Policy**Perspective**

The Current State of Digital Integration in Texas Public Schools

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Key Points

- Many Texas schools are taking advantage of digital learning options available to help struggling students graduate.

- The advancement of learning technologies in Texas remains hampered by lack of educator buy-in and comfort with use of those technologies.

- Texas should take steps to increase flexibility for which students are eligible to take online courses in Texas, as well as do away with needless budgetary mandates that limit a district's ability to implement learning technologies in their classrooms.

Introduction

Learning technologies are on the rise in Texas. Flexibility for providers of online courses improved during the 83rd Texas Legislature with the passage of House Bill 1926, which allows private and non-profit providers of digital content to participate in the Texas Virtual School Network without first partnering with an independent school district. The hope is that this will open the door for many more Texas students to participate in online course work. However, questions remain about how well, and to what degree, learning technologies have been implemented in Texas classrooms.

During the summer of 2013, the Texas Public Policy Foundation interviewed 27 school districts to gather information on the current state of technology integration in Texas classrooms (*see list on back page of this paper*). The positions of those interviewed varied from technology director to superintendent depending on the size and department design of each district. Through open-ended questions, technology personnel shared their experiences and insight of both the struggles and benefits of putting technology into the hands of teachers and students in today's classrooms.

Current State of Implementation of Learning Technologies in Texas

All districts interviewed had either a technology department in place or personnel tasked specifically with the administration of technology within the district. In the case where districts had less than 500 students, the technology director was also an educator or an administrator. In many larger districts, the technology departments were made up of a considerable amount of facilitators, network assistants, hardware specialists, and teacher integration assistants. These personnel focus solely on integrating technology successfully in classrooms and throughout their districts. Districts investing in these types of positions often had a higher rate of technology integration, freedom to budget their own needs, and offered more technology training for teachers inside the district rather than outsourcing to the Education Resource Centers or other avenues.

The surveyed districts universally acknowledge that technology is both an essential and powerful tool in the classroom. However, from district to district there is a wide range of current technology integration. Four school districts interviewed have chosen to implement a 1:1 ratio of personal computers to students in their secondary grades. Two of the 27 school districts have chosen to have a 1:2 or 1:1 ratio of personal devices, such as iPads and laptops, to students for kindergarten through 12th grade.

Most districts interviewed are not equipped to provide a large number of devices to their students. There are still campuses that have a weekly computer lab time offering approximately one hour of technology experience a week. There were anecdotes regarding classrooms in which personal computers acquired expressly to be tools used in support of the education process went almost completely unused, and commonly used Smart board technology literally stayed in the closet at all times.

Credit Recovery

One of the fastest growing sectors of learning technologies are online courses taken for graduation credit, including the popular credit

recovery programs. Such programs are geared toward helping students deemed "at risk not to graduate" successfully achieve a high school diploma. Out of the 27 districts interviewed, 63 percent are using online courses for credit recovery. Online courses provide three significant advantages to students, parents, and districts:

- They allow students to take courses at their own pace.

- They make it easier for students with an array of interests (i.e., sports and the fine arts) to maintain a full slate of extra-curricular activities while completing quality academic coursework at their own pace.

- Through credit recovery programs, online courses help struggling students achieve graduation. This, in turn, helps curb the dropout rate.[1]

Texas is a national leader in these types of online programs.[2] The success of these programs is testimony to the benefits of using technology in the schools.

### BYOD: Getting Around the Implementation Problem

Per the survey, one means by which districts are getting technology into the hands of their students is through the use of "BYOD" programs. "Bring Your Own Device" allows students to use personal devices in the classroom where there may be a limited number available. While programs of this nature can add technological challenges, they provide the opportunity to have more students engaged in learning with technology at a lower cost.

Facing the Hurdles

There are a number of challenges involved with integrating technology into the classroom. Over half of the districts interviewed stressed that their biggest hurdle is teacher buy-in. Our study showed 67 percent of districts implement a professional evaluation that expects teachers to integrate technology appropriately. However, technology directors stated that in most cases, school administrators were in charge of holding teachers accountable. If administrators do not establish a minimal level of teaching criteria for incorporating technology applications in the classroom, then there is no real way to tell if students are getting an appropriate level of experience. The Texas Education Agency mandates that teachers implement a minimum technol-

ogy education as stated in the Texas Essential Knowledge and Skills (TEKS).[3] Those interviewed stated that teachers are struggling to find the time to learn how to implement efficiently and often have a lack of experience using the technology that districts have purchased. If teachers have devices in a back closet and there is no oversight from administration or technology staff, then there is no way to determine whether students are receiving the benefit of those technologies.

Learning Technology Implementation: The Biggest Hurdle School Districts Face
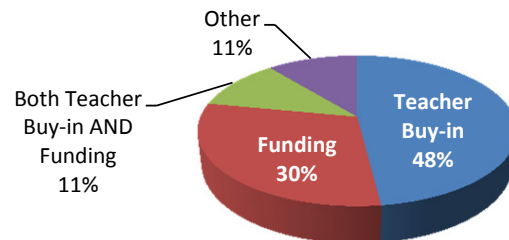
Other than teacher buy-in, 41 percent of the districts stated funding is the biggest hurdle behind effectively getting technology in the students' hands. Following changes to the school funding formula enacted by the 82nd Texas Legislature, many districts chose to cut technology budgets and staff to a minimal number of ventures for the schools. It is difficult to determine how funding adjustments made during the 83rd Texas Legislature, as well as subsequent biennial budgets, will impact school district technology budgets in the coming years.

Still, Texas has made efforts to increase access to technology funds through its policy changes. During the 82nd Legislative Session in 2011, the Instructional Materials Allotment was created.[4] This gives districts the freedom to use funds designated for instructional use to include technology-related devices and application software. Many participants in our interviews lauded this victory.

Staying Connected

Staying on top of the latest happenings in digital learning is an unending task. When asked how the technology departments stay on top of the latest applications, software, and advancements, the most notable avenue mentioned was the Texas Computer Education Association (TCEA).[5] This

organization offers an array of resources to help teachers and technology staff effectively integrate digital learning in the districts. Jennifer Bergland, Director of Governmental Relations at the Association, states their annual conference pulls in around 13,000 attendees consisting of teachers, administrators, and technology specialists.[6] This conference is currently the second largest education technology conference in the United States. TCEA is comprised of around 15,000 members, and aims to be a resource for teachers integrating education technology in the classrooms. Their webinars serve as sources for those unable to physically attend the conferences and cover a wide range of education technology topics throughout a given year, from integrating iDevices to understanding the high school technology TEKS.

For teachers to succeed in the implementation of more technology in the classroom, strong partnerships with the technology staff within the districts are necessary. Larger districts have already set up the infrastructure of technology departments with staff that specialize in instructional technology, networking, and informational technology. However, smaller districts are often unable to provide as much support in these efforts. For this reason the 20 Education Resource Centers around Texas, funded by the state under the Texas Education Code, are set up to assist in this capacity. Unfortunately, at this time, districts did not note the significance of added support from these region centers.

Seeing the Benefits

Today, children in Texas public schools are much better versed in using technology on a daily basis than previous generations. Some teachers argue the kids know more about technology than they do. So, putting students in a four-walled room with pencils and paper is like putting them in a time capsule and zapping them back into the past. It should come as no surprise that some students struggle with behavior and focus issues. When technology is properly implemented, teachers and administrators are seeing an increase in participation, an excitement for learning, and a more successful retention of knowledge.

Student engagement is one of the most significant among those benefits. Rather than simply listening to a lecture on the parts of the human respiratory system, online sources allow students to watch a simulation of blood flowing

through the body. The capacity for students to self-pace is also hugely significant. Students struggling in a certain area can watch online tutorials from high quality teachers around the country, or email tutoring sites for instruction. Students who far exceed the content in a certain area can work on projects to further their learning and apply the knowledge learned to see where their imagination and academic talent can take them. With more access to technology, students have access to more individualized education.

Going Forward Into the Digital Age
Mandate Reduction

Texas took positive steps during the 83rd Legislature to improve online learning in Texas. There is now significantly more flexibility for providers of online content, as well as an improved vetting process for online coursework to ensure that the content is high quality.[7]

However, the results of this survey suggest there is still significant work to do at the district level with learning technology implementation, as teacher buy-in remains a problem in more than half of the districts interviewed. School districts must find ways around this problem if we are to see a genuine and effective proliferation of learning technologies in Texas.

A Texas Education Agency mandate that teachers must use a minimum amount of time working with technology is clearly not producing the desired result. Districts need maximum leeway to apply learning technologies in a manner that best supports the learning experience of their students, as well as their educators. As much will be realized through a reduction of fiscally impactful mandates (such as the K-4 class-size cap), rather than regulations on how much time a teacher must invest in learning technologies in their classroom.

Student Eligibility

From a national perspective, Texas has very strong digital learning policies. Digital Learning Now, which conducts an annual assessment of learning laws across all 50 states, ranked Texas 11th nationally for its standing policies. One significant area in which we grade out poorly is student eligibility.[8] Texas still restricts its full-time online learning opportunities to students enrolled in Texas public schools the previous year. If Texas is to move to the forefront of the digi-

tal learning movement with states like Florida and Utah, it must find cost effective ways to increase student eligibility. Maximizing participation opportunities will ideally have a positive impact on factors currently hindering the growth of digital learning in Texas, especially educator buy-in.

Conclusion

The potential of learning technologies in Texas classrooms is exciting, but there are still many challenges to overcome.

The Texas Public Policy Foundation's survey suggests we are making progress, but that we must do even more to put our districts in a position to leverage this tool to reach as many students as possible. This means giving districts more flexibility and giving students interested in receiving instruction through learning technologies the freedom to do so. Texas is near the forefront of the digital education age. A few (relatively minor) policy adjustments could rapidly establish the Lone Star State as a national leader. ★

Endnotes

[1] Brian Thevenot and Sarah Butrymowicz, "More High School Students Acquire Online Credits," *The New York Times* (4 Nov. 2010) accessed 23 Aug. 2013.

[2] Ibid.

[3] "Texas Essential Knowledge and Skills," Texas Education Agency (last modified 26 Aug. 2013).

[4] "Instructional Materials Allotment," Texas Education Agency (last modified 13 June 2013).

[5] Texas Computer Education Association (last modified 2013).

[6] Jennifer Bergland, Director for Governmental Relations, Texas Computer Education Association, interview by Brandy Alexander, Austin, Texas (15 Aug. 2013).

[7] "HB 1926," Texas Classroom Teachers' Association.

[8] "2012 Digital Learning Report Card," Digital Learning Now.

District Participants and Their Student Body Size

DISTRICT NAME	STUDENT POPULATION *Using FAST Report Data	DISTRICT NAME	STUDENT POPULATION *Using FAST Report Data
Abilene ISD	16,987	Marble Falls ISD	4,058
Anahuac ISD	1,225	Marshall ISD	5,829
Brazos ISD	821	Matagorda ISD	105
Brenham ISD	4,872	Monte Alto ISD	947
Cypress-Fairbanks ISD	105,860	Pharr-San Juan-Alamo ISD	31,424
Denton ISD	23,832	Plano ISD	55,294
El Paso ISD	64,023	McKinney ISD	24,265
Glen Rose ISD	1,640	Pringle-Morse Consolidated ISD	121
Hays Consolidated ISD	15,262	Rusk ISD	2,128
Humble ISD	35,678	Salado ISD	1,354
Klein ISD	45,092	San Antonio ISD	54,894
Latexo ISD	462	Terlingua Consolidated ISD	106
Lufkin ISD	8,588	Waco ISD	15,240
		Wichita Falls ISD	14,569

Per the FAST Report, www.fastexas.org

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