Future Ready Schools—NJ Collective Impact Success Story

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Abstract

This paper comments on the development of Future Ready Schools—New Jersey a state-sponsored, voluntary, school-level program and its shift to digital schools. Through collective impact and the NSF collaboration framework, the program engaged hundreds of educational stakeholders, to develop a comprehensive system around educational technology and future readiness towards personalized learning for all students in the state. James Lipuma as principal investigator of this program utilized Interdisciplinary Participatory Strategic Planning to build the network and community of practice necessary to create the elements of the certification program. This paper presents the resulting certification program indicator rubrics built upon the National Future Ready Framework. The resulting system includes commitments from “district and school” leaders, collaborative teams charged with gathering and assessing evidence, and peer-reviewed by experts in three themes: Leadership, Education/Classroom Practice, and Technology Support and Services. The indicators are both best practices and rubrics for self-assessment and planning by superintendents, technology coordinators, and educators. The common elements identified across all this work were a clear shared vision with details in planning documents, a collection of indicators that outlined the goals and metrics, as well as a commitment to working collaboratively to ensure that the voice of stakeholders was heard as the work moved forward. Finally, the article presents the move to digital schools in the state of New Jersey and a commentary on the key outcomes that can allow any school administrator to benefit from the materials produced.

Key Words

future readiness, digital schools, collaboration, interdisciplinary, strategic planning, educational technology, educational leadership
Introduction

The state of New Jersey Department of Education (NJDOE, 2020) identified the need to improve the application of educational technology to prepare for the future of education. This included technology infrastructure, educational training, and support for the effective use of technology in all aspects of K-12 education in the state. In response to “The Partnership for Assessment of Readiness for College and Careers (PARCC)” (NJDOE, 2014).

In preparation for the PARCC exams, the NJDOE increased access to the internet and devices in schools as part of the preparation for testing as well as training related to the emerging use of technology-mediated instruction that was growing in all aspects of educational practices.

As a home-rule state, New Jersey has 584 operating districts not including charter/renaissance schools (2018-2019) according to the “New Jersey Public Schools Fact Sheet” (NJDOE, 2021) serving nearly 1.5 million students in grades Pre-K to 12. Rather than mandate changes or provide professional development on specific areas as a means to assist “adoption of practice,” NJDOE identified the national Future Ready Schools Framework (AEE, 2021) as a starting point to create a comprehensive picture.

Future Ready Schools is a result of "ConnectED” (The White House, 2013) announced by President Barack Obama in 2013. The program was designed to enrich K-12 education for every student in America by empowering teachers with the best digital technology, and the training to make the most of technological resources through individualized learning and “rich, digital content” (Maskevich, 2017).

The NJDOE sought to create a voluntary certification program that was based on the national Future-ready framework. This certification program was modeled after the successful Sustainable-Jersey for Schools (SJS) programs (SJS, 2021). The goal was to assist schools to “recognize best practices” (Maskevich, 2017) and pockets of excellence that can be expanded and shared to allow the entire school to be moving in the same positive direction.

The NJDOE formed a partnership with the New Jersey School Boards Associations (NJSBA) and New Jersey Institute of Technology (NJIT) and provided the initial seed funding for the development and piloting of FRS-NJ with additional funding from “Juniper Foundation” (Juniper, 2021).

This paper will begin with a background to the Future Ready Schools New Jersey program (FRS-NJ) along with the pilot that is the subject of the commentary. Next, the paper describes the themes and indicators of digital schools that were produced by the interdisciplinary working groups.

Then it explains the benefits of that work for school administrators with an extended discussion of stakeholder engagement in the co-design of the indicators for digital learning. Finally, the article presents the move to digital schools in the state of New Jersey and a commentary on the key outcomes.

Background

The author, James Lipuma, was given the grant to organize and build the FRS-NJ program and
coordinate the team of partners involved in the process. The work needed to recruit and build a community of practice to attain the goal of the school-level program. The members of the community of educational professionals led by district superintendents would be the ones to identify and clarify the elements of future readiness appropriate for the state in conjunction with the many stakeholders engaged with school systems including students, parents, teachers, media specialists, IT supervisors, school and district administrators, government officials, and corporate and private foundation representative.

As the organizer, NJIT served as the backbone organization in the collective impact efforts making Lipuma's team responsible for the management of the stakeholders and administrators and other governmental representatives recruited to complete the work. New Jersey groups including the Association of School Administrators (NJASA), Education Association (NJEA), Principal and Supervisors Association (NJPSA), Parent Teacher Association (NJPTA), Association of School Business Officials (NJASBO) and Association of School Librarians (NJASL) joined the coalition of educational organizations led by the NJDOE and NJSBA.

The design and development work led to an initial rollout in 2017. This was followed by 3-years of pilot testing and refinement by the over 500 stakeholders as part of the committees led by school administrators and other educational professionals. At this same time, the national FRs program was developing additional tools and materials for school leaders to be used across America. The work in NJ promoted the development of a more robust national district leader program.

“FRS District Leaders also collaborate with the community they serve and maintain a laser-like focus on long-term financial, pedagogical, and political sustainability. Ultimately, FRS District Leaders systematically plan and work to enact policies that ensure instructional practices maximize student learning outcomes” (FRS, 2021).

By the end of the 3-year pilot program, FRS-NJ had been shown to be an effective program that had wide interest. Nearly 500 schools in 150 districts had participated in some way in the programs with over 400 earning some type of certification at the varying levels. At that time, NJ faced the shift to online schooling that accompanied the spread of the coronavirus. Since the pilot had been completed, a more permanent structure was needed that did not overlap with the national framework or infringe on their intellectual property. To that end, the indicators developed by FRS-NJ were adapted to work with the existing SJS program.

“A transition committee led by school superintendents and educators experienced in both FRS-NJ and Sustainable Jersey helped create 12 new Sustainable Jersey Digital Schools actions … To assist schools familiar with the FRS-NJ indicators, a crosswalk between the new actions and the former FRS-NJ Indicators is available” (Sustainable Jersey, 2021).

This transition allowed the program to continue to be funded under the auspices of the sustainable Jersey program. SJS was originally established by a grant from the NJSBA as a municipal program and worked with the same
groups as FRS-NJ. In this way, the work of the program could continue and even reach more people with their actions. Moreover, this transition served as a case for other districts who may want to use the core principles of future readiness but adjust and integrate them into local or regional programs that already exist.

**FRS-NJ Pilot Project**

Lipuma was funded to manage the design and development pilot for the FRS-NJ project. The major obstacle was to transform the diverse collection of nearly 200 indicators that existed in the national framework into ones that made sense at the school level in NJ. The national FRS framework was built upon research-based best practices and provided a collection of areas for superintendents to consider when planning with their executive teams. The framework aimed to help districts prepare for personalized student learning through areas of study termed gears. The NJDOE sought to attain technology readiness in all school districts by providing them with the necessary materials and support tailored to their local needs.

By reviewing materials and surveying educators regarding their opinions related to digital readiness, Lipuma worked with the partners on the leadership team to create a clear vision and mission that could lead to a practical system for the NJ program. The program would promote all public education to be ready for the future needs of schools concerning technology and online-personalized learning. It was based on three simple questions as the impetus for schools to understand their own culture and community as well as engage their stakeholders at all levels:

1. Where are we now?
2. Where do we want to go?
3. How can we plan a path and gather the needed resources (material, human, social, political, etc.) to get there?

An existing high-level framework and a set of guiding questions would not be enough to produce a pilot and recruit superintendents, mayors, educators, and other stakeholders to buy into it. Recruiting influencers to participate would allow us to invite the vital stakeholders to the table and convince them to engage in the collaborative process to co-design the system.

This participation was vital since each community would need to invest the time and effort to conduct the self-study, prepare the evidence and be open to the reviews based on the indicators our committees developed. By gathering the support of all the educational associations and having a clear plan led by NJIT who was not pushing any agenda, the group came together to do the work of collaboratively designing the program and improving and optimizing it over time.

**The FRS-NJ program**

The program developed three phases for engagement: district commitment, school commitment, and school certification. A key aspect of the success of the program was tied to the different levels of collaboration the program sought to foster within the school and district. This is described by the three phases and serves as a good example of steps that can be used for any school engagement initiative. These simple commitments led to a stronger sense of community and a clearer understanding of different parts of the process for all involved.

Moreover, by connecting various levels of the school’s stakeholders and clarifying plans and processes, everyone reported a stronger commitment and sense of purpose as
well as satisfaction with the results of the process. Those schools that simply assigned the process to a single person to fill out did not attain certification.

The District Commitment Phase ensures that school districts are dedicated to supporting their school's efforts and that these efforts are collaborative. Once a district is committed, schools in the district can declare their participation and apply for certification.

The district’s Future Ready team should be inclusive and collaborative, and consist of members including at least one board member, the superintendent, the technology director or other IT personnel, a librarian/media specialist, a student representative, and other dedicated leaders and educators.

The district then conducts a self-assessment to establish an understanding of where they stand concerning the Future Ready Framework and submits a pre-application to FRS-NJ to declare their commitment. District commitment can be declared at any time on a rolling basis.

The School Participation Phase features the establishment of the school-level Future Ready team and the official declaration of a school's participation in the certification program. The School Certification Phase enables individual schools to apply for certification by taking actions that lead to success through the Future Ready Schools - New Jersey Indicators of Future Readiness (AEE, 2021). Each indicator is designed by a task force of NJ educators, leaders, and stakeholders to provide a framework for schools' efforts to best prepare their students for success in college, career, and citizenship, connects educators with potential resources to do so, and provides the recognition due for success through certification.

There were two unexpected and significant results for the pilot program related to the description of the phases. The first was related to the level of involvement and sharing that came out of the teams. This was even more evident as districts reported the increased effectiveness and appreciation by educators related to shared planning time and greater collaboration and cooperation tied to the process.

Another significant finding related to the higher level of involvement in community activities by stakeholders as a result of the inclusion of more voices in the process. Improved communication and open discussions were reported by many of the teams as part of other processes.

After three years of the piloting of the system, the participation grew to encompass a significant number of districts and schools across the state. In addition, other aligned sets of indicators were created by affiliate groups like the Media specialists, Pre-service teacher preparation, and educational technology professionals. Figure 1 below shows the numbers of relevant participation for the three years of the pilot program.
Figure 1

Numbers of Relevant Participation Per Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Committed Districts</th>
<th>Participating Schools</th>
<th>Volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>32</td>
<td>68</td>
<td>100</td>
</tr>
<tr>
<td>2018</td>
<td>94</td>
<td>265</td>
<td>250</td>
</tr>
<tr>
<td>2019</td>
<td>137</td>
<td>443</td>
<td>500</td>
</tr>
</tbody>
</table>

Themes and Indicators

To help organize the work of the task forces and group similar items together, the program created three areas called themes.

The Leadership theme embodied those aspects that involved planning, budgeting, and oversight. The development was leaded and informed by superintendents, board of education members, members of the state leadership organizations, and other stakeholders.

The Education and Classroom Practice theme embodied items related to teacher professional development, student instruction, use of space and time, and other related areas connected to the practice of education. Finally, the Technology Support and Services theme embodied the educational technology and infrastructure needed to accomplish the goals of the program along with the necessary training and certifications connected to the integral role technology plays in the modern schoolroom.

Perhaps the most important outcome of the project was the collection of priority indicators. Through the three years of development during the pilots, these were given levels of priority and clear descriptions along with the explanations and examples of evidence of them in practice and aligned with best practices in the creation of “value propositions” (Osterwalder et al., 2014; Porter & Kramer, 2011; Wenger et al., 2011).

These indicators below were broken out among the three themes as described above:
Leadership Theme Indicators

- A Culture of Innovation, Collaboration, and Empowerment
- Board-Approved Future Ready Plan
- District Virtual Identity
- Sustaining a Digital Learning Environment
- Communication Plan, Guidelines, Outreach, and Reflection
- Established Budgeting Process for Digital Learning
- Measuring Success Using Data
- Community Joint Activity Planning
- Review and Revision
- Systems Information Diagram and/or Table
- A Shared Vision for Digital Learning & Citizenship
- Culture of Capacity Building
- Professional Learning to Support Integrated Instruction
- Connected Leaders
- Local and Global Outreach
- Student Access to Technology Beyond the School Day

Education and Classroom Practice Theme Indicators

- Coaching and Mentoring
- Authentic Learning
- Digital Assessment
- Digital Citizenship
- Digital Learning Tools and Content
- Student-Driven, Self-Directed Learning
- Communicating and Celebrating 21st Century Learning
- Computer Science
- Personal Learning Network
- Professional Learning Plan
- Flexible Instruction Process
- Student Choice
- Extended Learning Outside the School Day
- Blended Learning
- Ongoing Reflection and Refinement
- Student Personalized Learning Plans
Technology Support and Services Theme Indicators

- Access Point Signal Saturation
- Data Governance
- Data Security and Privacy
- Intranet/Internet Network Availability
- Operational Best Practices
- Adequate Support and Services for Digital Learning
- Data-Informed Decision-Making Process
- Inventory Management Solution
- Process for Adequate and Responsive Technical Support
- Proper Decommissi
- Servers
- Staff Awareness
- Lifespan and Refresh Cycle Planning
- Process for Effectively and Efficiently Vetting New Infrastructure Technology
- Process for Effectively and Efficiently Vetting New Instructional Technology
- Equitable Access

These priority indicators serve as both a guide for what the research shows as best practices as well as a starting point for each district to customize their work to their community needs. Several superintendents have reported the benefits of the indicator framework for initiating and focusing discussions during planning. Beyond these level one indicators, the program also had items as level two and three priorities to help distinguish their significance.

In addition, having the indicators vetted by NJSBA and NJDOE allowed the school and district administrators and the members of their team to have better support when asking for improvements or developing technology plans. Additionally, districts reported that the common planning time for education led to positive attitudes and more effective curricular implementation of the district lanes as the digital school teams had a voice in the direction of strategic planning and an understanding of the many related issues that were being faced across all levels.

Benefits for Superintendents
There are several key benefits for superintendents and other administrators in connecting and engaging in the discussions around the use of technology to improve education in their community.

Overall, the FRS-NJ program provided a framework for reflection and analysis as well as a means of being recognized for the hard work being done. In addition, it creates a community of practice where administrators could learn from one another while assisting each other to improve their districts. Beyond
just clarifying the framework for tackling technology issues, the themes showed how the various components were connected and interrelated. Moreover, these aspects of effective education facilitated with technology tie back to the need for good planning at all levels with participation from a wide range of stakeholders. The themes help demonstrate that technology is only part of an integrated collaborative team solution.

Finally, the community of practice created by the task forces and the ongoing recognition program created visibility for districts that led to interest and support by their local mayors and school boards as they saw the value of the work being done and improvement being made. Together they could create a plan and gather needed resources to move to a state of future readiness as part of their digital schools.

The early adopters of the program saw the value of the “Collective Impact Framework” used to engage partners and stakeholders while ensuring the vision and mission of the program remained true to its original charge (Easterling, 2013; Kania & Kramer, 2011; Weaver & Cabaj, 2016).

Collective impact resources can assist all superintendents who wish to lead a collection of diverse stakeholders to form a wide range of sectors who wish to come together to work on an effort like this. This work relies on community participation that solicits input from stakeholders to develop a shared agenda, mutually reinforcing actions, shared metrics, and continuous communication to serve as a “backbone organization” (DuBow et al., 2018) coordinating and promoting shared actions and aligned efforts (Prange et al., 2016; Wolff, 2016).

Two significant results for district administrators relate to the improvements in both the national and local programs during and after Covid. The national framework for FRS is continually developing resources for district leaders to help implement the framework. Meanwhile, the state programs are also adding and refining their program as well.

For example, a fourth theme is being developed related to student voice and school climate and culture. Whether you want to utilize the national framework or customize it to your local circumstances the work done provides a set of milestones and resources for superintendents and their teams.

These resources can assist any state or local program to have a template for identifying the key actions desired and a means for translating the national framework and resources into one that works on their regional and local levels.

Finally, the key idea is to have a system that meets the needs of each school so that the climate and culture can grow. Future readiness is not an end to be sought but a process of improvement towards a digital school that utilized technology to differentiate instruction and support effective education for all students.

In the end, a major factor in the success of FRS-NJ and its transition to digital schools was a clear framework for planning and collaboration (Cummings & Worley, 2007). Since the process required the districts and schools to form teams that brought stakeholders from many disciplines and backgrounds together, an effective framework for conducting the process, and generating a clear plan was essential for the success of
districts as they moved forward with the process of developing their future-ready school.

**Benefits of interdisciplinary participatory planning**

Many district administration teams were essential to our success by providing insights, championing the value of the program, and helping us avoid problems or potential conflicts and obstacles.

One example of this is the district administrative team from Morris Plains school system who was an early adopter and speaker at many events. They shared their process and helped other districts by answering questions and providing support.

“From the start of the Future Ready initiative to now, the program has really strengthened our organization, increased awareness within our community and bridged a network of resources that we can tap into that will only benefit us even further” (Jenkins, 2018).

Establishing and building a partnership based on collaboration and “mutual benefit” was facilitated with three interconnected steps: connection, engagement, and collaboration (Lipuma, 2019). At the largest scale, the connection phase starts by bringing awareness of our program and leads to interactions either actively or passively with the community.

As interaction increases, awareness moves to recognition and eventually to a connection. Building on the connection phase, the next stage is engagement, which begins with initiating a dialog. Then you establish a rapport to identify “shared interest” and common ground.

Finally, they will determine an alignment of the “Who, What and How” (Lipuma & Leon, 2019) to develop a match for their level of engagement. Depending on the degree of engagement you can have simple partnerships and common events or move towards true collaboration.

The first step to effective collaboration is for the actors to clarify their roles both as individuals and leaders of an organization, identifying common action, purpose, and vision. As your degree of interaction increases the type and level of collaborative work becomes clear. Whether you are acting as an individual or the leader of an organization your mutually reinforcing activities yielded by your engagement with your collaborative partners can result in a variety of situations. Public-private partnerships, grant collaborations, shared services, training, and many other types of collaboration can be the result of this deeper extension of our engagement facilitating the discussion of complex issues and systems (Kenia & Kramer, 2013) as shown in Figure 1.
Commentary on Key Outcomes
The system was co-created over three years with volunteers from all stakeholders to establish a certification program that provided both guidance and feedback during the process as well as recognition across the state based upon submitted evidence of attainment. It was clearly stated that the program was not meant to be comprehensive nor complete in the first year. Over time, the indicators and procedures were refined while the number of participating schools and districts grew.

The effective collaboration was only possible through the commitment and support of educational organizations and over 1,000 volunteers from all sectors of educational involvement. Essential to this was the commitments from a variety of state education organizations:

The development of the system took three iterations. Through these three rounds of the certification program, great progress was made, and the work was only possible through the collaboration with educational organizations listed above, the schools, and most of all the volunteers across the state who made the work possible. As a “totally voluntary” program, the chairs and co-chairs of our committees gave of their time and expertise to make the metrics of success clear and relevant to those who use them to prepare their submissions. Moreover, it is the shared vision and collective impact of those involved which make the program not just successful but an exemplar and template for others.

Conclusion
In the current educational environment across America, the prevalence of educational technology has taken center stage. However, each state has different ways of managing education and implementing reform. If each superintendent can work collaboratively with his or her staff and stakeholders, then
education can be delivered more effectively utilizing technology to enhance all aspects of the educational system.

Each situation is distinct and so the exact path to successful student learning differs in every location. Nonetheless, the common lessons of collective impact and IPSP were helpful for the wide range of stakeholders to come together, design, and develop the needed resources to develop NJ’s program.

Whether the program elements are used as a starting point or adopted for use elsewhere, the work to design and develop this by creating a coalition of interested parties was meaningful. Rather than see the state efforts as a push for compliance or the certification as a prescription of a single outcome sought, gathering the district leaders, and documenting their work with the wide range of stakeholders was an essential step to making the program acceptable and successful.

In the end, 150 districts and nearly 500 schools consulted the indicators and worked to gain certification. Moreover, those districts that were early adopters committed to sharing their work and helping others delineate their own desired outcomes from the process.

Whether drawing on the national framework to inform your decisions or examining the essential questions and priority indicators of NJ’s program, each superintendent will lead the planning process.

Using tools to engage representatives from various disciplines and find collaborators and partners to providing input will make the overall process more successful and lead to a state of continual improvement that can respond to the new challenges that might be posted as we progress into the future. By utilizing these frameworks any district can move towards digital schooling. The common elements identified across all this work were a clear shared vision with details in planning documents, a collection of indicators that outlined the goals and metrics, as well as a commitment to working collaboratively to ensure that the voice of stakeholders was heard as the work moved forward.

Author Biographies

Legally blind since nine, James Lipuma appreciates the need for positive change and works to promote broader participation for women and under-represented minorities in science technology, engineering and mathematics as part of STEMforsuccess.org and other STEM literacy projects he leads. Most recently, he completed a collaborative co-design project with ten New Jersey districts and 100 educators and administrators among other partners to design tools for teachers and other digital supports related to STEM to assist with online instruction tied to the ongoing issues of Covid-19. E-mail: lipuma@njit.edu

Cristo Leon’s experiences have included over 13 years in directive positions. They include managing logistics, facilitating organizational development training, designing business innovation plans and implementing digital change programs for organizations. E-mail: leonc@njit.edu
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