Beverly Hills Unified School District

Technology Review Report

March 2018

GENERATION READY
Partnering for School Success

Table of Contents

Beverly Hills Unified School District Technology Review

Background

Generation Ready was pleased to have the opportunity to support the Beverly Hills Unified School District as they reflect on the implementation of their District-wide Technology Initiative: Reimaging Learning.

With the exponential rate of technology development, it is almost impossible to comprehend how different our students' lives will be in the next two decades. The world our students live in is technology driven, and that our students are helping generate this drive. However, it is widely acknowledged in education that we need to better prepare our students for the future, for jobs that in most cases don't even exist yet. It is also generally agreed that computer technology will be increasingly pervasive, making computational thinking skills critical for the future success of all of our students.

This report is designed to serve several purposes for Beverly Hills Unified School District: At its most basic level, the data provides a record of the "current status" of instructional technology integration within the district. The findings and recommendations are intended to be used along with the findings for the full Academic Audit. Together these reports offer insight into a more comprehensive set of issues than simply the use of technology, and keeps pace with current educational practice and research around the use of technology within a student-centered educational environment.

Each school received an individual report on their school. This report collates the findings from all five schools.

Introduction

Context

Beverly Hills Schools District is committed to having all schools "use leading-edge technology, discovery and innovation to deliver the advanced education students need to flourish in the rapidly changing global economy". This commitment to preparing students for success in a globally competitive world resulted in the development of the Technology Plan: Reimaging Learning. The plan outlines a robust integration of instructional technology into schools and classrooms. 2018 is the second year of the implementation.

The plan acknowledges successful implementation requires the management of many moving parts (the design, community information and engagement, equitable, teacher professional learning, assessment development, infrastructure provision) – getting any one of these wrong risks losing teacher support and commitment.

The Generation Ready Technology Review undertaken for the Beverly Hills Unified School District was part of the District Academic Audit. The site visits took place from Monday January 29 to Thursday February 1, 2018. Two of the eight members of the Generation Ready Audit team were technology experts.

The technology review aimed to provide baseline data—a current-status snapshot. Data provided by the District, together with information gathered from each of the five schools, was used to build an overall picture of the District. This helped answer the overarching evaluation question for the Technology review:

How effectively does this District promote the integration of technology into classroom practices?

To ensure consistency across all schools in the District, Generation Ready used the dimensions used by the district as the framework for the audit. The following dimensions were used to frame the structure and focus of the Beverly Hills Unified School District review of technology:

– Collaborative Leadership, Community, & Culture.

– Learning, Curriculum, & Assessment.

– Teaching.

– Infrastructure & The Digital Ecosystem.

The dimensions of Funding & Resources and Policies & Procedures were outside the scope of the review. Generation Ready's Technology Review is designed to make it easier for the school to identify:

– What they are doing well.

– Where they need to develop and review.

– Implications for future action.

The conclusions were informed by evidence gathered through the review. Throughout the process, the Leadership Team and identified constituents were engaged in conversations to ensure that the review captured the most accurate picture of the school's practices. The review aimed to build on school strengths and self-review capacity and ensure that Generation Ready's review findings are useful and applied.

Information Sources

Information for this report was gathered from multiple sources between January 29 and February 1, 2018. Data from the District (including BrightBytes Survey data) was used alongside both qualitative and quantitative data gathered during the school visits. Students, teachers, and administrators were interviewed to assure multiple perspectives.

Data was gathered through:

1. Classroom Observations

    As part of the Academic Audit 125 classrooms were visited over the five days. The teachers observed were representative of each school's teachers with respect to grade level, teaching experience, and years at the school.   An additional 20 teachers were observed by the technology consultants. Each class was observed for at least twenty minutes to gain a clear impression of the nature of the instruction and how technology was integrated.   The **S**ubstitution **A**ugmentation **M**odification **R**edefinition Model[1] (SAMR) was used to identify where teachers were on the continuum in their integration of technology with teaching and learning. The four key criteria were:

    1. **S**ubstitution: Technology replaces a low-tech tool without functional improvement.

    2. **A**ugmentation: Technology replaces a low-tech tool for increased effectiveness and/or efficiency.

    3. **M**odification: Technology allows for a significantly altered learning experience while maintaining traditional learning objectives.

    4. **R**edefinition: Technology allows for the creation of tasks and learning objectives not possible without technology.

2. In addition to the Interviews carried out as part of the Academic Audit additional technology focused interviews were held with:

    – Principals and Assistant Principals.

    – TOSAs - Teachers on Special Assignment in Technology.

    – IT Administrators.

3. Focus Groups

    Time was scheduled for the Generation Team to meet with small focus groups for 30-45 minutes. In each of the groups there were questions that directed addressed the use of technology. The participants in the each of the following groups were selected by the principal: Parents, Teachers, Students, Technology Team or IT Specialists.

4. Technology Trackers

    The use of technology during each observation was tracked.   During the observations, the use of technology was recorded and coded using the SAMR Framework.

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[1] Ruben Puentedura in 2006 in collaboration with the Maine Department of Education

Dimension 1

Collaborative Leadership, Community and Culture

Findings

- The District's vision for instructional technology is clearly articulated and shared with all members of the school community. The District goals are reflected in many school practices and the process of implementation is supported by the District.

- There is universal agreement from District community members (Administration, teachers, parents and students) about the value of technology in schools. District-wide systems support the implementation of this shared vision.

- While there was widespread agreement for the need to integrate technology into teaching and learning there was a range of understanding about the potential of technology to positively transform instructional practice. This transformative role was evident in the CTE Program at the high school.

- The Technology Teachers on Special Assignment (TOSAs) have taken a proactive approach to helping teachers understand their role and the potential benefits of using technology in the classroom. In addition, their experience as classroom teachers allow them to understand teachers' needs around tech integration.

- The principals were all strongly supportive of the District's plan for technology.

- Some schools felt they were now making significant progress in encouraging technology use within the teacher community, a key win given that many teachers initially had some level of anxiety relating to technology usage.

- Their strengths of Technology TOSAs vary across the district. Regular bi-weekly meetings provide a platform for building a collaborative community amongst the TOSAs and district technology leadership.

- Much of the communication within the District community is done electronically.

Dimension 2

Learning, Curriculum and Assessment

Under this dimension the reviewers were looking for:

1. The integration of technology into the school and classroom.
   The integration of technology into teaching and learning is more than simply the provision of devices. Technology integration is the use of technology resources in daily classroom practices, and in the management of a school. Successful technology integration is achieved when the use of technology is:

   a. Routine and transparent.

   b. Accessible and readily available for the task at hand.

   c. Supporting the curricular goals, and helping the students to effectively reach their goals.

   When technology integration is at its best, the student and teacher's use of technology is second nature.

2. How technology is being used as measured by the SAMR Framework.
   The goal is for teachers in the classroom to provide opportunities for conceptual, interactive, and authentic learning experiences. This report relies on the SAMR framework as a lens for interpreting the impact of technology integration.
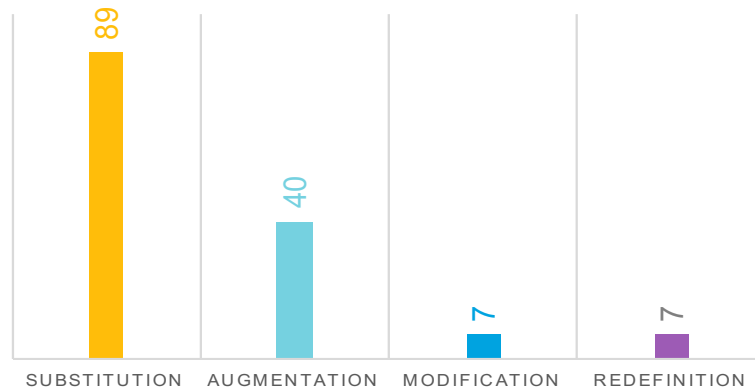
   a. **Substitution:** Technology replaces a low-tech tool without functional improvement.

   b. **Augmentation:** Technology replaces a low-tech tool for increased effectiveness and/or efficiency.

   c. **Modification:** Technology allows for a significantly altered learning experience while maintaining traditional learning objectives.

   d. **Redefinition:** Technology allows for the creation of tasks and learning objectives not possible without technology.

It is vital students have the skills required to be effective problem solvers, enabling them function at a higher level and process complex information. Skills such as collaboration and effective communication have become essential for students to enable them to take on jobs that will be created in the future.
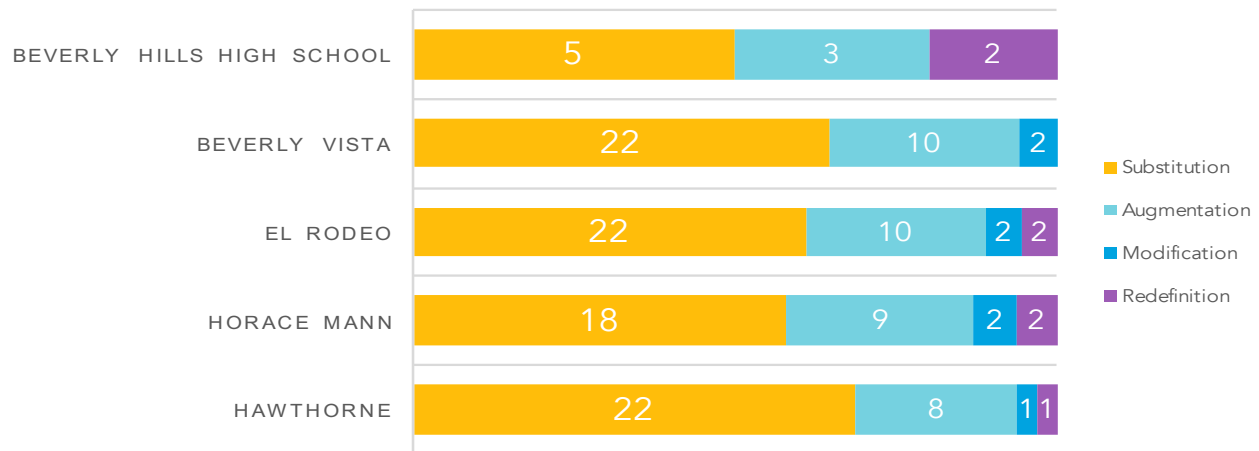
Findings

- Technology was used in almost all of the classrooms visited. The nature of the use varied from simply substituting printed texts with digital texts on the screen, to teachers using technology for conceptual, interactive, and authentic learning experiences.

- The following graph shows the distribution of teachers observed across the SAMR Framework at the District level and for individual schools.

TECHNOLOGY INSTRUCTIONAL CATEGORIES OBSERVED IN DISTRICT

| SUBSTITUTION | AUGMENTATION | MODIFICATION | REDEFINITION |
| 89 | 40 | 7 | 7 |

OBSERVED USE OF TECHNOLOGY IN SCHOOLS

	Substitution	Augmentation	Modification	Redefinition
BEVERLY HILLS HIGH SCHOOL	5	3		2
BEVERLY VISTA	22	10	2	
EL RODEO	22	10	2	2
HORACE MANN	18	9	2	2
HAWTHORNE	22	8	1	1

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The following are examples of the type of technology interaction observed under each of the classifications

Substitution

– Teachers using interactive whiteboards or document cameras in the same way they would use a whiteboard.

– Students writing using word processor software.

– Independent reading on iPads, students passively watching videos, and teachers sharing their own work via document cameras.

Augmentation

– In place of worksheets, students responded to procedural math questions using a Google Slideshow.

– 1st grade students completing an iPad matching activity that provided instant feedback.

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- 5th grade students using collaborative notes to record and share observations about different regions of the 13 colonies.

Modification

- One teacher organized students to work in literacy circle teams. Each student was assigned a job. Students used collaborative documents to share their findings and give each other feedback.

- In an early elementary science class, students were presenting their science experiments. Several made use of technology in conducting their experiments, as well as in multimedia presentations to share their findings with the class.

- Students worked in pairs on an interactive spiral review.

Redefinition

- In an animation class in the academic track, students were using an animation program to turn their storyboards from drawings on paper to animated shorts complete with music, backgrounds,

- In a 6th grade science class, students were creating and presenting advertisements for a toy they had designed that was meant to help develop motor skills for individuals suffering from Cerebral Palsy.

- In a 3rd grade science class, students used an iPad app to design gliders.

- The CTE program at the high school has its own infrastructure, which is managed completely by students. The program runs a number of online broadcasts, including broadcasting school board meetings on YouTube. Students take on various roles from broadcaster to highly technical roles, such as audio and video editing and managing broadcast signals and web traffic.

Additional findings

- One school is taking a measured approach to promoting effective classroom integration, because of the level of discomfort and resistance of some teachers. While teachers have access to support, some teachers are not taking advantage of it. Time constraints are a potential contributor, but it is also unclear whether effective use of technology is being communicated as a priority outside of district initiatives.

- Teachers and administrators were utilizing technology, online grade book posting (as appropriate), and email and voicemail to improve two-way communication between home and school.

- The focus of technology classes is shifting to emphasize skills such as design, coding, and multimedia. The district has implemented a digital citizenship initiative this year.

Dimension 3

Teaching and Technology Skills.

Data on the classroom observations is discussed in detail in each school's Academic Audit. The depth, rigor, the task students were engaged in varied greatly from class to class. Teachers who were using whole class worksheets were using electronic worksheets. There were some examples of where teachers had created learning environments where students take ownership over the learning process to individually or socially construct knowledge from a wide range of resources and learning interactions. In practice, this shift involves the implementation of a project-based learning approach to mastery of higher order learning skills aligned with overarching curriculum. The majority of the teaching was whole class, teacher directed instruction.

Findings

- Technology skills varied among community members, but for the most part, technology skills do not appear to be a significant barrier to classroom integration. Most classrooms observed exhibited some evidence of technology use; community members seem accustomed to using digital tools for internal communications, as well as communication with parents.

- Members of the school community are proficient in general technology competencies, such as e-mail, keyboard skills, and digital citizenship**.**

- With the basic skillsets in place, the schools *are* well positioned to move along the technology adoption continuum with respect to in-classroom integration on both the teacher and student parts.

- Much communication within the community is done electronically, and most teachers appear comfortable with general technology usage.

- Some described the process of technology integration in the school as being in its first phase, focused on exposure to technology tools. It appears that this phase has been effective, as the norm of technology use has been established.

- The focus of technology classes is shifting to emphasize skills such as design, coding, and multimedia. The district has implemented a digital citizenship initiative this year.

- A common theme amongst new teachers was a lack of awareness of software solutions, platforms and applications, available to them for use in the classroom.

- Several school employees felt that Jupiter Grades was popular among faculty and used both for assigning work, keeping track of grades, and communicating with home about student performance.

Professional Learning

- Technology related professional development (PD)/training is provided, both formally at the District level and through the support of the TOSA. However, a common theme from discussions with school staff and teachers indicates that finding time for PD and classroom integration planning was difficult considering existing busy schedules.

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- The rotating Wednesday morning time is not seen as sufficient for the range of purposes it is meant to accommodate (personal-professional, team planning, PD, and faculty meetings).

- Some staff claimed the district-wide PDs around technology were not personalized enough to meet the needs of individual teachers. Others felt the district PDs provided ample options.

- There was a school-based professional learning plan in place in one school.

Dimension 4

Infrastructure.

The commitment to the implementation of the District's Technology Plan is impressive.

Findings

- Technology tools were observed in every classroom visited and all staff members have access to the technology resources that would support effective use in schools. At the High School are waiting to implement more comprehensive device rollout.

- Most agree that Wi-Fi connectivity has improved significantly over the past year. We did find some instances of connectivity issues, but overall, connectivity did not appear to be a significant barrier.

- The current email configuration, with both Google Apps and Outlook being used, causes some confusion and reduced efficiency for teachers and administrators.

Devices

- The District's 1:1 device availability program has provided the schools with sufficient physical devices given the school's student population. At the lower grades, there is one iPad per student and at upper elementary, there is one Laptop per student. In the middle grades, each teacher has a set of Laptops that stays in their classroom as students move from class to class.

- Current administrative guidelines restrict the mobility or personalization of devices (iPads and Laptops) across classrooms as well as off campus. In some cases, the in-classroom device distribution/collection process reduces the instructional time. Many middle grade students would like to be able to bring their own devices.

- While the high school does have a number of devices, they are currently waiting to implement a more comprehensive, 1:1 device roll-out.

Conclusion

Beverly Hills Unified School District has shown a commitment to taking full advantage of the opportunity to become a National leader in technology integration through changes to the infrastructure, practices and pedagogy. The range of initiatives for Technology Integration outlined in the Technology Plan will ensure all District schools are equipped with state-of-the-art infrastructure, teachers get the support and resources they need to be digitally fluent, and every student benefits from the advantages of digital technologies for learning.

The district has effectively provided access to technology and communicated the importance of technology within classrooms. The investment in the infrastructure by the District and community is impressive.

A robust infrastructure with access to connectivity and devices does not guarantee access to engaging educational experiences for students. The district is at the stage where thoughtful intervention and attention to the way technology is used for learning needs to be a priority if investment in the infrastructure is to impact student outcomes positively.

While there is widespread agreement with the District's vision and goals, what this means in terms of classroom practice is not so clearly understood. There were pockets of excellence in each school but many teachers need to move beyond "adapting" existing pedagogies and move to designing entirely new learning environments that are supportive of district goals and initiatives. It will naturally require considerable teacher professional development (see below). Ultimately, when teachers have been provided with the appropriate professional development, the district will need to establish clear expectations for teacher accountability around the effective use of technology for meeting student learning goals.

Recommendations

The implementation and adoption of education technology is no different than any large-scale change management process. Successful adoptions in technology are often grounded in three primary drivers along a continuum ... culture, drives process, drives structure. The District and Schools are supporting a budding and active culture on many levels with respect to technology. It is important to nurture the continued growth and evolution of this culture:

– Develop clear communities of practice for teachers within and across schools that act as a hub for setting vision, understanding research, and sharing practices. Leaders should establish cohesive communities of practice—in person and online—to create cycles for sharing the most recent research and effective practices in the use of educational technology.

– As a parallel to the communities of practice for teachers, the same evolution of the community TOSAs must focus two levels of communication across the TOSA program. Sharing the challenges and solutions experienced collectively by the team from a "technology clicks" perspective is a first milestone. Secondly, the TOSA community should evolve as the evangelists for messaging for these solutions and wins ... whether it be tool or application focused. The integration of school-based "super users" (teachers and students) into a TOSA/School community is another level along this continuum.

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- Support teachers in developing a school-wide belief about what constitutes effective instruction. This needs to be reflected in a consistent approach to technology integration into teaching and learning where teachers encourage student initiation of inquiry and contributions to the exploration of important content. In each school there are classrooms where the instruction is engaging, rigorous, and encourages higher order thinking and use of technology. These teachers and classrooms could be used to prove models of effective instruction for those who are struggling to see the possibilities.

- Set clear expectations at the District level for professional learning around using technology to support core curriculum and 21st century learning. Principals then need to build on district professional development and create professional learning plans for technology integration in their schools. There needs to be clearly stated goals for teachers and differentiated support to cater for the range of teachers' needs. Principals need to support the work of the TOSAs in leading their staff toward meeting these expectations. It is essential that staff understand that most professional learning around technology integration will be job-embedded. The district/schools needs to support this type of job- embedded professional learning through the provision of common planning time for teachers and the expectations that such time will be used for professional learning and reflection.

- Present technology as a solution to existing problems of practice could prove beneficial in encouraging late adopters to experiment with technology and in encouraging early adopters to move from Substitution to Augmentation, Modification, and/or Redefinition.

- Continue the move to 1-1 program to middle and high school students where more classroom time is focused and spent on inventory management e.g., distribution and collection of laptops each day or each period.

Appendices: School Technology Review Reports

Hawthprne Elementary School

Beverly Vista Elementary School

El Rodeo Elementary School

Horace Mann

Beverly Hills High School