

MONITORING REPORT: Policy R-2.4 (Academic Achievement: Technology)

PHASE ONE: Interpretation, Benchmark Data, and Goals

DATE: May 2019

Policy

All students will master the skills and demonstrate proficiency in each required discipline and electives:

Discipline: Technology

Interpretation

We understand this policy expresses the Board's expectation that we embrace transformative digital learning in an effective and equitable manner. To this end, the Board expects all students in each grade band to demonstrate mastery of -- or progress toward meeting -- state-defined technology performance standards.

Technology is everywhere in our world and becoming ubiquitous in our schools as well. According to a report entitled "Technology in Education: An Overview" published in the February 5, 2016 edition of *Education Week*, "Public schools in the United States provide at least one computer for every five students. They spend more than \$3 billion per year on digital content. Led by the federal government, the country is in the midst of a massive effort to make affordable high-speed Internet and free online teaching resources available to even the most rural and remote schools. And in 2015-16, for the first time, more state standardized tests for the elementary and middle grades [were] administered via technology than by paper and pencil." *And that was three years ago -- the equivalent of at least one or two generations in the universe of technology.*

While Board members are clear that our School District is in the learning business, not the technology business, they also recognize that educational technology can be a powerful tool for improving the learning outcomes of students. Although it is difficult to draw a direct correlation between technology and increased student achievement, a body of research shows valuable shifts in learning activities. Students with laptops write more frequently and across a wider variety of genres than their peers who have not been issued devices. They also receive more feedback about their writing. Students with laptops are more likely to edit and revise their papers, draw upon a wider range of resources to write about, and publish or share their work with others more often. Students in 1:1 classrooms are provided more collaborative learning experiences and are more likely to be able to synthesize and critically apply knowledge. In short, technology used effectively can facilitate more frequent use of research-proven, high-impact instructional strategies.

While Board members do not view technology as an end unto itself, they understand that new technologies can also help schools meet the needs of ever-more-diverse student populations. Digital devices, software, and learning platforms can offer a once-unimaginable array of options for tailoring education to each individual student's academic strengths and weaknesses, interests and motivations, personal preferences, and optimal pace of learning. In short, technology used effectively can make differentiation -- one of the critical keys to instructional equity -- a reality.

Instructional effectiveness and equity were key values underscoring the Board's support for a plan to implement a 1:1 technology platform in Ferndale's secondary schools. Beginning in the fall of 2013 with the provision of 24/7 access to devices for all students in grades 6-8, the District's plan was fully realized in the fall of 2017 when every student in grades 6-12 was issued a device. Likewise, instructional effectiveness and equity were the values that motivated Summer Technology Boot Camps aimed at equipping teachers with skills to realize the power of 1:1 technology in their classrooms.

While our District has been at the forefront of educational technology in our region and state, we understand that we still have considerable work to do. We acknowledge this particular policy expresses the Board's expectation that we continue to improve our use of technology to enhance students' educational experiences by:

- Allowing teachers and software to deliver more personalized content and lessons to students, while allowing students to learn at their own pace and ability level.
- Empowering students to do more complex and creative work by allowing them to use digital and online applications and tools.
- Helping students to become technologically skilled and literate and thus better prepared for modern workplaces.
- Improving the administration and management of schools and classrooms by making it easier to gather information on what students know and have done.
- Improving communications among students, teachers, and parents.
- **Ensuring an ongoing and embedded system of professional development for teachers so they can continually improve and refine their use of technology to enhance student learning.**

Washington State Technology Requirements

Part of the Washington Basic Education Act requires schools to "integrate technology literacy and fluency" into the curriculum. The 2018 updated K-12 Educational Technology Learning Standards are based on the Technology Standards for Students that were released by the International Society for Technology in Education (ISTE). They emphasize the various ways technology can be used to amplify and transform learning and teaching.

These newly adopted State Education Technology Standards resonate with our District's aspiration to empower connected learners to navigate effectively in a connected world and to launch them successfully on a career and/or college pathway.

The standards are designed as performance expectations that will work compatibly and practically within a school's teaching and learning environment. In most cases, assessments are integrated into the core content areas of science, math, health, English/language arts, social studies, and the arts.

As with other learning standards, the new 2018 Education Technology Standards provide the following:

- ✓ Samples of student performance: Specific illustrations of “what it looks like in the classroom” in each grade band.
- ✓ Connected standards: Logical connections to other content areas at approximately the same grade that also have similar cognitive demand.
- ✓ Sample scope and sequence that districts may choose to use or adapt.

At all grade bands (elementary, middle, and high school), the assessment of educational technology is not a requirement by law, but rather presented as good practice. RCW 28A.655.075 suggests that the assessments be project-based so that they can be embedded into classroom instruction. Using either assessments designed by the Office of the Superintendent of Public Instruction (OSPI) or those developed locally, we are required to report to OSPI a summary of our technology assessment efforts by June 30 of each year.

Implementation in the Ferndale School District of Washington State Technology Standards

Since the State Educational Technology Standards and reporting guidelines were adopted last year, we have been working with our teachers to develop a process and protocol for integrating content-based technology assignments and assessments into our curriculum. We anticipate this will be an 18-month process. Below is a summary of how we are working to make effective connections between educational technology performance standards and classroom-based content standards.

At the ELEMENTARY level, Ferndale teachers are planning to use both the OSPI integrated checklists and assessments to determine student progress toward meeting State Education Technology Standards. Teachers in grades K-2 are using a simplified checklist of skills. For our early learners, the OSPI checklist allows staff to provide evidence that the appropriate educational technology standard has been *Introduced, Practiced, or Reinforced*. Teachers in grades 3-5 are working to integrate educational technology standards into the classroom-based assessments they are already administering in science, math, health, English/language arts, social studies, and/or the arts. For example, many of our students in grade 4 complete the “Dig Deep” classroom-based assessment for Social Studies, which also includes a technology component.

In the chart below, we have summarized the data about elementary assessments that include a technology component, which we currently have available.

Ferndale School District

Elementary Classroom-based Integrated Assessment <i>2018 Data</i> Number of Grade 5 Assessments (not unique number of students)			
You Decide (Social Studies)	What a Find, Cat Food Commercial (Arts)	Get Fit Summer (Health/PE)	Total Grade 5 Assessments
146	271	308	725

Ferndale School District K-2 Checklist Educational Technology <i>2018 Data</i>				
GLE	Skill	K	1	2
2.1.2	Demonstrate appropriate behavior for technology use.	Introduced	Practiced	Reinforced
	Show respect for technology equipment.	Introduced	Practiced	Reinforced
2.2.1	Turn on the computer correctly.	Introduced	Practiced	Reinforced
	Shut down the computer correctly.	Introduced	Practiced	Reinforced
	Use left- and right-hand side of keyboard, with thumb on spacebar and little finger on the Enter key.	Introduced	Practiced	
	Demonstrate correct placement of fingers on the home row of keyboard.	Introduced	Practiced	
	Demonstrate ability to save and retrieve a file to and from a specified folder.		Introduced	Practiced
	Use the mouse.	Reinforced		
	Know the basic parts of the computer by name.	Introduced	Practiced	Reinforced
	Print a file or Web page.		Introduced	Practiced
	Recognize and use desktop/toolbar icons and menus.	Introduced	Practiced	Reinforced
2.2.2	Use digital equipment to share work with class.		Introduced	Practiced
2.3.1	Communicate learning with a word processing or publishing program.		Introduced	Practiced
	Open files or applications correctly.		Introduced	Practiced

At the MIDDLE level, technology use has steadily grown to become an integral component of teachers' instructional practice and student learning since we first introduced our 1:1 computer program seven years ago. As with the elementary program, the State allows that technology assessments to be integrated in the content areas of science, math, health, English/language arts, social studies, and the arts. At the middle level, however, students are currently enrolled in dedicated technology education courses at each grade level, so many of the State's technology standards are being assessed there.

The new State Education Technology Standards, adopted in 2018 and defined by OSPI, are causing us to re-examine our current model of providing stand-alone technology courses. The new Standards include a set of performance expectations all students should meet by the end of Grade 8. This grade span approach, along with our own research and continued learning, are leading us toward a stronger integration model. In grades 6-8, technology standards and subsequent assessments can -- and should -- be fully integrated into the classroom-based assessments our teachers are already administering. For example, the social studies grade band classroom-based assessment we are administering to students in Grade 7 encourages strong technology integration.

In the chart below, we have summarized the data we currently have available about middle level classroom-based assessments with a technology component.

Ferndale School District Middle School Classroom Based Integrated Assessment 2018 Total number of Assessments (not unique number of students)			
Checks & Balances, Dig Deep, Government Essay, Constitution (Social Studies)	Festival Time (Art)	Concepts of Health & Fitness, Fitness Plan, Sara’s Story (Health/Fitness)	Total Middle School Assessments
508	50	305	863

As in our middle schools, the HIGH SCHOOL has now transitioned fully to a 1:1 model. Beginning with grades 6-8 in 2013-2014, we added the 1:1 devices to an additional grade level each year until we achieved full deployment. As at the middle school level, at the high school level assessment of State Education Technology Standards can be integrated into the content areas of science, math, health, English/language arts, social studies, and the arts. And also, as with the middle school, the high school standards defined by OSPI are expressed in terms of performance expectations students should achieve by the end of their high school careers, rather than at any particular grade level, providing teachers and students with the latitude to create a strong technology integration model.

In the chart below, we have summarized the data we currently have available about high school level classroom-based assessments with technology components.

Ferndale School District High School Classroom Based Integrated Assessment			
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<p style="text-align: center;"><i>2018</i></p> <p style="text-align: center;">Total number of Assessments (Not unique number of students)</p>			
Checks & Balances, Law Clerk Project (Social Studies)	Festival Time, Picture This, A Zoo Mug (Art)	New Student Orientation, Fitness Plan, (Health/Fitness)	Total High School Assessments
230	235	392	857

Improvement Goals

Creating this report has made us recognize places where we need to strengthen our technology program, the way we assess it, and the way we report out on the progress we are making. As such, we have established the following goals related to Technology for the year ahead:

1. All teachers in Grades K-2 will complete the Checklist of Student Skills for Grades K-2.

The OSPI-developed assessments for educational technology begin in Grade 3. However, we understand that our students start using and engaging with technology long before that. Students in Grades K-2 use technology to collaborate, communicate, generate ideas, and solve problems. It is therefore important that they receive appropriate instruction. By recording our work on specific learning targets using the OSPI-provided checklists, we will be better able to assess gaps and strengthen instruction to ensure our youngest students are well prepared to take advantage of technology-rich learning environments throughout their school careers.

2. Middle and High School level teams will map out which classroom-based assessments will be used to ensure all the integrated educational technology standards have been covered.

The integrated educational technology assessments connect to a wide variety of content areas throughout the secondary curriculum. The work we need to do in this area is less about creating something new than about mapping out a guaranteed route to ensure all students are exposed to all of the standards.

3. All students beginning in Grade 3 will receive annual training in current best practices related to digital citizenship and media literacy.

~~Ferndale School District students are already consumers and creators of information and ideas. This goal is about promoting cross-curricular integration of digital citizenship, media literacy, and instructional leadership for all learners in Grades 3-12. We see this work as foundational to preparing them to be active, ethical, responsible, and safe participants in the digital world.~~

Ferndale School District students already use technology to consume and create information and ideas, which means they are already exposed to some of the possible dangers of venturing into cyberspace. This goal speaks of our intent to provide them with annual training on digital safety and clear expectations about what it means to be good digital citizens. The cross-curricular training we envision will focus on such topics as becoming media literate, evaluating online sources, respecting one's digital footprint, protecting privacy, and addressing cyber bullying. We see this work as foundational to preparing our students to be active, ethical, responsible, and safe participants in the digital world.

4. At the District level, we will review, reiterate, and publish an updated version of our educational vision for the use of technology in our schools.

Without a clearly communicated vision of how teaching and learning is expected to change with technology, we will be hampered in our ability to move forward. All teachers need to have the same understanding that our primary goal is to create high-quality teaching and learning experiences that meet the needs and strengths of all learners, so they can select and implement the right tools in ways that enhance instruction, address student needs, and meet curricular goals.

5. We will develop a model for providing more technology-focused instructional coaching for our classroom teachers.

The research is clear that initiative rollouts of any kind in schools are much more likely to be successful when investments are made in developing a cadre of coaches who have the time, skills, space, and role clarity required to help their colleagues enact them. We understand that, if we truly want educational technology to take root and live up to its promise, we need to support individuals and teams of teachers to help them thoughtfully and meaningfully integrate technology into their classes in ways that feel sustainable. With such support, we believe educators can drastically improve the speed, efficiency, and elegance with which they use technology to meet their teaching and learning goals.

6. We need to review and revise our Long-Range Technology Plan to ensure both implementation fidelity and sustainability.

Considering the lightning pace of change in the world of technology -- and the amount of resources we are devoting to this learning tool -- we need to incorporate into our annual protocols a careful review of our long-range technology plan and budget. Once again considering the lightning pace, we recognize that in this context "long-range" is probably no more than three to five years.

7. We will develop a system to improve our data collection related to technology.

Our goal is to be as empirical as possible in our data collection process by using surveys, test questions, student grades, and observation -- as well as the classroom-based assessments referenced above. In order to set goals about utilizing educational technology to its maximum potential, we need to be meticulous about data collection, data reporting, and data analysis. Regarding the latter, we need not only to interpret numerical factors but also behavioral factors.