

Formative Evaluation Report North Carolina Virtual Public School

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prepared by

**The Friday Institute for Educational Innovation
North Carolina State University**

contributors:

Kevin Oliver, PI

Kevin Brady, co-PI

Ruchi Patel, Graduate Research Assistant

Tricia Townsend, Research Associate

EXECUTIVE SUMMARY

In its second full year of statewide offerings, NCVPS has experienced some notable improvements from its inaugural year of operation. Highlights of the report are included below, with further details provided in the main narrative.

Notable Improvements in NCVPS Operations from the 2008 Survey

Last year's student and teacher survey responses (2008) were compared to this year's student and teacher survey responses (2009) on identical survey items to determine if the two cohorts differed in their perceptions of NCVPS operations. The data suggest several notable improvements as described below.

Significantly more teachers reported in 2009 that their students were learning more online compared to face-to-face, with an increase from 21% in 2008 to 43% in 2009.

Significantly fewer students in 2009 reported that technical problems affected experiences taking their online course (decrease from 52% in 2008 to 41% in 2009).

Significantly fewer teachers in 2009 reported that technical problems affected experiences teaching their online course (decrease from 77% in 2008 to 52% in 2009).

Significantly more teachers agreed in 2009 that NCVPS professional development was supporting the teaching of three 21st century skills: life and career skills, learning and innovation skills, and technology literacy, suggesting NCVPS professional development may be better addressing 21st century skills of interest.

Significantly more students in 2009 agreed or strongly agreed that their courses were teaching them learning and innovation skills (increase from 88% in 2008 to 97% in 2009), developing their technology literacy (increase from 87% in 2008 to 92% in 2009), and developing their information literacy (increase from 68% in 2008 to 79% in 2009). These items represent the three 21st century skills most closely tied to a technology-intensive curriculum, suggesting NCVPS continues to improve the quality of its courses with new tools and online activities.

Significantly more teachers in 2009 agreed that NCVPS course content was sufficiently rigorous (increase from 90.6% in 2008 to 95.2% in 2009).

Significantly more teachers in 2009 agreed that NCVPS course assignments were sufficiently rigorous (increase from 88.4% in 2008 to 92.9% in 2009).

Significantly more teachers in 2009 agreed that NCVPS instructions for courses and assignments were clear and helpful (increase from 90.8% in 2008 to 97.5% in 2009).

Significantly more teachers in 2009 agreed that they provided content and assignments to address students' different levels of understanding, and this increase was sizeable from 79% in 2008 to 90.9% in 2009, hinting at an increase in differentiated instruction.

Significantly more teachers in 2009 agreed that NCVPS teachers use 21st century tools such as wikis, blogs, and podcasts, and this increase was highly significant from 54% in 2008 to 88% in 2009 hinting at an extensive increase in the use of 21st century tools in just one year's time.

Student Success

More than 75% of students, teachers, and distance learning advisors agreed that students were succeeding in their NCVPS courses. Not surprisingly, the higher the level of student, the more likely the teachers were to agree that they were succeeding in their online course. AP teachers were most likely to agree students were succeeding at 100% while only 55.6% of credit recovery teachers reported the same.

When asked to report if NCVPS students were succeeding in their online courses, career technical students were significantly more likely to agree with success at 82.2% compared to foreign language students at 68.3%. Almost three-fourths of students in all course types agreed they were succeeding in NCVPS courses with the exception of foreign language where the perception of success was reduced.

When asked if they were learning more online than in comparable face-to-face classes, credit recovery students were significantly more likely than students at other course levels to agree they were learning more online at 46.8%, perhaps because they were really were experiencing more success online in what was their second chance to take a class they failed face-to-face. AP students were the least likely to agree they were learning more online at 15.9%, probably because they were already successful in their face-to-face classes with little room to improve their success regardless of format--online or face-to-face.

When asked to report if they were learning more in their online course compared to face-to-face, English/language arts students were the most likely to report they were learning more at 48.1% compared to foreign language students at 18.9%. This result is not overly surprising given the difficulty in teaching foreign language online, a highly verbal and collaborative enterprise.

Advocacy for NCVPS

More than 66% of teachers, distance learning advisors, and principals surveyed would recommend more students take NCVPS courses. AP students were significantly less likely at 47% to recommend more students take NCVPS classes than other course levels, perhaps because they were the group most likely to achieve success regardless of format--online versus face-to-face, so they were more ambivalent. English/language arts students were the most likely to recommend more students take NCVPS courses at 68.3% compared to 47.5% of math students.

Most students indicated desired courses were available online, with only 10% reporting problems getting into courses they wish to take, and only 11% reporting NCVPS is not offering the courses they need to take.

Only about one-half of students and teachers agreed that school-level and LEA administration were enthusiastic and supportive of online course opportunities. However, more than 88% of principals surveyed indicated they were enthusiastic about offering online course opportunities to students. If school leaders are indeed supportive of NCVPS, they may need to better communicate and encourage students to participate in online courses and work to streamline local procedures for enrolling and taking online courses.

Course Quality

More than 72% of students and 92% of teachers agreed that NCVPS course content and assignments were sufficiently rigorous. Approximately one third of students, however, reported too many assignments in their courses and a lack of time to complete all course assignments, particularly for career/technical and science courses.

Nearly two-thirds of students and more than three-fourths of teachers and DLAs agreed that NCVPS courses were supporting student attainment of five of the seven 21st century skill areas such as life and career skills, learning and innovation skills, and technology literacy. Fewer suggested civic literacy and an understanding of the global world were supported by courses, but this was partially dependent on subject area with significantly more students in classes like social studies suggesting the skills were supported compared to students in classes like math. English/language arts courses appeared to support the widest range of 21st century skills, while foreign language and math supported significantly less.

Significantly more credit recovery students agreed that their courses supported 21st century skills than some other course levels, however significantly fewer credit recovery teachers agreed that their courses supported 21st century skills. The difference in opinion could be attributed to credit recovery students not understanding the definition for some 21st century skills. If teacher results are indeed more valid, NCVPS may need to evaluate credit recovery courses further to ensure they include a range of 21st century assignments.

A significant pattern emerged in terms of how students rated 21st century skills supported by their courses. English/language arts students and to a lesser extent career/technical and social studies students, agreed more often that their courses supported different 21st century skills. Students in English/language arts reported by far the most 21st century skills being supported by their courses. On the other hand, foreign language and math students ALWAYS agreed to a significantly lesser extent than other course types that their courses supported 21st century skills. NCVPS may wish to evaluate the foreign language and math curriculum in particular to ensure teaching strategies and assignments are supportive of a diverse range of skills.

A possible pattern was detected in which students who believed they had too many assignments in a course were also reporting they had too little time to complete their assignments. Students in career/technical courses and science courses fit this pattern, while students in math courses reported an opposite pattern, rejecting the notion that they had too many assignments and suggesting they had plenty of time to complete assignments. NCVPS may wish to further evaluate the curriculum in these courses to ensure a realistic amount of content and work is provided for in career/technical and science courses with the possibility of adding further activities to some math courses.

Students in career/technical, science, and foreign language courses were significantly less likely to agree that their courses included clear and helpful instructions compared to other subject areas.

NCVPS may wish to further evaluate the curriculum in these courses to improve the coherence of directions.

Teaching Quality

Data provide strong evidence that NCVPS teachers are trained and doing a good job teaching online. More than three-fourths of students and distance learning advisors agreed that teachers were appropriately prepared to teach online. Almost 100% of teachers agreed that they were notified of professional development opportunities by NCVPS and participated in the same.

Significantly fewer foreign language students at 71.7% agreed that their teachers were adequately prepared than students in English/language arts at 83.4% and social studies at 79.1%, although 71.7% is still a good indicator of preparation. The reduced perception of teacher preparation in foreign language courses could be resulting from a content-related perception that foreign language teachers will support synchronous communication and auditory discussion/listening which can be challenging to achieve online.

While 60-82% of AP students agreed with a number of teacher quality variables, they were less likely to agree overall, particularly when compared to credit recovery students. AP students may have had a higher expectation for teachers with whom they've been successful in the past, as opposed to credit recovery students having a lower expectation for teachers with whom they've lacked success in the past.

English/language arts students were the most likely to agree with a number of teacher quality variables, while foreign language and math students were less likely to agree. This finding might suggest further targeted professional development could be applied to foreign language and math instructors, particularly around differentiation, using 21st century tools (i.e., wikis, blogs), how to encourage study strategies, and how to teach online.

Significantly more foreign language and English/language arts instructors agreed their NCVPS professional development was supporting 21st century teaching across several items compared to math and science teachers, suggesting the possibility of improving the curriculum and professional development around math and science to incorporate more 21st century teaching (e.g., life and career skills, information literacy, understanding of the global world, group collaboration).

Advising Quality

More than a quarter of students surveyed reported a lack of distance learning advisor support at the school level was a barrier to taking NCVPS courses. More than 85% of teachers agreed it was a barrier for at least some students. Further, only 50-60% of students agreed that advisors were adequately addressing a host of advising duties, suggesting many students were not receiving expected services. The lack of DLA support for some students could be related to the nature of the role being full-time for only 27% of surveyed DLAs. A majority of DLAs serve in other school roles, and depending on the number of advisees (mean of 73 per advisor), they must attempt to fit in multiple DLA tasks on top of their regular school role, including marketing, registration, monitoring grades, and counseling students to stay on task--the four roles DLAs indicated consumed the most of their time.

AP students were significantly less likely at 40.8% to agree that they were provided adequate guidance on the difference in online education versus the face-to-face environment, a task best associated with distance learning advisors (DLAs). Also, AP students reported receiving significantly lower levels of orientation to NCVPS, explanations of online learning expectations, and coaching compared to students at other course levels. DLAs may be directing less support to more advanced students who they assume will more readily and successfully migrate to an online environment.

When asked if lack of advisor support was a barrier for students, significantly more teachers of career/technical courses at 95.2% and science courses at 83.3% agreed it was compared to teachers of English/language arts courses at 54.5%. This finding may result from technical/scientific courses requiring more equipment and/or advanced Web applications for which students might need further support.

Student Barriers to Success in NCVPS Courses

Teachers and DLAs commented that one of students' biggest barriers to using NCVPS courses was a lack of self-directedness in young learners more familiar with supervised environments. Fortunately, 85% of students agreed that they were made aware of the importance of self-discipline to stay on track and succeed in online courses.

More than 80% of students indicated they had appropriate access to computers and the Internet to take NCVPS courses, so adequate infrastructure appears to be available to most students. School-based computers are still the primary source of access for more than 47% of students, with only 34% primarily using home-owned computers.

Teachers recommended NCVPS provide school lab facilitators with a standard lab setup scheme listing all peripherals needed such as headsets, as well as support to ensure school firewalls did not block course content. Students recommended NCVPS provide school lab facilitators with a standard software setup scheme to ensure access to programs needed to access course content (e.g., Quicktime).

Between 40 and 60 percent of students, teachers, and DLAs reported technical problems did affect student experiences with NCVPS, and only half of students agreed that technical support was adequate. However, significantly fewer students and teachers indicated that technical problems affected experiences with their online courses this year compared to the previous year, suggesting NCVPS is improving technical concerns. Significantly more students in science and foreign language at 49.1% and 46.0% reported that technical problems affected experiences with their course compared to other course types ranging from 34-41%, perhaps resulting from more novel and complex Web applications.

Credit recovery students were significantly more likely to agree at 27.7% that a lack of technical expertise was a barrier to students taking NCVPS courses compared to the three other course levels between 11-17%, suggesting they may have less technical skill than students at other levels.

Honors and AP students at 85.1% and 82.2% were significantly more likely than credit recovery or general studies students at 74.6% and 79.7% to agree that having a computer away from school led to a more successful online learning experience, slightly more aware of the value in a computer tool.

When asked if having a computer away from school would provide for a more successful NCVPS experience, significantly more students in social studies at 85.5% agreed it would compared to 76.4%

in career/technical and 79.3% in foreign language. The percentage difference is small, however, and more than three-fourths of students in all course types agreed having a computer away from school would be helpful.

AP students were less likely to agree with leveraging businesses and organizations to provide take-home laptops or to fund Internet access at home, possibly because AP students already had access to such resources.

Credit recovery students at 26.3% were significantly more likely than students at other course levels to agree that a lack of access to computers at school was a barrier, perhaps because school computers were a primary source of access for some of them while students at other levels were able to leverage computers at home.

Credit recovery students were significantly more likely than students at other levels to report Internet connectivity as a barrier to using NCVPS courses, both at school (27.1%) and in the home (30.3%).

What does the data say?	What does the data not say?	What are the accomplishments?	What are the OFIs?	What are the action steps?
Career Tech courses are highly successful (cj)	Specific courses, future drive (prediction)	We've already established a working rapport with CTE (Karen) and DPI CTE ("Mary Jo").	With budget constraints pulling CTE courses from the f2f environment, SSS will need to continue close rapport and networking with DPI CTE Division to determine where our need best fits.	Partner with Karen and DPI CTE ("Mary Jo").
Foreign Languages on low end of success. (cj)	The barriers. What methods/techniques are working vs. those not. What teachers are strongest, vs. others who may not apply as good of strategies/support.	Variety offered, Increased sections.	1) Coaching to DLAs - challenges of online WL courses. 2) Network more closely with C&I/teachers - define and deeply implement what works best for students vs. what doesn't. 3) Evaluate the stats - which teachers are more successful. Which language(s) are more successful. 4) What field (DLA/school) strategies aid to success rate.	1) Identify DLAs/counties to assist with study. 2) Evaluate teacher stats/successful strategies, WL offered and successful rate.
Higher level student - Higher level of success (overall) (cj)	Percentage by what course type. Course enrollments by school "push" vs. student desire?	HS are our priority. Still opening to MS, and promoting the experience at MS level still seems to be a coaching strategy preparing students for success to take more courses in HS.	Discipline coaching - videos/more student intervention. Also awareness to DLAs/schools.	1) School Services surveying. 2) DLA/school studies. 3) Work in with pilot work. 4) Create Discipline Coaching module.
Admin becoming more acquainted / aware	No specifics for what works for the Admin and what doesn't.	Continued networking, exposure, presentation opportunities, consistent messaging/communications, encouraging DLAs to remain in the loop with admins, parent push.	Continue consistent communications and messaging. Take advantage of awareness opportunities.	