



What Factors are Important for an Effective K-8 Program?

Report by

Center for Applied Second Language Studies (CASLS), University of Oregon

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Question:

I understand that it's better to start teaching foreign languages in elementary school. What kind of program would be best?

Answer:

In terms of bang for the buck, immersion programs lead to the highest proficiency levels. We look at the results from immersion programs in another Ten Burning Questions study (see "What levels of proficiency do immersion students achieve?"). For non-immersion programs, such as FLES, the two key factors for effective programs are *time* and *intensity*.

Time refers to the total amount of instructional time provided in a program. Language programs must provide sufficient hours of instruction for students to realistically reach desired proficiency levels. The earlier instruction begins in elementary school, the more likely a program will have sufficient instruction time. *Intensity* refers to the number of class sessions provided each week and number of weeks provided each year. The more frequent and consistent the instruction, the more opportunity to reinforce the course material.

In sum, language programs that meet several times each week during the whole school year and continue for multiple years are generally the most effective. Decisions about teaching method, text book, and so on follow after the most important questions are answered: How much total instruction will be provided? How frequently will classes be held?

Research Summary:

The Center for Applied Second Language Studies (CASLS) worked with the New Jersey Department of Education to study the proficiency outcomes of students completing their elementary school world language programs. New Jersey eighth grade students are enrolled in a variety of program models that vary by total number of years, number of weeks per year, and the number of sessions per week. Our study focused on determining which program designs enabled students to demonstrate ACTFL Novice-High proficiency by the end of eighth grade.

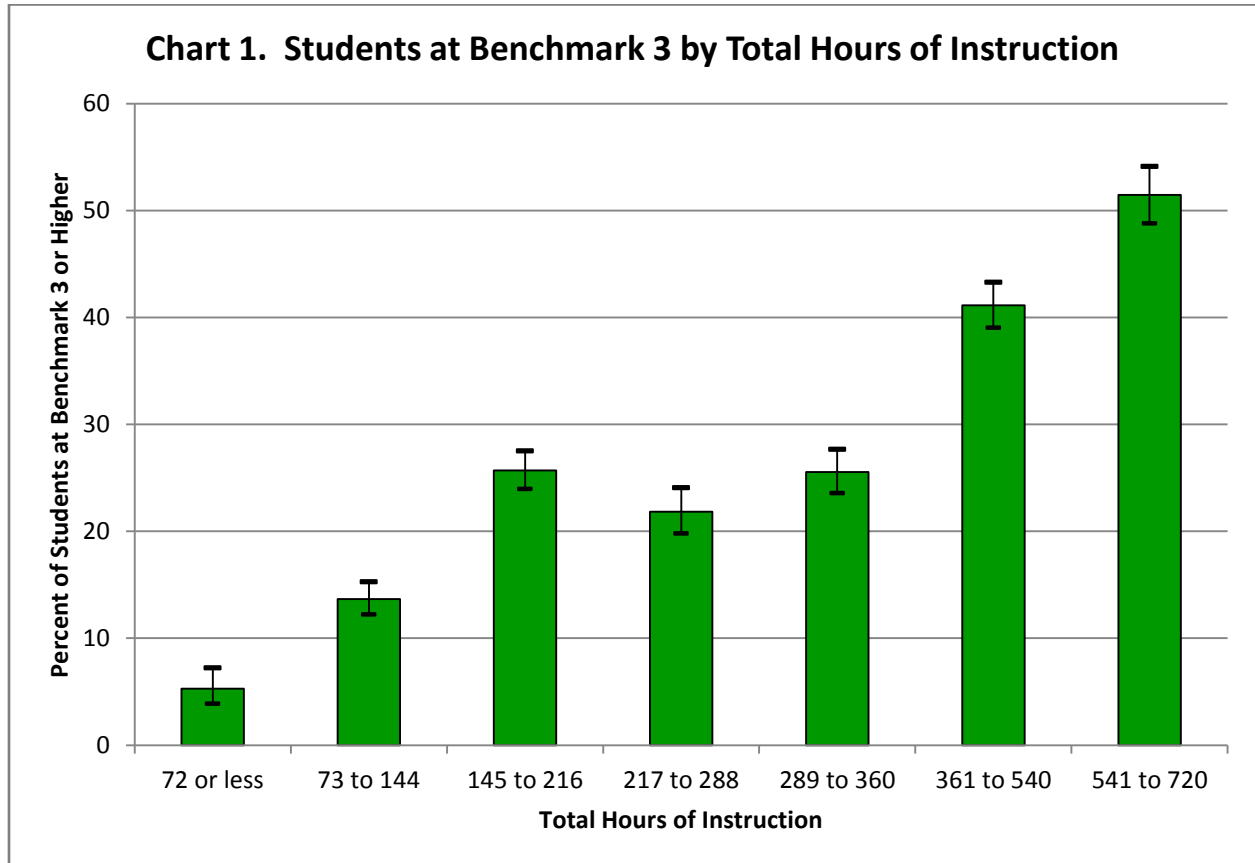
The study focused on three specific questions related to the time and intensity of instruction:

1. What is the effect of total hours of instruction on proficiency outcomes?
2. Are semester-long program results the same as year-long programs if the total hours are the same?
3. What is the effect of the number of class sessions per week when the total number of hours are equal?

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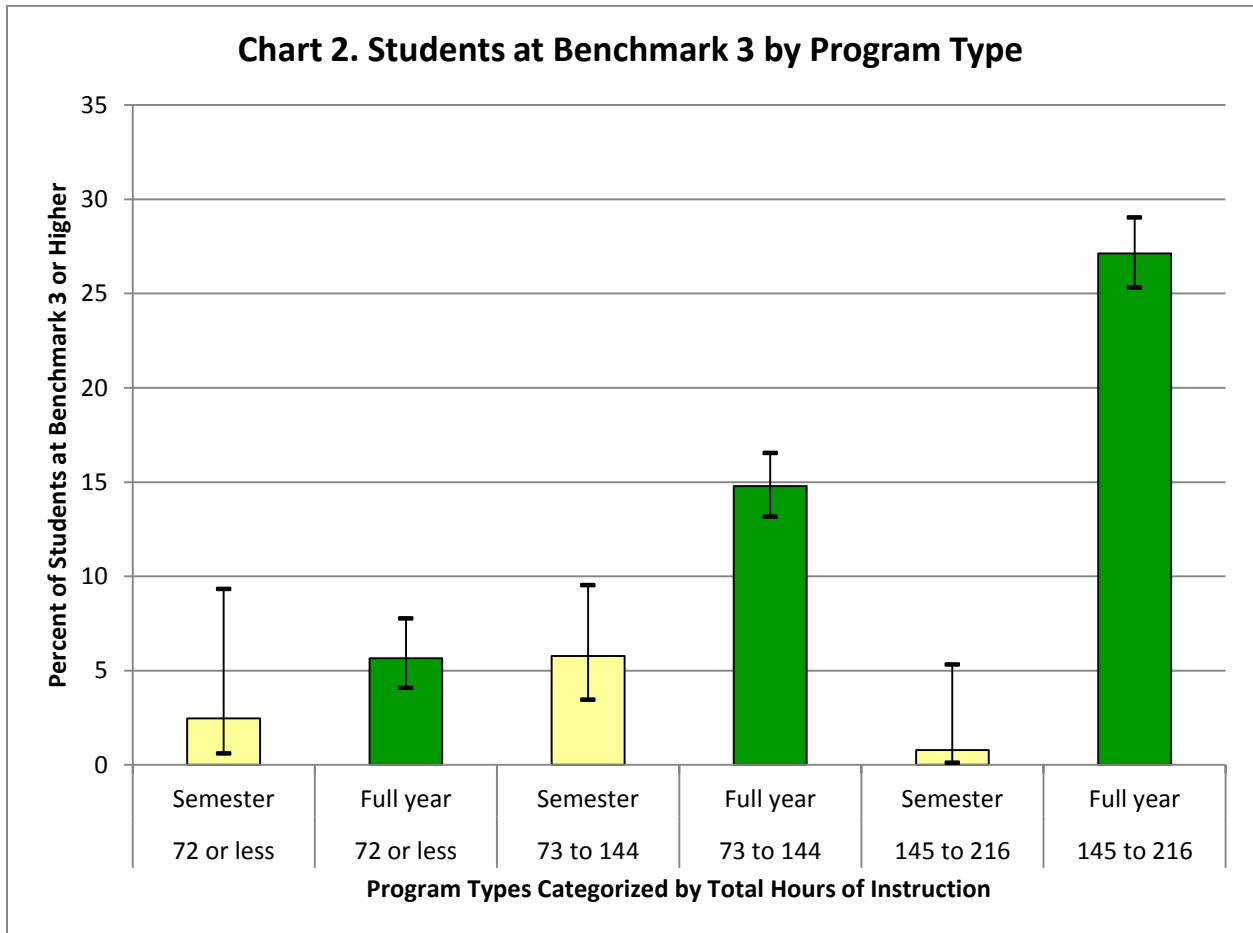
We conducted proficiency testing using the Standards-based Measurement of Proficiency (STAMP). We limited the study to speaking results only, as that skill is usually the focus of K-8 programs. STAMP results are reported on the benchmark scale in which descriptions for levels ranging from 1 to 6 are based on the descriptions of ACTFL levels Novice-Low to Intermediate-High. We compared the number of students who scored at benchmark 3 or higher with the number who scored at benchmark 2 or below.

Chart 1 shows that increasing the total number of instructional hours leads to an increase in the percent of students who reach benchmark 3. Although there is a certain amount of variation from district to district, the main effect is that student performance improves with increased time in class. Based on the chart, approximately 200 hours of instruction are needed for 25% of students to reach benchmark 3, while approximately 700 hours are needed for 50% of students to reach this goal. In order to fit a high number of total hours into a student's program, multiple years of language instruction are necessary.



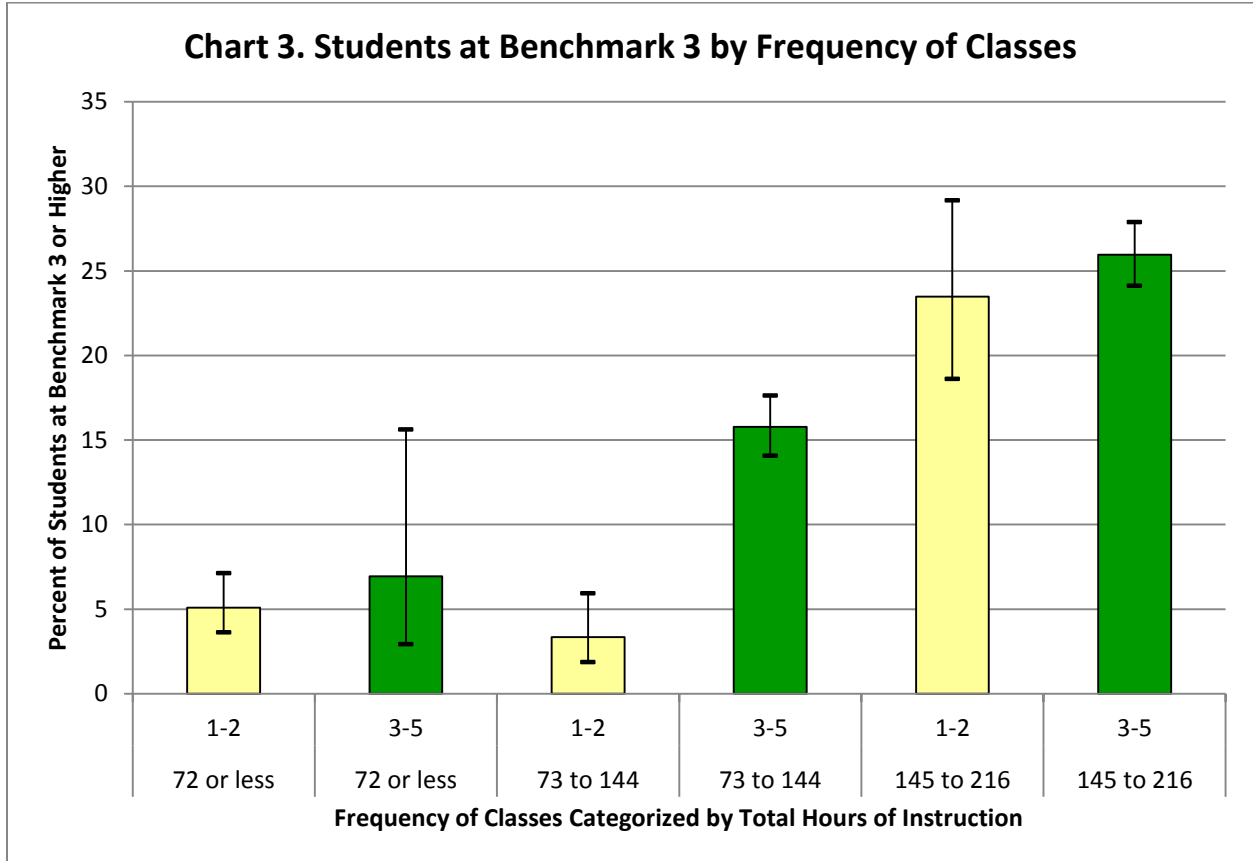
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Chart 2 shows the results for students who have had up to 216 hours of instruction in either a semester program or full-year program. Students who received a certain number for instructional hours in two semesters of two different school years are compared with students who received the same number of total hours in a single school year. As the chart shows, more students reach benchmark 3 when instruction is spaced evenly throughout the whole school year.



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Chart 3 shows the results for students who have had up to 216 hours of instruction in programs that met one or two times each week or those which met three to five times each week. Students who received a certain number of instructional hours in low frequency schedules are compared with students who received the same number of total hours in high frequency schedules. As the chart shows, more students reach benchmark 3 when classes meet three or more times per week. The results suggest that more frequent practice of language skills leads to higher levels of student performance.



Taken together, these results demonstrate the need for sufficient intensity of language instruction. They highlight the need for consistent and frequent instruction throughout the entire school year. Even when the total number of hours per year is held constant, students perform better when instructional time is evenly distributed across the school year and classes meet on a nearly daily basis. In addition, programs need to devote a sufficient total number of hours to their language programs so that the majority of students can become functionally proficient.

Data Analysis:

We conducted proficiency testing using the Standards-based Measurement of Proficiency (STAMP). Teachers submitted more detailed information about the number of hours of language

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instruction that their students received each week, how frequently their classes met, and how many years students had been in the program. After checking the number of students available for each language and each schedule of instruction, we limited the study to speaking results for non-heritage learners in non-immersion Spanish and French classes. For other languages, there were too few students for some combinations of schedule and years of study.

The final dataset contained scores for 12,517 students enrolled in 423 classes situated in 143 schools in 97 districts. Thus, although this study is based on a convenience sample, it represents a regionally diverse cross section of New Jersey eighth grade students.

STAMP results are reported on the benchmark scale, where descriptions for levels ranging from 1 to 6 are based on the descriptions of ACTFL levels Novice-Low to Intermediate-High. For each type of program, we counted the number of students who scored at benchmark level 3 or better, meeting the New Jersey proficiency target, and compared them with the number who scored 2 or less.

Time: The Effect of Total Instructional Hours

The data are detailed enough to estimate each student's lifetime hours of language instruction. Students are grouped on the basis of total lifetime hours, regardless of how students attained these hours. Table 1 shows that increasing the total hours of instruction significantly increases the number of students reaching benchmark 3.

Table 1: Speaking Proficiency for Eighth Grade Students

Total Hours of Instruction	Total Students	Number at Benchmark 3 or Above	Percent at Benchmark 3 or Above
72 or less	700	37	5.3%
73 to 144	1,940	265	13.7%
145 to 216	2,332	599	25.7%
217 to 288	1,446	316	21.9%
289 to 360	1,722	440	25.6%
361 to 540	2,054	845	41.1%
541 to 720	1,339	689	51.5%

Intensity: The Effect of Semester Versus Full-year Programs

We compared students who had received equivalent total instructional hours either in eighteen-week (semester) or thirty-six-week (full-year) programs. As shown in Table 2, students enrolled in semester programs have lower levels of speaking proficiency, even when they have received the same number of instructional hours. We limited the study to students receiving 216 or fewer hours, as semester-based programs rarely reach high numbers of total hours of instruction.

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Table 2: Comparison of Semester and Full-year Programs

Total Hours of Instruction	Semester Program			Full-year Program		
	Total Number of Students	Number at Benchmark 3 or Above	Percent at Benchmark 3 or Above	Total Number of Students	Number at Benchmark 3 or Above	Percent at Benchmark 3 or Above
72 or less	81	2	2.5%	619	35	5.7%
73 to 144	242	14	5.8%	1,698	251	14.8%
145 to 216	128	1	0.8%	2,204	598	27.1%

Intensity: The Effect of Number of Class Sessions per Week

We compared students who had received equivalent total instructional hours, either in programs meeting one or two times each week or in those meeting three to five times each week. As shown in Table 3, students are more likely to reach benchmark 3 when their classes meet three or more times each week.

Table 3: Comparison of Number of Class Meetings Each Week

Total Hours of Instruction	1-2 classes per week			3-5 classes per week		
	Total Number of Students	Number at Benchmark 3 or Above	Percent at Benchmark 3 or Above	Total Number of Students	Number at Benchmark 3 or Above	Percent at Benchmark 3 or Above
72 or less	628	32	5.1%	72	5	6.9%
73 to 144	329	11	3.3%	1,611	254	15.8%
145 to 216	247	58	23.5%	2,085	541	25.9%

In sum, language programs that meet several times each week during the whole school year and continue for multiple years are generally the most effective.