observed grade level. These findings are important given that French Immersion students study mathematics and science in French through Grade 8 and they do not start learning in the English language until Grade 2.

Long-term Effect of French Immersion Education in Grade 11

The findings from the Grade 11 treatment effect analysis, show that high school students who had attended French Immersion program were better prepared for college and career than similar students who attended traditional elementary and middle schools in PGCPs. Specifically, French Immersion students performed as well as their matched high school peers on PARCC Algebra II and performed better than their peers on the PARCC ELA, CCR ELA and CCR Math. Additional analyses were conducted to ascertain whether the observed rates of

readiness for former French Immersion students were a result of the advantages in proficiency in math and reading during their enrollment in French Immersion program. The findings showed that French Immersion students were more likely to be consistently proficient in reading and mathematics in Grades 3 through 8, and this early advantage was associated with the higher readiness rate for college in reading and in mathematics at the end of high school. The findings confirmed that the impact of French Immersion sustained long after students graduated from the program.