

Research Findings from the West Virginia Virtual School Spanish Program

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The research presented below was designed to assess the impact of the WV Virtual School Spanish Program as part of a larger, three-year initiative funded by the US Department of Education, *Educational Development for Planning and Conducting Evaluations*. Its goal was to provide empirical data on student achievement in a virtual foreign language course using a quasi-experimental design with experimental elements. The middle school course is a hybrid virtual program that combines computer-based, classroom, and audio-interactive components to rural and isolated schools where certified Spanish teachers are not available. It is an effort to provide both access to challenging course work and equity of access to those outside of population centers.

The findings provide support for the program and we identify best practices and offer suggestions for further development of the virtual course offerings.

THE PROGRAM WORKS

1. Data collected over 3 years show that students in the Virtual Spanish classes learn Spanish.

- Students in virtual classes perform as well as those in face-to-face classes on the Spanish Assessment. [Tables 1-3]
- Students in the virtual Spanish class have maintained a relatively high level of achievement over 3 years of assessment. [Figure 1]
- Students' scores on the Student Oral Proficiency Assessment (SOPA) show similar trends—consistent improvement in performance over 3 years. [Figure 2]

2. Students' who participate in the Virtual Spanish program have positive attitudes towards Spanish and towards learning, strong work habits, and feel more prepared for high school and beyond. Participating students are motivated by the course.

- More than 75% of the students surveyed say they learn a lot in Virtual Spanish.
- Approximately 90% say they:
 - like learning a foreign language
 - think learning a foreign language is important
 - want to continue Spanish in high school
- Students think speaking Spanish will:
 - prepare them for more advanced classes in high school
 - help them in college
 - help them function in a workplace where others speak Spanish
 - live in a more diverse world

3. High school Spanish II teachers say that students who take the middle-school Spanish I Virtual course do well in Spanish II, often outperforming students who take Spanish I in a high school face-to-face class. The perspectives offered by the teachers suggest that participating students are exploring and mastering 21st Century skills as a by-product of their learning Spanish. Teachers say that Virtual Spanish students excel in:

- **Language proficiency.** Virtual Spanish students:
 - have better pronunciation
 - know more vocabulary
 - spell Spanish words correctly
 - have covered more material in the Virtual Spanish program
 - learn faster and are ready to move on

- **Attitudes toward class and work habits.** Virtual Spanish students:
 - participate more in class
 - feel in control
 - take responsibility for their own learning
 - are more conscientious
 - value learning a foreign language

- **Technology skills.** Virtual Spanish students:
 - know how to find and use online language resources
 - use technology to complete assignments
 - have the technology skills to take other challenging classes, including AP classes which may only be available as virtual classes

THE PROGRAM WORKS BEST WHEN...

Our 3-year study allowed us to visit all the sites, collect observation, interview, and assessment data, and examine the key elements of the Virtual Spanish model—facilitation by a three-member instructional team, technology, feedback and communication, use of Spanish, and site support. Our analysis of the data helped us identify factors that characterize effective implementations— and that are statistically associated with students' achievement and engagement. We've found that:

1. Students in Virtual Spanish learn more Spanish and are more engaged when ...

- there is more interaction with the instructional team and when team members make connections to other subjects and provide scaffolding.

- the facilitator is actively involved in the learning process and guides students smoothly through the daily lessons by maintaining flow, giving directions, reviewing activities, and asking questions.

3. In classes where students hear more Spanish, from either the facilitator or the lead teacher, they:

- perform better on SOPA,
- are more engaged,
- value foreign language more, and
- want to continue Spanish in high school.

4. In classes where students receive more feedback on their learning and have high quality and frequent communication with the instructional team, students tend to . . .

- learn more Spanish and be more engaged,
- value learning a foreign language, and
- want to continue Spanish II in high school.

5. In classes where technology works well, and students have access to the necessary tools (e.g., enough headsets and microphones)...

- students learn more Spanish,
- students are more engaged,
- facilitators provide more instructional support and feedback to students, and
- communication and interaction between facilitator and students is more frequent and of higher quality.

6. In classes where students write more on the computer—filling in blanks, writing words or phrases, or composing open-ended responses—they have higher Spanish achievement and oral proficiency.

7. Listening to Spanish via technology (CDs, Wimba tools) is positively related to Spanish achievement; listening to others—facilitators, lead teachers (via telephone), and peers—is associated with higher writing and oral proficiency.

8. When there is a high level of school support—support from administrators, support from other teachers, an appropriate time in the school schedule, an appropriate class space—students tend to...

- be more engaged and learn more Spanish,
- value learning a foreign language, and
- want to continue Spanish II in high school.

REPLICATING THE MODEL: IMPLICATIONS AND RECOMMENDATIONS

Based on a detailed analysis of the extensive data collected over the past three years, including observations, questionnaires, and assessments, we see opportunities for the West Virginia Department of Education to:

Enhance the existing program:

- The program should take full advantage of the existing technology to provide more opportunities for students to hear Spanish, and explore other new technologies that expose them to as much Spanish as possible. This is especially useful, given students' preference for technology-based activities.
- Students would appreciate and benefit from more site visits from adjuncts, giving them a more frequent opportunity to speak to and interact face-to-face with their Spanish teacher.
- Facilitators in the virtual classrooms, especially new facilitators, could benefit from training and support that includes examples of best practices and effective classroom scaffolding. Facilitators should be encouraged to learn along with students and use Spanish as much as they are able to.

Extend the program to reach more students:

- The program has thus far attracted higher-achieving students, as do most middle-school foreign-language programs. Administrators and facilitators have also found that students who work well independently and take responsibility for school work are more likely to succeed. To extend the benefits of the program to a broader population, program leaders could consider guidance for schools in identifying, attracting, preparing, and supporting students who fall into one or neither category.

Replicate the existing program to provide other languages to middle school students.

- The success of the Spanish program suggests that it could easily be replicated with different languages.

Replicate the existing program to provide virtual Spanish II program.

- Given the success of the current program in teaching students Spanish and instilling an interest in foreign language and other cultures, it is vitally important that the state make every effort to allow students to continue. Because of the shortage of foreign language teachers, some Virtual Spanish students may not be able to continue or may not pick up Spanish II until their sophomore or junior years. Those who have access to other means of delivery do not feel that they learn as much as they do through this program. By offering the next level via a program patterned after this one, the state could ensure that students continue to develop important skills in language, technology, and life.

Table 1: Spanish Multiple Choice: Virtual Spanish students scored slightly higher on the Language section and slightly lower on the Listening and Reading sections.

	VS mean # correct	F2F mean # correct	Difference between VS and F2F
Listening (16 questions)	11.71	12.67	-0.96
Language (23 questions)	17.07	16.31	+0.76
Reading (22 questions)	13.35	14.67	-1.32

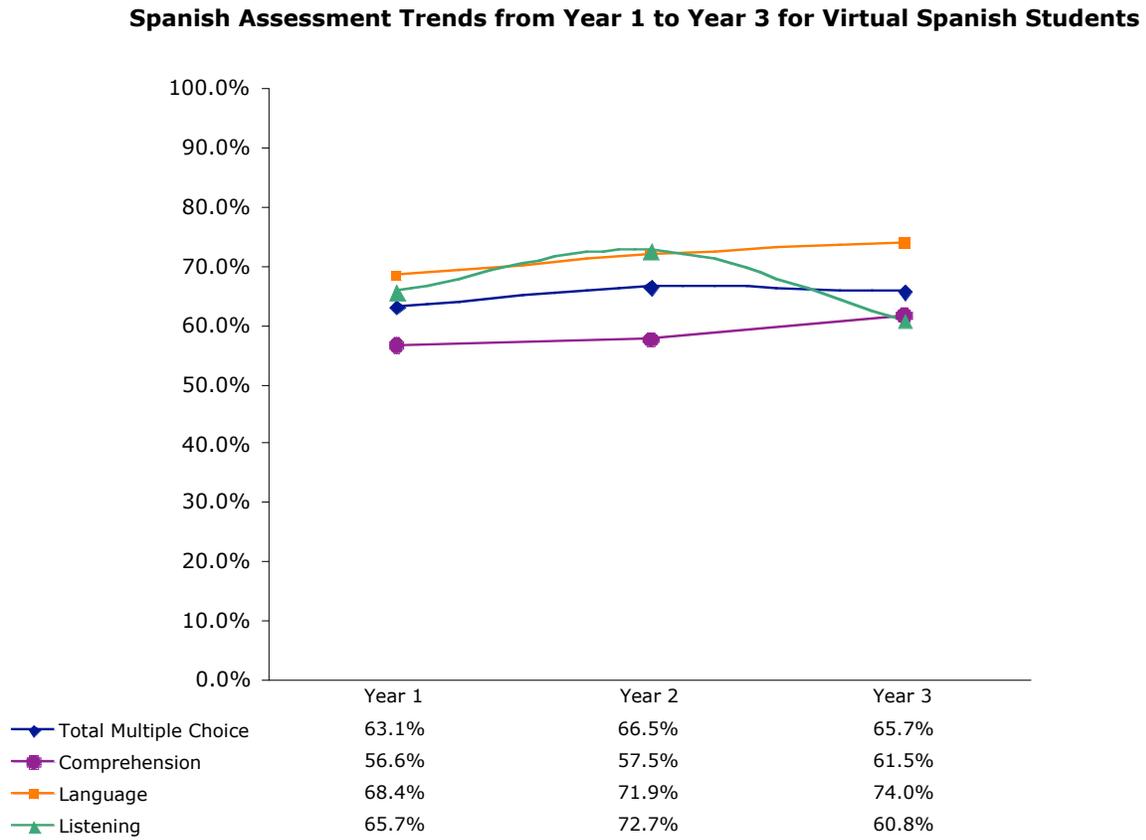
Table 2: Spanish Written Assessment The two groups scored similarly on the Written Assessment. VS scored slightly higher in 2 areas, slightly lower in 4 areas, and the same in one.

	VS mean	F2F mean	VS relative to F2F
Fluency	2.24	2.68	-0.44
Grammar	2.24	2.68	-0.44
Vocabulary	2.24	2.63	-0.39
Listening Comprehension	2.47	3.16	-0.69

Table 3: SOPA (Oral assessment. F2F students scored higher on the oral assessment.)

	VS mean	F2F mean	VS relative to F2F
Fluency	2.27	2.57	-0.30
Mechanics	2.44	2.35	+0.09
Grammar	2.21	2.48	-0.27
Vocabulary	2.43	2.61	-0.18
Prompt 1 Ideas	2.65	2.57	+0.08
Prompt 2 Ideas	2.95	2.95	0
Prompt 3 Ideas	2.30	2.46	-0.16

Figure 1:



* The listening assessment was administered online for the first time this past year and there may have been too much variability in how it was administered.

Figure 2:

SOPA Trends from Year 1 to Year 3 for Virtual Spanish Students

