Contoocook Valley
School District
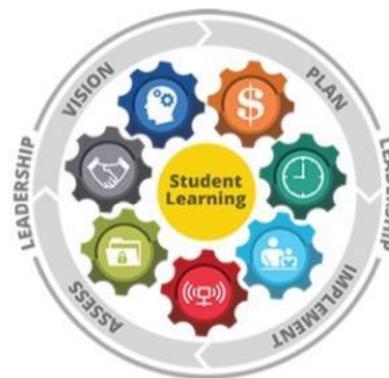

Technology Plan
2019-2022

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Executive Summary

The 2019-2022 ConVal School District Technology Plan builds on the district's previous technology plans, most recently the 2016-2019 Technology Plan.

In a departure from previous organizational principles, the current technology plan is organized following the [Future Ready Framework](#) in order to further support the district's commitment to preparing students for success in college, career, and citizenship.

The Framework's seven key categories — called "gears" — are as follows:

1. Curriculum, Instruction, and Assessment
2. Use of Space and Time
3. Robust Infrastructure
4. Data and Privacy
5. Community Partnerships
6. Personalized Professional Learning
7. Budget and Resources

An overarching eighth element, Collaborative Leadership, applies to and guides all gears equally.

Since the new organizational structure significantly revises and expands the previously used categories (access to technology, ICT literacy, professional development, community collaboration), this document is intended to help shift the emphasis from hardware and infrastructure to a sharper focus on teaching and learning.

In laying out the goals for the next three years, each of the gears is examined in terms of:

- current status according to the Future Ready Framework survey results,
- proposed action steps for the time period covered in the technology plan, and
- connections to the existing district strategic plan, which will end in 2021.

Broadly speaking, the planned action steps will fall into three broad categories: continuing,[1] revising,[2] and introducing.[3]

The 2019-2022 ConVal Technology Plan provides an intentional roadmap for the district's blended learning environment which orients, supports, and scaffolds student learning and technology skills as they successfully prepare for college and career.

Respectfully submitted,

The Members of the Technology Plan Committee

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[1] E.g.: 1:1 Chromebook initiative, blended learning environment, K-12 tech competencies (ISTE NETS)

[2] E.g.: opening of student email beyond "walled garden," revision of existing budgetary processes

[3] E.g.: extension of Google Classroom into primary grades, two-way communication systems

Overview of the ConVal School District

District Mission Statement

To provide opportunities and inspire our learners to explore interests, pursue new knowledge and skills, learn about self and others, and give of oneself to the greater community.

Vision

In the ConVal community, all learners will achieve academically, act thoughtfully, and contribute to the larger society.

Core Beliefs

These beliefs are those ideals, thoughts, and attributes that we feel must exist for our students, our community, and our society to thrive.

- We believe that "All must mean All." We must provide the opportunity for each and every student to reach his/her maximum potential.
- We believe that there is not only one path to student success and achievement.
- We must offer students a variety of learning opportunities to achieve his/her version of success.
- Although we value the unique characteristics of each of our schools, we believe that all ConVal schools should provide a guaranteed, viable curriculum and be equitable in terms of learning opportunities and services.
- We believe that ConVal should continue to participate and "give back" to our local communities.
- ConVal is committed to full inclusion for students with disabilities. Conval will ensure teachers and staff are supported to ensure all students have access to rigorous curriculum within the general education setting and by presuming competence of all students.
- We believe that understanding the learning process is paramount to our work, we are committed to knowing when students are and are not learning, and we believe that it is our responsibility to ensure that learning and student growth occur.
- We believe that positive relationships are the fundamental building block for learning.

District Overview

The Contoocook Valley Regional School District (ConVal) is located in the Monadnock region of southwestern New Hampshire. The school district's central office is located in Peterborough, the hub of a nine-town district. The District spans an area of 250 square miles. Distance and isolation create huge challenges for ConVal. Technology is seen as a potential equalizer for schools separated by miles of country roads.

The school district services approximately 2,200 students from nine towns. There are eight elementary schools distributed throughout the District, two middle schools, and one

regional high school. ConVal High School is a member of the three-district Region 14 Applied Technology Center (ATC).

The Technology Plan Committee is committed to an annual review of progress. That review may result in adjustments of stated goals which will be captured collectively in Appendix B.

This plan captures the desired future for our District's interactive program that intentionally integrates technology effectively and consistently in every grade level and across the district.

Vision for Blended Learning

The ConVal School District's vision for blended learning is driven by our desire to provide educational equity and excellence. We are committed to designing learning environments and experiences that ensure success for *all* students—learning environments and experiences that overcome the impact of factors that are all too frequently correlated with lower levels of achievement in our district (i.e., economic status and having a disability).

The ConVal School District recognizes the important and interdependent relationship that exists between educational equity, personalized learning, and technology-infused environments. When exploring this relationship, it is helpful to think of educational equity as the big idea, personalized learning as the approach, and technology as the tool.

Starting with the big idea, Mary Ann Wolf (2010) offers a definition of educational equity that emphasizes the important role of personalization:

> Educational equity is not simply about equal access and inputs, but ensuring that a student's educational path, curriculum, instruction, and schedule be personalized to meet her unique needs, inside and outside of school. Educational equity meets each child where she is and helps her achieve her potential through a wide range of resources and strategies appropriate for her learning style, abilities, and interests, as well as social, emotional, and physical situation (p.6).

Moving onto the approach, Rickabaugh (2016) offers a definition of personalized learning that reiterates a key theme found in Wolf's definition of educational equity—focus on meeting the unique needs of students and supporting them to reach their potential:

> An approach to learning and instruction that is designed around individual learner readiness, strengths, needs, and interests. Learners are active participants in setting goals, planning learning paths, tracking progress, and determining how learning will be demonstrated. At any given time, learning objectives, content, methods, and pacing are likely to vary from learner to learner as they pursue proficiency aligned to established standards (p. 6).

Finally, Wolf (2010) describes the critical role technology plays in providing students with personalized learning experiences:

Personalized learning requires not only a shift in the design of schooling, but also a leveraging of modern technologies. Personalization cannot take place at scale without technology. Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources and learning opportunities needed to meet each student's needs everywhere at anytime, but which are not all available within the four walls of the traditional classroom (p.6).

The ConVal School District recognizes the essential role technology in plays in providing students with personalized learning experiences, including:

- Providing immediate, specific, objective feedback on learning that can also serve as a dialogue trail about learning efforts and activities.
- Sustaining motivation by providing choices of relevant content, customized learning pathways, and varying levels of difficulty.
- Capturing real-time data that support analysis and tracking of student learning.
- Supporting student reflection on learning strategies, challenges, ideas, and experiences and facilitating the sharing of reflections with others.
- Seeking out, identifying, and contributing additional learning content and tools to support individual and group learning.
- Tracking progress on learning goals, action plans, student achievement, and assessments.
- Providing multiple means for learners to acquire, express, and engage with information.
- Communicating and collaborating with others.
- Introducing and supporting learning challenges and simulations.
- Exploring and learning from perspectives beyond geographic boundaries
- Supporting embedded assessments in the form of simulations, virtual worlds, augmented realities, and game-based performances.
  (Rickbaugh, 2016, pp. 9-11).

Technology Plan Committee Members

Library, Integration, and Technology Services Team Members

- Rachael Bowman, Librarian, ConVal Regional High School
- Kevin Carne, Systems Administrator, ConVal Regional High School
- Marcia deSteuben, Librarian, Peterborough Elementary School
- Angel Early, Systems Administrator, ConVal Elementary Schools
- Matthew Hale, Systems Administrator, Great Brook Middle School
- Sarah Hale, Technology Integrator, Great Brook Middle School
- Alex Kendall, Librarian, Dublin, Hancock, and Pierce Elementary Schools
- Ashley Jones, Librarian, ConVal Regional High School
- Nicole Murray, Librarian, Francestown, Greenfield, and Temple Elementary Schools
- San Murray, Technology Integrator, South Meadow Middle School
- Heather Stearns, Librarian, South Meadow Middle School
- Christopher Stultz, Librarian, Antrim Elementary School
- Jonathan White, Systems Administrator, South Meadow Middle School
- Helfried Zrzavy, Technology Integrator, ConVal Regional High School

Building Administrators

- Katherine Foecking, Elementary School
- Jim Elder, Principal, Great Brook Middle School
- Anne O'Bryant, Principal, South Meadow Middle School
- Michelle Voto, Dean of Faculty, ConVal Regional High School
- Gib West, Principal, ConVal Regional High School

District Administrators

- Dr. Ann Forrest, Assistant Superintendent, SAU 1
- Dr. Kimberly Rizzo Saunders, Superintendent, SAU 1

School Board Members

- Rich Cahoon, ConVal School Board
- Niki McGettigan, ConVal School Board

1. Curriculum, Instruction, and Assessment

Through a more flexible, consistent, and personalized approach to academic content design, instruction, and assessment, teachers will have robust and adaptive tools to customize the instruction for groups of students or on a student-to-student basis to ensure relevance and deep understanding of complex issues and topics.

Providing multiple sources of high-quality academic content offers students much greater opportunities to personalize learning and reflect on their own work, think critically, and engage frequently to enable a deeper understanding of complex topics.

Data are the building blocks of diagnostic, formative, and summative assessments — all of which are key elements in a system where learning is personalized, individualized, and differentiated to ensure learner success.[4]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
1.a. Integrate strategies to promote 21st-century skills/deeper learning outcomes into curriculum and instruction for all students.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Integrate identified National Education Technology Standards (*NETS*) into core maps and common assessments. **Grades K-12** • NETS-S 2 Digital Citizenship **Grades 5-12** • NETS-S 3 Knowledge Constructor **Grades 9-12** • NETS-S 6 Creative Communicator	Make any needed revisions to the integration of identified National Education Technology Standards (NETS) into core maps and common assessments	Assess and report students' attainment of identified National Education Technology Standards (*NETS)*	Focus Area 4.13 Develop a consistent K-12 Technology experience and set of competencies for students and staff (pp. 56-57). Focus Area 1.5 Students will become partners in their own education and in the process of their own learning (pp. 34-35).

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[4] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 4.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
1.b. Design curriculum and instruction that leverage technology and diverse learning resources to enable all students to personalize their learning with choices and control.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Review District documents that describe personalized learning. Consult additional resources if needed. Craft a definition of personalized learning to be adopted districtwide.	Communicate the vision and definition of personalized learning to stakeholders.	The district's common vision for personalized learning is further expanded to include rich scenarios of practice in multiple grade levels and content areas.	Focus Area 1.5 Students will become partners in their own education and in the process of their own learning (pp. 34-35).
1.c. Develop curriculum and instruction that provide each student the opportunity to solve real-world problems and encourage collaboration with students, educators, and others outside of the school environment.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Incorporate into the Curriculum Review Process procedures for identifying and evaluating opportunities for authentic learning, opportunities that (a) involve real-world problems, (b) involve open-ended inquiry, (c) engage students in discourse and (d) allow students to direct their own learning..	Make any needed changes to the procedure(s) developed during the 2019-2020 school year. Identify and provide any needed professional development, supporting teachers to develop and implement authentic learning opportunities for students.	Make any needed changes to the procedure(s) first developed during the 2019-2020 school year. Identify and provide any needed professional development, supporting teachers to develop and implement authentic learning opportunities for students.	Focus Area 2.2 The School District will promote collaboration between students, staff, and community by demonstrating respect for self, peers, adults, and the facility. (pp.. 37-38).

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
1.d. Integrate technology seamlessly in the teaching and learning process while assuring that the use of technology adds value to learning for all students.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Set up Learn Platform Library. including identifying and tag-ging EdTech resources and uploading Student Data Privacy Agreements and Terms of Service. Introduce Learn Platform to teachers. Teachers set up MyLibrary, and start rating apps. Develop and refine the EdTech request process . Teachers submit requests for apps to be reviewed due by the last day of school.	Vet requests for new products to be added to the Learn Library. Teachers use Learn Platform to decide what apps they use. Teachers rate apps and share app resources. If needed, further develop and refine the EdTech request process . Teachers submit requests for apps to be reviewed due by the last day of school.	Vet requests for new products to be added to the Learn Library. Teachers use Learn Platform to decide what apps they use. Teachers rate apps and share app resources. If needed, further develop and refine the EdTech request process . Teachers request the review of additional EdTech resources by the last day of school..	Focus Area 1.1 The district will implement research-based learning frameworks, as they relate to content area, teaching strategies, critical thinking, and problem-solving skills to increase student learning and student achievement (pp. 26-28).

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
1.e. Provide opportunities for all schools to use digital and online assessment systems that provide all students and teachers with real-time feedback in ways that increase the rate and depth of learning, and that enable data-informed instructional decision making.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Review and map the use of digital assessments, as well as any related protocols for using technology to collect student data, access student data, secure student data, and analyze student data to inform and strengthen teaching and learning.. Identify any areas of need.	If needed, explore and pilot the use of EdTech tools and resources that would potentially address areas of need identified during the review and mapping of digital assessments. Develop (or revise existing) protocols to address identified areas of need related to collecting, accessing, securing, and/or analyzing student data.	If needed, provide professional development for the implementation of digital assessments and/or related protocols that are new to the district.	Focus Area 1.3 The School District will utilize a balanced student assessment program to assess student progress toward curriculum goals, inform instruction, and determine appropriate intervention for students (p. 31-32).

2. Use of Space and Time

Student-centric learning requires changes in the way instructional time is used. There are new opportunities for utilizing in-school and out-of-school time, and leveraging approaches such as competency-based learning to make learning more personalized and learning opportunities more accessible. These new opportunities leverage technology to meet the needs, pace, interests, and preferences of the learner.

This transition is made possible through innovative uses of technology for assessing student learning, managing learning, engaging students in learning, disseminating content, and providing the infrastructure necessary to encourage flexible, anytime, anywhere learning opportunities.[5]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
2.a. By leveraging technology and media resources, students have options to learn any time of day, from home, school and/or community.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Research the need to provide expanded access to school networks and/or additional support in using digital learning tools and resources effectively.--e.g., Is there a need to extend the hours of the Library Learning Commons (LLC) to include supervised time before and/or after school for students without home access.	If appropriate (based on information gathered during the 2019-2020 SY), develop a proposal for providing expanded access to school networks and/or additional support in using digital learning tools and resources effectively. **Note:** Proposal would need to be presented before or during the development of the 2021-2022 budget.	If approved and included in the budget, implement expanded access to school networks and/or additional support in using digital learning tools and resources effectively.	Focus Area 4.11 The School District will provide equitable access to technology across all schools at each level (p. 55). Focus Area 4.13 Develop a consistent K-12 Technology experience and set of competencies for students and staff (pp. 56-57).

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[5] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 13.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
2.b. Teachers are transitioning to more student-centric environments, leveraging flexible uses of time to enable personalized learning for their students.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Develop, document, and communicate clear grade-span expectations for teachers and students related to their use of Google Classroom. . Expectations should support the flexible use of time and the ability to personalize learning opportunities for students. Develop a plan for monitoring and evaluating the use of Google Classroom.	Based on the evaluation of teachers' and students' use of Google Classroom: ● Make any needed changes to expectations. ● Provide professional development to support teachers to meet expectations.	Based on the evaluation of teachers' and students' use of Google Classroom: ● Make any needed changes to expectations. ● Provide professional development to support teachers to meet expectations.	Focus Area 1.5 Students will become partners in their own education and in the process of their own learning (pp. 34-35). Focus Area 4.15 The School District will create digital learning environments for students (p. 58).
2.c. Student progress is measured by performance and mastery, rather than attendance/seat time (competency-based learning).	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Continue to research current trends and best practices related to competency-based learning. models.	Involve key stakeholders in planning for the transition to a competency-based learning model.	Begin the implementation of transitioning to a competency-based learning model.	Focus Area 1.1 Implement research-based learning frameworks (pp, 26-28).

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
2.d. The district has moved away from rigid schedules and short class periods, toward instructional time allocations that are flexible, enabling extended work time for complex projects.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Continue to research current trends and best practices related to competency-based learning models.	Involve key stakeholders in planning for the transition to a competency-based learning model.	Begin the implementation of transitioning to a competency-based learning model.	Focus Area 1.1 Implement research-based learning frameworks (pp, 26-28).

3. Robust Infrastructure

When employed as part of a comprehensive educational strategy, the effective use of technology provides tools, resources, data, and supportive systems that increase teaching opportunities and promote efficiency. Such environments enable anytime, anywhere learning based on competency and mastery with empowered caring adults who are guiding the way for each student to succeed. High quality, high speed technology and infrastructure systems within a school district are essential to the advancing of digital learning.[6]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
3.a. Designing and implementing diverse and creative options to ensure that appropriate Internet-ready technology devices are available to students to support learning at any time.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Continue to support 1:1 device program. Establish standard computing platform for all classrooms. Explore what is required to facilitate expansion of Google Classroom into elementary grades.	Continue to support 1:1 device program. Implement standardized computing platform for all classroom-based devices. Expand Google Classroom into elementary grades.	Continue to support 1:1 device program. Implement equipment standardization in classrooms. Evaluate expansion of Google Classroom into elementary grades.	Focus Area 4.11 The School District will provide equitable access to technology across all schools at each level (p. 55).
3.b. Designing and implementing a network with adequate bandwidth and infrastructure to ensure ready and consistent access to online resources for teaching & learning.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Evaluate wireless density and capacity in light of evolving standards. Upgrade access points, switches and servers as needed. Devise enhanced redundant systems plan.	Implement enhanced redundant systems plan to ensure consistently ready access to online resources for teaching and learning.	Evaluate enhanced redundant systems plan to provide reliable access to online resources; revise and improve as indicated.	Focus Area 4.11 The School District will provide equitable access to technology across all schools at each level (p. 55).

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[6] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 21.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
3.c. Creating and implementing a support system that is characterized by a positive service orientation, is proactive, and provides resources, coaching and just-in time instruction to prepare teachers and students for the use of new technologies.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Revise and enhance disaster recovery plan. Review and revise service level support for software, hardware, and computing systems. Review technology training processes for Technology Integrators and Information Technology Staff.	Implement upgraded disaster recovery plan. Strengthen service level support for software, hardware, and computing systems. Implement intensified training for IT technology staff and technology integrators.	Review upgraded disaster recovery plan. Continue service level support for software, hardware, and computing systems. Continue intensified training for IT technology staff and technology integrators.	Focus Area 4.13 Develop a consistent K-12 Technology experience and set of competencies for students and staff (pp. 56-57).
3.d. Formalizing the review and replacement of all technologies in a cycle that is timely, proactive, and environmentally responsible..	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Review existing equipment life cycle standards. Replace infrastructure components, as needed, based on district infrastructure replacement plan.	Replace infrastructure components, as needed, based on district infrastructure replacement plan.	Replace infrastructure components, as needed, based on district infrastructure replacement plan.	Focus Area 4.11 The School District will provide equitable access to technology across all schools at each level (p. 55).

4. Data and Privacy

Data and privacy are foundational elements of digital learning. A personalized, learner-centered environment uses technology to collect, analyze, and organize data to improve the effectiveness and efficiency of learning. Data is the building block of diagnostic, formative, and summative assessments—all of which are key elements in a system where learning is personalized, individualized, and differentiated to ensure learner success. The district ensures that sound data privacy and security policies, procedures, and practices are in place at the district, school, classroom, and student levels.[7]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
4.a. The district has up-to-date policies, procedures, and practices that address the privacy and security of data that meet or exceed legal requirements and federal guidelines.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Evaluate current policies, procedures, practices, and systems for storing and accessing personally identifiable information. Identify any that do not meet or exceed minimum security standards.	Address any policies, procedures, practices, and/or systems that do not meet or exceed minimum security standards.	Continue to reinforce data security culture by adjusting and evolving practices as needed based on new threats.	Focus Area 1.3 Utilize a balanced student assessment program to assess student progress toward curriculum goals, inform instruction, and determine appropriate intervention for students (pp. 31-32).

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[7] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 29.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
4.b. The district operates digital data systems that enable secure data collection, analysis, reporting, storage, exchanges, and archiving for authorized users.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Monitor and evaluate the implementation of the District's Data Governance Manual. Identify and address any aspect of the plan that need to be strengthened.	Implement any changes to the District's Data Governance Manual Provide any needed training to ensure data security culture..	Implement any changes to the District's Data Governance Manual Provide any needed training to ensure data security culture..	
4.c. Evidence-based reasoning and data-driven decision making are part of the school and district culture for staff, students, and parents.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	District leaders explore formal expectations for data-driven decision making and evidence-based reasoning at the district and school levels.	District leaders collaborate using a holistic community based planning process to build transitional strategies that support a culture of evidence-based reasoning and data-informed decision making. The plan includes a timeline, budget, and path.	District leaders evaluate transitional strategies that support data-informed decision making, continue the work and make adjustments as needed.	Focus Area 1.3 Utilize a balanced student assessment program to assess student progress toward curriculum goals, inform instruction, and determine appropriate intervention for students (pp. 31-32).

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
4.d. All staff are knowledgeable and skilled in using data, technology, and data analytics to inform instruction, curriculum, assessment, and their own professional practices.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Using recently enacted legislation and current privacy standards as a starting point, district leaders develop a roadmap to an ongoing culture of data security.	District leaders set formal expectations for data-driven decision making and evidence-based reasoning at district and school levels.	District leaders integrate data analytics into school improvement plans, PD offerings, decision-making and budget processes; integrate evidence-based reasoning into student learning standards.	Focus Area 1.3 Utilize a balanced student assessment program to assess student progress toward curriculum goals, inform instruction, and determine appropriate intervention for students (pp. 31-32).

5. Community and Partnerships

Community partnerships include the formal and informal local and global community connections, collaborative projects, and relationships that advance the school's learning goals. Digital communications, online communities, social media, and digital learning environments often serve as connectors for these partnerships.[8]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
5.a. The district serves as a hub of the community and actively involves the community in achieving its learning goals	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Investigate, identify, and review surveys that assess "District Partnership Needs." Determine whether or not a "District Partnership Needs Assessment" survey should be conducted.	If the District decides to conduct a "District Partnership Needs Assessment" survey, plan for and administer the survey.	If the District decides to conduct a "District Partnership Needs Assessment" survey, incorporate the results from the survey into the District's 5-year Strategic Plan (2022-2027).	Focus Area 2.3 The School District will provide enhanced curricular opportunities through community partnerships (p. 38)..
5.b. The school district has deployed a digital learning environment with education programs that facilitate safe online peer-to-peer, student-teacher, and student-expert interactions.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Determine at what grade/age students should be able to use their district assigned email to communicate with individuals outside of the "walled garden" environment (community members, experts in the field).	Implement decision regarding the expanded use of e-communication by students and monitor for effectiveness. Align language in student handbooks to reflect expanded e-communication opportunities.	Continue to monitor expanded e-communication opportunities and make revisions as needed	Focus Area 2.5 The School District will provide clear communication tools for use by students, staff, and community (pp. 38-39).

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[8] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 35.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
5.c. The district has designed and deployed a robust digital communication system that is responsive to individual families as staff use it to draw parents into frequent interactions about their child's education.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Ascertain current practices for school-to-home and home-to-school communications. Determined preferred methods for school-to-home and home-to-school communication. Identify areas in need of improvement for school-to-home and home-to-school communications.	Based on year 1 assessment, explore additional means of communication that would strengthen school-to-home and home-to-school communications. Solutions may include both traditional (e.g., phone) and technology-based tools/means (e.g., interactive technologies that permit improved two-way communications).	Develop, implement, and publish a district-wide communication plan for school-to-home and home-to-school communications. The plan will include monitoring the effectiveness of the different communication venues, as well as the ease of use for end users.	Focus Area 2.5 The School District will provide clear communication tools for use by students, staff, and community (pp. 38-39)..
5.d. The district has built a brand that conveys preferred messaging with students' families, the community, and beyond.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Convene a district-wide committee to study and develop a common, forward-thinking vision of the district brand. Consult with branding experts.	Develop sound practices to build the brand — internally and externally — that represents visionary thinking and 21st century learning. Consult with internal and external experts to finalize design options.	Implement the new brand across the district. This includes standardized letterhead and logo, common language, common visual look.	Focus Area 2.5 The School District will provide clear communication tools for use by students, staff, and community (pp. 38-39)..

6. Professional Learning

Technology and digital learning can increase professional learning opportunities by expanding access to high-quality, ongoing, job-embedded opportunities for professional growth for teachers, administrators, and other education professionals. Such opportunities ultimately lead to improvements in student success and create broader understanding of the skills that comprise success in a digital age. Digital Professional learning communities, peer-to-peer lesson sharing, and better use of data and formative assessment, combined with less emphasis on "sit and get" professional development sessions eliminate the confines of geography and time.

These ever-increasing resources offer teachers and administrators vast new opportunities to collaborate, learn, share, and produce best practices with colleagues in school buildings across the country. Digital leaders establish this type of collaborative culture. They model and are transparent with their own learning. In addition, educators must be engaged in more collaborative, goal-oriented approaches to the evaluation of their own teaching to serve as a personal model for the experiences that they might bring to students.[9]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
6.a. Shared ownership and shared responsibility for professional growth of education professionals.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Survey staff regarding priorities and perceptions of existing elearning opportunities. (Revise current survey administered annually by the Professional Development Committee to gather this information.)	Based on the analysis of information gathered by the Professional Development Committee, expand and/or promote opportunities offered by the District for innovative uses of technology and eLearning.	Expanded opportunities for self-directed, personalized professional learning opportunities are clearly outlined while drafting the Professional Development Master Plan for 2022-2027.	Focus Area 4.7 Targeted professional development master plan... that supports each staff member's attainment of articulated District standards for exemplary performance (pp. 52-53).

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[9] Alliance for Excellent Education, Digital Learning Readiness Report (February 9, 2019), p. 42.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
6.b. New instructional practices and professional competencies necessary to support 21st Century Skills/deeper learning.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Continue to research current trends and best practices related to competency-based learning models., including a clear focus on "instructional practices and professional competencies necessary to support 21st Century Skills/deeper learning. "	Involve key stakeholders in planning for the support teachers and staff members will need to implement "new instructional practices and professional competencies necessary to support 21st Century Skills/deeper learning."	Implement and evaluate the impact of supports for teachers and staff members identified in the planning process.	Focus Area 1.1 Implement research-based learning frameworks (pp, 26-28).
6.c. Alternative, personalized models of professional development are enabled through technology and social media (i.e., EdCamps, Twitter Chats, etc.), and encouraged and supported through coherent district policies.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Survey staff regarding priorities and perceptions of existing elearning opportunities. (Revise current survey administered annually by the Professional Development Committee to gather this information.)	Based on the analysis of information gathered by the Professional Development Committee, expand and/or promote opportunities offered by the District for innovative uses of technology and eLearning.	Expanded opportunities for self-directed, personalized professional learning opportunities are clearly outlined while drafting the Professional Development Master Plan for 2022-2027.	Focus Area 4.7 Targeted professional development master plan... that supports each staff member's attainment of articulated District standards for exemplary performance (pp. 52-53).

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
6.d. New models for evaluation that involve education professionals in self-assessment, goal setting and professional collaboration in support of those goals.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Convene a committee made up of representatives from key stakeholder groups to review the current model of evaluation. Based on the review, propose any needed changes to the evaluation model.	Implement and monitor approved changes to the evaluation model used by the District.	Based on ongoing monitoring of the evaluation model, propose changes as needed.	Focus Area 4.6 Create an evaluation system that identifies best practices in all disciplines for each group of employees (p. 51).

7. Budget and Resources

An effective budget development and review process is guided by a deep understanding of school finance at the District, State and Federal levels. Funding a digital learning environment requires strategic, short-term and long-term budgeting that leverages the use of learning-enabling technology and resources to optimize student learning. All budgets at the district and the school level are aligned in order to prioritize student learning and cost-efficiency, with consistent funding streams for both recurring and non-recurring costs. The District's financial model includes the metrics and processes to determine Total Cost of Ownership (TCO) for developing and sustaining the digital learning environment and to ensure accountability for determining learning Return On Investment (ROI).[10]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
7.a. Policies, procedures and timelines exist for transitioning to cost-saving strategies that leverage digital systems, tools and resources.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	District leaders develop budgets and identify resources in support of systemic digital learning that offers efficiencies and cost savings (e.g., online courses, cloud computing solutions, digital resources to replace textbooks, "going paperless," etc.); seek standardization of classroom technology.	District leaders develop metrics to measure total cost of ownership (TCO) in transitioning to standardized classroom technology and digital learning environments.	District leaders report to stakeholders the total cost of ownership (TCO) in transitioning to standardized classroom technology and digital learning environments as well as any budgetary efficiencies that have been generated.	Goal 4: Operations The ConVal Regional School District will effectively research, plan, and implement best practices around facilities, personnel, leadership, and technology.(pp. 47-60).

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[10] Alliance for Excellent Education, <u>Digital Learning Readiness Report</u> (February 9, 2019), p. 51.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
7.b. District and school level plans for digital learning are justified and linked with consistent annual funding streams.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Budget approval process includes safeguards that requests are based on justifications of blended and digital learning goals.	Justification process of budget proposals is further enhanced (replacement/new). Without it, budget requests may be difficult to justify internally.	Digital learning justification process is transparent and fully in place.	Goal 4: Operations Effectively research, plan, and implement best practices around facilities, personnel, leadership, and technology.(pp. 47-60)..
7.c. Funding is identified for digital learning programs in the district's annual maintenance and operation budgets. Non-recurring funding is allocated for short-term initiatives or pilots.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Develop plan to allocate budget resources in a transparent manner to ensure that funding is predictable and in place for all needed digital learning expenditures.	Implement plan which ensures that all digital learning expenditures conform to policies, implementation strategies, accountability metrics and timelines.	Review and revise plan which ensures that digital learning expenditures conform to implementation timelines, accountability, and progress metrics.	Goal 4: Operations Effectively research, plan, and implement best practices around facilities, personnel, leadership, and technology.(pp. 47-60).
7.d. Metrics and methodology are in place for monitoring the relationship between budget priorities and student learning goals.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Develop metrics that link student learning goals to funding. Leaders and staff clearly establish how expenditures are determined and approved.	Put reporting systems in place to indicate progress on the SAMR scale, student learning goals, and implementation timelines..	Analyze data from reporting systems to indicate progress on the student learning goals and implementation timelines revise and adjust goals as needed.	Goal 4: Operations Effectively research, plan, and implement best practices around facilities, personnel, leadership, and technology.(pp. 47-60).

8. Collaborative Leadership

The Future Ready framework is a systemic planning framework around the effective use of technology and digital learning to achieve the goal of "career and college readiness" for all students.

While the seven interdependent Gears provide a roadmap toward digital learning, success within a district is dependent on innovative leadership at all levels. First and foremost, leaders within a district must be empowered to think and act innovatively; they must believe in the district's shared, forward-thinking vision for deeper learning through effective uses of digital, 21st Century technologies. Critical to their success will be a culture of innovation that builds the capacity of students, teachers, administrators, parents, and community to work collaboratively toward that preferred future.

The policy foundation that results must be coherent with that vision. Unleashed in a culture of vision and empowerment, leaders will have the flexibility and adaptability they require to prepare their students to thrive in the 21st Century.[11]

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
8.a. The district has involved the community in establishing a shared, forward-thinking vision for personalized, digital learning.	1 = Investigating ✓ **2 = Envisioning** 3 = Planning 4 = In place	Continue collaborative work towards a blended learning environment and explore how to involve additional stakeholders (students, parents, community members),	Continue to expand and define the district's shared, forward-thinking vision for deeper learning through effective uses of digital, 21st Century technologies; include additional stakeholders (parents) in the work..	Implement revised vision and evaluate its effectiveness while continuously expanding the base of contributing stakeholders (community members) in working towards blended, personalized learning goals.	Focus Area 2.6 The School District will engage the community in determining and assessing District goals (p.40).

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[11] Alliance for Excellent Education, <u>Digital Learning Readiness Report</u> (February 9, 2019), p. 57.

Indicator	2018-2019 Current Status	2019-2020 Action Steps	2020-2021 Action Steps	2021-2022 Action Steps	Alignment to Strategic Plan
8.b. The district and schools have established a culture where leaders are informed, collaborative, and empowered to innovate.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Explore what factors can regularly and systematically contribute to a district-wide culture of innovation in teaching and learning, develop innovation plan.	Implement the innovation plan that empowers leaders at the district and school levels with opportunities for formal and informal leadership in innovation.	Monitor progress of innovation and collaboration towards blended and personalized learning goals.	Focus Area 4.9 The School District will create a process to develop and provide internal leadership opportunities as appropriate (p. 54).
8.c. The district leadership team has established high expectations for transformation at all levels.	1 = Investigating 2 = Envisioning ✓ **3 = Planning** 4 = In place	Define expectations for needed technical changes, behavior changes, and adaptive changes in transitioning to the established vision of technology-enabled learning.	Develop metrics to measure the changes needed in transitioning to the vision of technology-enabled learning (student-centered, personalized, equitable and inclusive).	Collect and analyze data, define areas of strength and challenges, and provide additional supports for the areas in need of improvement; revise goals and timelines as needed.	Focus Area 4.7 Targeted professional development master plan... supports each staff member's attainment of articulated District standards for exemplary performance (pp. 52-53).
8.d. District leaders have coherent policies, plans, and budgets for achieving the vision.	✓ **1 = Investigating** 2 = Envisioning 3 = Planning 4 = In place	Align and revise policies, plans, and budgets to address practices of students and professional staff in blended learning environments.	Align and revise policies, plans, and budgets to address practices of students and professional staff in blended learning environments.	Align and revise policies, plans, and budgets to address practices of students and professional staff in blended learning environments.	Goal 4: Operations Research, plan, and implement best practices around facilities, personnel, leadership, and technology.(pp. 47-60).

References

Contoocook Valley Regional School District. (2017). *Mission, vision & core beliefs*. Retrieved from http://convalsd.net/superintendents-office/mission-statement/

Rickabaugh, J. (2016). Tapping the power of personalized learning: A roadmap for school leaders. Alexandria, Virginia: ASCD.

Wolf, M. A. (2010, November). Innovate to Educate: System [Re]Design for Personalized Learning; A Report from the 2010 Symposium. In collaboration with ASCD and the Council of Chief State School Officers. Washington, DC. Retrieved from http://www.ccsso.org/Documents/2010%20Symposium%20on%20Personalized%20Learning.pdf

Appendix A. Supplemental Materials and References

Blended Learning with 1:1 Chromebooks

Blended Learning Parent and Student Handbook (2018-2019)

BrightBytes Clarity Survey of the ConVal School District

Technology and Learning Fall 2018 Data Review (12/11/2018)

ConVal School Board Policies

GBEF: Acceptable Use Policy Staff (adopted 9/19/2017)

IJ: Instructional Materials Adoption (adopted 11/17/2015)

JICL: Internet Safety and Responsible Use for Students (adopted 5/15/2018)

ConVal School District Strategic Plan

Strategic Plan 2021 (January 2016)

Anywhere/Anytime Learning Powered By One-To-One Computing

Future Ready Survey Results

Executive Summary (February 2019)

Full Report (February 2019)

HB 1612 / RSA 189:66 Student and Teacher Information Protection and Privacy

HB 1612 An Act Relative To Data Security in Schools

RSA 189:66 Student and Teacher Information Protection and Privacy

New Hampshire Department of Education Minimum Standards for Privacy and Security of Students and Employee Data (Draft)

International Society for Technology in Education

ISTE Standards for Administrators

ISTE Standards for Educators

ISTE Standards for Students

New Hampshire Department of Education

Technology Planning Toolkit

U.S. Department of Education: Office of Educational Technology

National Education Technology Plan 2017

Appendix B. Quarterly Reviews

Quarterly reviews will be co-facilitated by the district's Assistant Superintendent and Systems Administrator.

Summer Review

- The Blended Learning Leadership Team meets to review goals outlined in the Technology Plan for the coming school year.
- For each goal, the Blended Learning Leadership Team details specific action steps that need to be taken in order to meet the goal.
  - For each action step identified, the Blended Learning Leadership Team identifies (a) who will be responsible for implementing the action step, (b) the timeline for completing the action step, and (c) measures/indicators of success for completing the action step.
- Additionally, each member of the Blended Learning Leadership Team will be assigned a goal (or goals) that they will be responsible for overseeing and managing.

Fall and Winter Reviews

- Each member of the Blended Learning Leadership Team shares with the larger group action steps accomplished to date related to the goal (or goals) that they have been assigned to oversee and manage.
  - Included in the report provided by each member will be (a) any challenges encountered, (b) any additional support needed, and (c) any recommendations for revising the plan developed to meet the goal (or goals) for which they are overseeing and managing.

Spring Review

- Each member of the Blended Learning Leadership Team shares their final report of the year for each goal they were assigned to oversee and manage.
  - Included in the report provided by each member will be any recommendations for revising the Technology Plan--e.g., adding, deleting, and/or revising goals included in the Technology Plan.

- Prepare a report/presentation for the School Board, detailing the work completed during school year and any recommendations for revising the Technology Plan.

- Schedule presentation to the School Board.

Draft Template to Support Planning and Quarterly Reviews

GOAL:

ACTION STEP	RESPONSIBLE PERSON(S)	TIMELINE	RESOURCES/SUPPORT NEEDED	MEASURE/INDICATOROF SUCCESS	CURRENT STATUS (Quarterly Review Notes)