

Moving Forward:

An Interim Report of Select AVI CHAI Blended Learning Initiatives in Jewish Day Schools



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Table of Contents

Introduction	3
Emerging Findings	9
Conclusion	15
References	16

Introduction

“The path from where we started to where we stand today was far from a straight one. And it was in the dips and bumps, the wrong turns and the unforeseen curves, that the most institutional learning happened.”

Head of a Jewish day school implementing blended learning

This report on some of the blended/online learning initiatives taking place with The AVI CHAI Foundation’s support reflects a progressive story of moving forward into what many educators, like the administrator above, see as the future of education. While these blended and online learning initiatives are focused in scope on Jewish day schools, they are part of a much larger story playing out in the field of education. Across the field, in policy and practice, in public and private schools, online/blended learning is expanding rapidly, and at an accelerating rate.

Researchers documenting its growth in “[Keeping Pace](#)” (Watson et al., 2014) report K–12 online course enrollments doubling between 2008 and 2012, from 320,000 to 740,000, with 26 states offering online courses and six requiring at least one online course for high school graduation.¹ New providers and products are appearing in the digital marketplace at a remarkable, and sometimes overwhelming, rate. Advocates keeping track of online opportunities for students with special needs identified 900 apps in July 2012; by December of that same year, they found 20,000.² Of more than 2,000 students in grades 4–12 surveyed in a recent Harris poll,³ fully 90% said that new online

devices will change the way they learn in the future, offering both more personalized paths (81%), and more fun (89%), with a majority at every grade level saying they would like to be using devices even more than they are now. According to researchers Burch and Good (2014), “Digital education is no longer a trickle in public schools. It is moving rapidly downstream at storm-level intensity. It is coming, say some vendors and policy makers, whether schools are ready or not.”

A recent report, “[OESIS Blended Learning Surveys Report 2014–2015 on Learning Innovations in Independent Schools](#),”⁴ tells a similar story about proliferation. Yet it offers important contrasts between the public and private education sectors both in terms of types of blended learning initiatives being implemented and reasons why. The report posits that independent schools are selecting approaches that allow them to have more time to work with students (building on the strong instruction they think they are providing), as well as methods that make way for more creativity and critical thinking. Most independent schools have yet to adopt “advanced blended learning models” (OESIS, p. 9), which focus on data-driven intervention and student agency for pacing and direction.

¹ http://www.kpk12.com/wp-content/uploads/EEG_KP2014-fnl-lr.pdf

² <http://www.touchtechnews.com/>

³ <http://tinyurl.com/k73tjxs>

⁴ http://www.oesisgroup.com/?page_id=1194

A key question, then, is whether Jewish day schools are ready and able to adopt and adapt blended learning and what approaches they are utilizing. Since the fall of 2010, The AVI CHAI Foundation has been at the forefront of the field, working to help day schools get ready and to provide encouragement and assistance through a diverse set of grants. The goal of this work is “to improve the quality of day school education by increasing individualized data-based instruction and enabling students to develop skills and ways of thinking needed in the 21st century, as well as to bring down the cost of education.”⁵ Through these grants, many day schools are now actively introducing and implementing blended and online learning. Some are eagerly embracing this shift, moving to adopt new tools and adapt practices across their schools, despite the inevitable “dips and bumps” they encounter. Others are moving one or two classrooms at a time, taking a stance that a head of school described as “curious but cautious.” The caution comes from concerns that blended learning “has no track record, there are no longitudinal data, so it makes sense to move slowly.” Wary of the possibility that this may be just the latest “trend,” or “hav[ing] seen fads come and go, like filmstrips,” they watch and wait to see whether blended and online learning will endure.

Yet across the individual efforts within these initiatives, the progress and sense of potential are striking. Among the some 50 schools involved in AVI CHAI-funded programming, there has been forward progress, some shifts in practice, several instances of rapid acceleration toward a blended learning model, the opening of a few blended learning schools, and even the closing of one of those new schools. Despite that one closing, overall, all other elements of the initiative have been moving forward and maintaining momentum. Strikingly, we have found no school, and no teacher, that has chosen to stop or even to decrease activity in blended or online learning.

This report presents emerging findings from an examination of the experiences of day schools moving, at varying pace and with varying strategies, into the future of blended and online learning. It also examines the intermediary support organization, the DigitalJLearning Network, created to provide assistance to and build community among them. This is an interim report: fieldwork and analysis are still ongoing; new strategies

are being tried in schools; new dips and bumps will be encountered; further institutional learning will take place; and new research findings are to be expected. But at this stage, after two years of study, there is considerable progress to report, and new lessons learned that have implications for future funding decisions and further implementation efforts.

While informed by the wider effort, this report focuses on issues emerging within the schools and the network as most consequential for formative feedback. The first section begins with a brief description of AVI CHAI’s work in this area, and the second section then provides an overview of the methodology used in the research. The third section examines the context, a look at changes in the field that have implications for, or are useful to understanding, what is happening in the day schools. The fourth and the fifth sections then offer emerging patterns drawn from the data — both about progress made and about problems appearing on the horizon.

AVI CHAI Efforts

Included within the AVI CHAI blended and online learning efforts are a diverse set of independent but interconnected projects. Some are direct grants to schools — small grants to established schools, incubator grants to new ones, and new BOLD day school grants for a few select, established day schools taking up the challenge of rapid implementation of blended and online learning school-wide within three years. Others are indirect — such as the launching of the DigitalJLearning Network; a baseline survey⁶ of Jewish day school utilization of blended and online learning methods and materials in 2012 and follow up in 2014; and the development of new online Jewish studies courses.⁷

AVI CHAI’s work to promote the adoption of blended and online learning has three distinct components:

- **Existing Schools:** Supporting the adoption of online courses and blended learning programs — primarily general studies courses — at established elementary, middle, or high schools;
- **New Schools:** Supporting entrepreneurs experimenting with the model of a day school in service of both educational and cost-saving goals via the incorporation of online and blended learning and other 21st century learning ideas; and

⁵ <http://avichai.org/north-america/day-school-educational-technology/>

⁶ http://avichai.org/knowledge_base/online-learning-state-of-the-field-survey-2012

⁷ <http://avichai.org/program-listings/lookstein-center-at-bar-ilan-university/>

- **Online Jewish Studies Courses:** Stimulating the development of Jewish studies offerings online at both the middle and high school level. The AVI CHAI Foundation is also supporting the Center for Educational Technology (CET)/NETA and TaL AM to develop digital curricula in Hebrew language, which includes blended learning elements.

While there are many facets to this work, this report focuses on just three areas: 1) established day schools receiving small grants to assist them in the adoption and implementation of blended learning and online courses; 2) new schools starting up with blended learning at the core of their educational and operational design; and 3) the DigitalJLearning Network⁸, created in partnership with, and operated by, the Jewish Education Project in 2011 to provide connections among the schools and professional development assistance in planning, adopting, and implementing blended and online learning.

The Study

In the fall of 2012, a team of researchers at New York University's Institute for Education and Social Policy (IESP) began extensive study of the AVI CHAI initiatives — of the experiences of day schools introducing and implementing blended and online learning and of the Network created to provide community and assistance to them. The research was designed around the following broad questions of purpose and progress, capacity and challenges:

1. What prompts educators to move to blended and online learning?
2. What happens as day schools and teachers engage in these new strategies?
3. What capacities are needed and available to implement the methodology?
4. What outcomes do educators see from their efforts?
5. What challenges remain to be addressed?

To address these questions, IESP researchers used a mixed methods design, gathering basic (i.e. grade levels, size, affiliation, location), and project specific (i.e. grant proposals and reports) data from all 28 established and four new schools receiving funding at that time. Working with AVI CHAI staff, we then selected a smaller number of sites for qualitative fieldwork,

⁸ <http://www.digitaljlearning.org/>

reflecting the range of schools (elementary and high schools, new and established), of religious affiliation, and of implementation approaches (school-wide to single classroom).⁹ Four schools were then selected as cases of distinctive approaches to implementing online/blended learning, with two visits each year to allow for more in-depth understanding of design, implementation experience, and change over time (case studies are forthcoming). Three are new schools; one is established. One is adopting (and adapting) an externally designed station rotation model with elementary students; two are home-grown and very small secondary schools; one is a large established high school moving more slowly, or “organically.” One will not continue as a case because it was unable to enroll enough students or secure enough funding to continue as a school; fieldwork in the others is expected to continue next year.

Over two years, IESP researchers have conducted 19 visits (of one to three days) to selected schools from the pool of 32, 62 interviews with administrators and teachers across subjects and grades, and 50 classroom observations. Semi-structured interviews explored school context, educators' purposes, progress, concerns with online/blended learning, and their experience with its use (or impressions if they had not yet used it). Classroom observations used a standard protocol to record classroom arrangements and equipment, curriculum in use, and teacher/student or student/student interactions. We also collected and reviewed documents, such as course materials, assignments, and school newsletters, that were available onsite or online. All interviews and field notes were transcribed into Evernote for coding and analysis.

In addition, we closely followed the work of the DigitalJLearning Network (DJLN), talking with staff; reviewing documents; observing webinars, online sessions and onsite meetings; and documenting conference activities (including the participation of school representatives). In spring 2014, we conducted a telephone survey of all member schools, gathering information from 20 respondents about their progress and challenges in online/blended learning and their participation in the Network.

⁹ Everyone we contacted and visited, from classroom teachers to heads of school to DJLN staff, has been extraordinarily responsive and welcoming. They have given their time, provided data, and shared their insights about both the progress and the challenges of their work in online/blended learning. We are deeply grateful for their participation.

Summary of Findings

- Overall, Jewish day schools which are part of the Digital Learning Network and the new school projects show progress and potential. As a subgroup within the set of independent schools and the larger set of all schools (including public schools), Jewish day schools are implementing blended and online learning ahead of pace and maintaining the momentum of their forward progress.
- The Jewish day schools in the study have a common understanding of blended and online learning, but they differ in their method and pace of implementation.
- The blended and online learning work in the schools share eight common elements. As these eight are further understood and refined, they will provide a conceptual framework within which the progress of the initiative will continue to be analyzed.
- The Digital Learning Network schools engage in valuable opportunities for schools to learn and share.
- Major challenges to implementation include: quality of providers and products and technological capacities of schools.
- New incubated schools have not yet provided evidence of cost savings.

Background: A Changing Field

The field of blended learning is continuing to grow, and its pace is accelerating rapidly. The shift from a “trickle” to “storm-level intensity” cited above (Burch & Good, 2014) is most evident in the rapidly accelerating expansion of providers and products. In what *Education Week* described as a “multibillion dollar market,” the field represents an opportunity that some have likened to the “wild west,” or a new gold rush (Cavanagh, 2014). As a recent headline from a news website¹⁰ proclaimed: “Bonanza: Silicon Valley sees gold in corporate-driven school reforms.” Activate Instruction,¹¹ with funding from the Girard Foundation and support from The Alvo Institute, has in just one year produced 2,000 teacher-generated “playlists” (that include diagnostic assessment, online

resources, practice materials and final assessments), available across K–12 content areas, with 150 new ones to be released this summer. In 2014, EdX,¹² the partnership between Harvard and MIT that produced many university-level MOOCs (massive open online courses), announced their new High School Initiative, offering 27 courses for secondary students, many of them Advanced Placement level.

Support for efforts inside schools is increasing as well, as not only states and vendors but also federal agencies and foundations identify online/blended learning as an opportunity for increasing access, educational improvement, and cost containment. To help more schools get ready, in July 2014 the Federal Communications Center (FCC) announced an appropriation of \$2 billion to make Wi-Fi available in schools for more than 10 million students, since earlier efforts to ‘wire’ buildings can no longer meet current demand. As another example, the Broad Foundation¹³ announced more than \$20 million is invested in blended learning programs, constituting more than half of their investing and up from a tenth a few years ago. Additionally, last year Next Generation Learning Challenges¹⁴ announced \$3 million in planning and \$9 million in start-up funding for what they call breakthrough models of new school-wide blended learning models in two sites (Chicago and D.C.). This year, they have expanded efforts into four new regions. As the administrator quoted at the outset of this report declared, and as so many others now seem to agree, “I know this is the future of education.”

While it may be apparent to many that this is where the future is heading, the field is still uncertain and largely uncharted, with terminology and metrics still undefined. In the past few years, the field has shifted away from the term “online learning,” which carried with it unfortunate echoes of distance learning, images of isolated students in front of screens, and fears that teachers might be replaced by computers. The increasingly popular use of “blended learning,” by contrast, offers a term that is more flexible and inclusive, with descriptions of students in small groups and teachers taking a central role as designers and facilitators — the best of both worlds. The most commonly used definition, from the Clayton Christensen Institute, allows for considerable variation:

¹⁰ <http://capitalandmain.com/bonanza-silicon-valley-sees-gold-in-corporate-driven-school-reforms/>

¹¹ <http://www.activateinstruction.org/>

¹² <https://www.edx.org/high-school-initiative>

¹³ <http://www.broadeducation.org/>

¹⁴ <http://nextgenlearning.org/>

A formal education program in which a student learns 1) at least in part through online learning, with some element of student control over time, place, path, and/or pace; 2) at least in part in a supervised brick-and-mortar location away from home; and 3) the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience.¹⁵

This year, the language is shifting again. Burch and Good (2014) talk of “digital education” to include the many different forms and formats of the field; many, most prominently the Gates Foundation, are now speaking and writing about “personalized learning” (see also Broad, Dell, SRI). Dell Foundation documents are referring to “first movers” rather than early adopters, with the clear implication that others will be moved. This is in part the mark of a field in flux, and it is likely that terms will change again: “We are, let’s face it, a Tower of Babel when it comes to defining what we’re all doing here,” declared an *Education Week* article. The article noted that we might all be talking about the same thing but naming it differently, whether reports use blended learning, or competency-based, personal, digital, online, connected, deeper, project-based, student-centered, optimized, hybrid, or next generation learning (Calkins, 2014).

Without clear definitions, getting a clearer sense of just what, and how, to measure in terms of progress is difficult, and “the picture remains very muddy” (Burch & Good, 2014, p. 40). A recent publication from the Dell Foundation acknowledged that “evaluating research studies in blended learning is a tricky business, especially given that there’s no agreed upon definition of success” (Niehaus, 2014). While in many studies standardized test scores remain the ultimate outcome measure, researchers and reformers are experimenting with new indicators to assess factors particular to an online learning experience. New measures of “on taskness” and “energy level,” for example, are now being tested in the Rogers’ Foundation pilot program in Oakland, CA schools. The Learning Accelerator, a substantial investor and advocate for blended learning, began to rethink how evaluation can help both to assess impact (to move beyond achievement scores to measures such as “grit, self-control, and curiosity”) and to develop stronger supports for the many schools they see struggling with implementation.

While rhetoric about the future tells a story of promise, research in the present is raising critical questions about equity, quality, and economic viability. The FCC investment in Wi-Fi capacity, cited above, was in part a response to what the federal government recognized as a “digital divide” and what others are describing as a digital gap. They warn that students graduating without digital literacy will be disadvantaged in both college and careers, and “fewer than 30% of America’s schools have the broadband they need.”¹⁶ The digital gap isn’t limited to hardware and access, according to researchers. Digital literacy, encompassing skills such as online reading and research, is distinct from (but tied to) academic performance, and also linked to income levels. In a recent study, more than 25% of more affluent students were able to assess reliability of information online, while fewer than 16% of lower income students could do so (Leu et al., 2014). Implicit in these calls for increasing access to and skill on the internet is the growing consensus that this is indeed the “future of education,” and that a child left without digital access and competence will be a child left behind.

Access is tied to quality in the recent book by Patricia Burch and Annalee Good (2014), who found increasing allure, adoption, and pressure to move to online learning everywhere, but the capacity to identify and access quality materials unevenly distributed. In an interview about their study, they “worry that the incredible promise of digital education will be lost if we don’t decelerate and really pay attention to the content of what districts are spending their very limited resources to buy” (in White, 2014¹⁷). They further caution that until we have better measures and stronger studies informing educators, “going slower with digital education can mean moving smarter.” Issues of access to internet and equipment, as well as quality of products and how to assess them, have been reported in small implementation studies (i.e. Jacobs, 2014; Murphy et al., 2014). Many eagerly await the findings of WestEd’s large-scale, randomized control trial of Khan Academy algebra, which was federally funded for \$3 million and just getting underway in 2014. Issues of equity, access, and even success are quite different in day schools, but several administrators interviewed expressed similar persisting

¹⁵ <http://www.christenseninstitute.org/key-concepts/>

¹⁶ <http://www.whitehouse.gov/issues/education/k-12/connected>

¹⁷ <http://www.education.wisc.edu/soe/news-events/news/2014/04/28/good-burch-examine-potential-dangers-of-privatizing-digital-education>

uncertainties about product quality and the capacity required to use them. So, too, did the charter schools in the Oakland, CA pilot project, adopting the motto, “Go slow to go fast” (Jacobs, 2014¹⁸). Day schools have their own context, capacity and commitments to consider as they decide on both the pace and shape of their blended learning implementations.

These concerns echoed as well in Michael Horn’s reporting on the “growing pains” of the Rocketship¹⁹ shift from rotational models to much larger class sizes and more flexible groupings, a strategy intended to be not only more disruptively innovative, but more cost effective. This experiment was, in many ways, a test case of the claims to economic benefits of blended learning. Instead it became a cautionary tale of implementation effects: “It pushed too far too fast and test scores fell at all their schools.”²⁰ One of the more widely publicized stories raising warning flags came from Los Angeles, where policy makers had invested heavily in a 1:1 iPad initiative with new digital curriculum, but provided less intensive support for implementation and capacity building inside schools and classrooms. In their interim report, AIR researchers evaluating the project found that in 245 classrooms observed, many teachers had technical difficulty with the program or even with logging on: only one was using the new program as intended.²¹

Further questions about the “productivity promise” of blended learning as a cost effectiveness strategy were raised

when researchers at the Center on Reinventing Public Education (CRPE) released preliminary findings from their study of the financial plans of eight Next Generation Learning Challenges funded new charter schools (Miller, Gross, & Lake, 2014²²). With \$150,000 in planning grants and up to \$300,000 in start-up funding, these “pioneers” found moving forward much more difficult than anticipated, not primarily because they had underestimated costs, but because they had overestimated enrollments. Indeed, many had thought that as new charter schools, they could count on a public school population willing and eager to try a new and tuition-free alternative — even a relatively untested one. At the end of the first year, seven of the eight schools missed their enrollment targets (the median by 14%); five of the schools had to substantially cut their technology budgets to remain open. The authors do not characterize this as a design failure. Rather, they warn future implementers to be more cautious in expectations, and more active in recruiting — lessons that are echoed in the experiences of the new schools starting up with support from AVI CHAI. Both the CRPE study and the AIR evaluation cited above provide potent reminders of what has long been a truism in policy and organizational change research: “implementation dominates outcome.” Local context, capacity, and commitment matter profoundly to the implementation of even the most promising and carefully planned innovation (McLaughlin, 1990).

¹⁸ <http://educationnext.org/beyond-factory-model/>

¹⁹ Rocketship Education is a network of public K through 5 charter schools. <http://www.rsed.org/>

²⁰ http://hechingerreport.org/content/growing-pains-can-disruptive-innovation-benefit-students_16722/

²¹ http://blogs.edweek.org/edweek/DigitalEducation/AIR_CCTP%20Evaluation%20Interim%20Report_Exec%20Summary_091514%20final.pdf

²² <http://www.crpe.org/publications/personalized-learning-meeting-its-productivity-promise-early-lessons-pioneering-schools>

Emerging Findings

Finding 1

Overall, Jewish day schools which are part of the DigitalJLearning Network (DJLN) and the new school projects show progress and potential.

As a subgroup within the set of independent schools and the larger set of all schools (including public schools), Jewish day schools are implementing blended and online learning ahead of pace and maintaining the momentum of their forward progress.

In the first year of the study, we observed schools going through the first, slow adoption stage of organizational innovation, and then a rapid increase of activity as established schools took “many steps” into early implementation and new schools started up. By the second year, across the schools, there was a sense of steady progress and affirmation that the decision to move forward with online/blended learning is something they are more comfortable with and more confident about. They are moving forward and radiating outward as more teachers, more classrooms, and more students engage these new tools and techniques. In their annual reports to DJLN, the schools document steady growth in the numbers of students participating in at least one online/blended course: from 8 to 25; from 10 to 21; from 1 to 50. In no school is participation shrinking, and in several sites the growth is remarkable: from 165 to 320; even from 9 to 465. While this pattern emerges across the sites, looking closely at one interview illustrates most vividly what maintaining momentum does and does not mean.

A Director of Academics answered the question of what is new this year almost apologetically, characterizing their progress as “maintaining.” But what became clear in her next sentences was that “maintaining” does not mean maintaining the status quo; they are continuing to move forward with blended learning, and to adapt as they go. She explained that “everybody” is now using blended learning, though “well, not in Judaics, no.”

Even there, there are “some activities, computer opportunities, or CDs for enrichment or concepts, or for support.” She took part in the planning process provided by DJLN, which “put us in a place where we were more able to reflect and think, ‘We need to focus more on the problem solving.’ We were able to see that based on the self-reflection process.” With that new focus, they are “doing more differentiation in terms of Raz-Kids²³ and IXL²⁴: which tabs, how much time, more awareness of individual elements — some students need more, some less. One student — this is not for her. She was having a visceral reaction.” And while they may have decided that blending is not for everyone, they have also decided it is for more students than they had thought: “We also identified kids in kindergarten who could benefit. We have not had it for them, but now we will use it as enrichment.” Maintaining is not about standing still; it is maintaining the direction the schools have taken, and maintaining momentum toward deeper and wider implementation of online/blended learning.

Finding 2

The Jewish day schools in the study have a common understanding of blended and online learning, but they differ in their method and pace of implementation.

Unlike researchers and reform advocates, teachers and administrators in the AVI CHAI initiatives use the term “blended learning” almost exclusively. Although to some degree that might be an artifact of our introducing ourselves as researchers studying online/blended learning, it is also frequent in their own conversations, newsletters, and explanations. While there is considerable enthusiasm and a sense of momentum regarding blended learning, and people across the sites do use that phrase to describe where they are going and intend to

²³ Software used for personalizing instruction in reading. <http://www.raz-kids.com>

²⁴ Software used for personalizing instruction in math and language arts. <http://www.ixl.com/>

go, many acknowledge that their schools are not “truly” there yet. Most school staff make the distinction, as one director did, between “blended learning” and “technology integration” (although that is not a term they use as often). She offered that their current status, with almost every classroom using “some activities, computer opportunities, CDs for enrichment or concepts, or for support” is “not blended learning, not really.” Frequently the distinction is made in explanations about what is “not really” happening in Judaic studies, although technology is often routinely incorporated into classroom activities as teachers experiment with self-made videos to flip their classes, or with online resources to enrich teacher-led instruction. As another administrator put it, “Integrating technology, I’d say 95% are doing something. Actually doing blended learning? That’s a lot more difficult, but I’d say about half.” A similar pattern is observed in data in the second AVI CHAI “Online Learning State of the Field Survey,” where respondents indicate greater use of online activity as a supplement to traditional teaching, rather than a shift to fully blended (Deeter, 2015).

The question is what, then, counts as “actually doing blended learning?” Is a flipped classroom, where the teacher videotapes lectures and has students watch them at home, really blended? Or a yearlong project where students construct a town mural, assisted by computer design? Or a reading class where students do practice drills and are assessed online? If that leads to grouping by student pace and ability, but does not transform the instruction itself to be more personalized, is that truly blended? One of the great strengths of blended learning is the variation that it affords — a mix of online and face to face that fits the school, the subject, and the student — but that mix is distinctively different from school to school, subject to subject, classroom to classroom, and in some classes, even day to day. At one school, for example, students are using differentiated reading instruction in English (the same news story available at multiple reading levels), online simulations in math classes, and a flipped classroom in chemistry. Another school has a flipped class in Tanakh, simulations and robotics in physics, and individual students doing exclusively online courses in subjects the school could not offer on its own. So the question of whether either, or both, are ‘actually doing blended learning’ is not an easy one to answer. Clearly both are doing more than basic technology-enhanced teaching; clearly both are moving forward toward wider and deeper implementation of blended learning.

Finding 3

The blended and online learning work in the schools shares eight common elements. As these are further understood and refined, they will provide a conceptual framework within which the progress of the initiative will continue to be analyzed.

From the research literature, and from our own data, we have identified a set of common elements that comprise the kind of blended learning schools are working to move toward:

1. Variety of instruction mode and media
2. Increasing content opportunities
3. Diagnostic assessment and data use
4. Differentiated instruction
5. Personalized student pathways
6. Production/publication of student work
7. Teacher role shifts
8. School wide planning and support

As do teachers and administrators in the schools, we analyze blended learning on a continuum, from the traditional style of teaching to technology-enhanced to truly blended to fully online. On average, the day schools studied fall somewhere between technology-enhanced and truly blended, but averages can be misleading.

We find that individual schools have focused their energy on, and moved faster toward, particular elements (“planes”) depending on their mission, context, immediate needs, and existing capacity. As recent research has cautioned, there are advantages to schools that “go slow to go fast” with different elements, depending on their particular situation. So, for example, **increasing content opportunities** by bringing in courses that they would otherwise be unable to staff is a strategy that fits more readily into high schools, where education has traditionally been organized as courses. On the other hand, elementary schools have an easier time finding programs with **diagnostic assessments** built in, such as iReady for reading, that provide frequent feedback through data on individual student reading levels and skills in need of improvement. New schools, where all classrooms are blended, are more likely to have progressed farther with **school-wide planning and support** than established schools, which may have just one or two teachers experimenting at the edges. Variation is tied to

individual school mission as well: the project-based learning school quickly moved forward into **production/publication of student work**, putting out public displays in the community and online; another new high school focused first on **personalized pathways**, pulling in online courses to offer more than 40 different courses with only a small staff of part-time teachers. These variations are matters of local priorities and scarce resources — all schools agree these elements are valuable long-term or aspirational goals. But at this point, they are, like the wider field, still working out where to go next even as they are moving forward, figuring out how to assess their progress, and deciding what would count as “really” blended in a way that fits their particular mission and context.

Finding 4

The DigitalJLearning Network schools engage in valuable opportunities for schools to learn and share.

Participating in the Network, as well as attending conferences, gives schools the opportunity to see where others have gone, and to decide where — and how far and fast — to go. School staff working toward blended learning credit DJLN with much of the progress in motivating them, reassuring them, and keeping momentum going through the “dips and bumps” when implementation issues seem difficult or directions uncertain. More than the specifics of funding grants, they talk of the encouragement of the AVI CHAI initiative, the assistance from DJLN staff, and the opportunity to learn from each other. They also speak positively and frequently about the gateway function that AVI CHAI and DJLN have provided, proudly reporting that they have gotten “scholarships” to go to national conferences, to talk with and hear from the wider field.

While it is not always clear how much substantive learning they bring back and use from formal conference presentations, they clearly do bring back a renewed enthusiasm. Moreover, DJLN sessions and shared meals give participants the opportunity to connect what they are learning to the day school context, and most importantly to connect to each other. Teachers who have not gotten scholarships, did not know to apply, or were unable to attend talk of loneliness — thinking they are the only ones struggling with implementation. Yet within the field, the Network, and sometimes even within their own schools, they could find colleagues to commiserate

and collaborate with, if they only knew where to find them. Here the variation among member schools described above is an advantage; as any school takes up a new element, there is likely to be another with experience they could learn from. DJLN has begun to address this need through online sessions and chats where individual teachers or administrators post questions and share lessons learned; through email blasts about external resources; and through their increasingly active listserv. Nevertheless, building community and reaching all the potential teachers who could benefit from participation remains a work in progress — and will as the numbers grow.

Finding 5

Major challenges to implementation include: quality of providers and products and technological capacities of schools.

As in the public school field, concerns about quality of products and providers are emerging as an issue. None of the day schools reported problems like that encountered in the Oakland pilot schools, where a provider brought in to develop their learning management system and data dashboard “gave up in mid-September, returned the money, and quit the pilot” (Jacobs, 2014). More common are concerns about the academic quality offered to students by existing providers (such as Khan or K12), about customer service and responsiveness when things go wrong, or “difficulty finding material at just the right level, in just the right sequence, that would not assume prior knowledge students didn’t have, and could build on knowledge they actually did have.” Given the rapid pace of development of new products, most teachers and administrators do see signs of improvement, of better quality and better fit: “we couldn’t have chosen that one last year; it didn’t exist yet” or “each one is better than the last.”

Unlike public schools, with the constraints of distance from district decision makers and the time delays of curriculum purchasing cycles, day schools can adapt more quickly, and they are growing increasingly comfortable with dropping providers and switching programs even mid-semester. As one director explained, “we try to be very flexible, so as soon as something is not going right, we change it. If it is going right, we improve it.” Although the expense of what they want is not always matched by the budget they have,

many are finding free resources, if not entire courses, as a viable alternative. But while academic and technical quality concerns are shared across the field, and researcher and consumer report-style ratings are becoming more widely available, day schools have a distinctive and different set of concerns about contextual appropriateness.

Across the schools, teachers and administrators have raised concerns about details that “could be a deal breaker for us,” such as the outfits on avatars, the ingredients on virtual pizzas students earn with correct answers to math problems, or the multicultural inclusion and exclusion of character types. They also consistently and persistently look to each other for hope on the horizon for what one principal called “the million dollar question” for day schools — good resources for blended learning in Hebrew and Judaic studies classes. For such concerns, DJLN and its members are the only, and an invaluable, resource, and they hope to see it develop more capacity, more collaborative assessment, and more exchange.

As momentum grows inside schools for more classrooms and more students to take advantage of blended learning, technical capacity issues are a rising challenge. Like the FCC initiative described above, day school administrators are recognizing a Wi-Fi challenge. While existing wiring and bandwidth worked adequately for isolated computer labs, as students are turning on many laptops at once, or teachers are using web-based materials across the building, what was adequate a few years ago no longer suffices. In many classrooms, extension cords and power strips create obstacle courses for movement. In one site visit, a teacher eager to show what she was doing in blended learning could not — because “the internet is down.” She reported sadly, and other teachers confirmed, that this is a frequent occurrence, but since their school is scheduled to move to a new building in the near future, the administration is unable (or unwilling) to invest too much in upgrading Wi-Fi capacity.

In another school, bandwidth limitations mean that teachers need to check each other’s lesson plans to avoid overloading the system — which might have unintended benefits in professional community, but does not benefit blended learning momentum. In still another, a science teacher happily moved classrooms to a second floor lab with sinks and Bunsen burners — but beyond the reach of the school internet signal. She adapted for a while, using her own phone as a hot spot until

her data plan costs became unwieldy. In another school, using reading differentiation, math simulations, and flipped chemistry, students doing any of those activities in class have to pack up and move to the computer lab since they lack both Wi-Fi and hardware capacity for widespread classroom use. While technical capacity was adequate for schools taking their first steps to blended learning, acceleration and even maintaining momentum may well leave many classrooms and students behind. It may well be that in the long term, the cost-effectiveness of blended learning offers tremendous advantages. In the short term, however, the costs of maintaining momentum may be more than some schools can afford without more help.

Finding 6

New incubated schools have not yet provided evidence of cost savings.

As noted earlier, the motivation and goal animating AVI CHAI’s work in blended/online learning is two-fold: 1) to improve the quality of education by increasing individualized instruction and enabling students to develop skills and ways of thinking needed in the 21st century; and 2) to bring down the cost of day school education. The strategy of incubating new schools with blended/online learning as their core model of instruction aims to disrupt the day school field in ways that may influence existing schools to make more radical changes. The expectation is that only some of these schools will succeed, and the field can utilize both successes and failures as learning opportunities.

Across the new schools, there are strong patterns of progress. Schools have been able to design and build innovative programs, and to recruit enthusiastic faculty (many with experience) who have gained competence and confidence in the new pedagogies of online/blended learning. Across the country, other educators reach out to these sites, and to their leaders, for what schools could do (and should not do) with online/blended learning. Those patterns of progress and examples of success will be discussed in detail in the case studies. But as these schools grow beyond the first stages of starting up, there are also emerging patterns of new problems on the horizon — not because of failures of design or even of implementation, but simply because they are entering a new phase of growth, encountering new demands in program, and approaching pressure to reach the target of self-sustainability. The goal of

demonstrating a potential for cost-effectiveness is moving forward more slowly than anticipated at best; at worst, one school was unable to maintain at all.

While existing schools often struggled to fit new technologies and practices into established infrastructures and routines, new schools faced the challenge of developing infrastructures and devising routines. The challenges are quite different, but both are time consuming. For example, as one new head wryly noted, “we had a meeting, for parents, to talk about this earth-shattering blended model, but spent half the day on bus schedules.” Other administrators, similarly excited about their own “earth-shattering” blended designs, found much of their time taken up by recruiting students and teachers, configuring schedules, figuring out state regulations and college requirements, or searching for funding opportunities. New schools also confront the double-edged challenge of growth. As schools do bring in new students and new teachers, it takes time to familiarize them with the school culture, and with new forms of often unfamiliar pedagogy. Decisions that founding teachers had a part in making, and are invested in, need to be explained, justified, and taught to new arrivals. Schedules and classroom arrangements need to be rearranged, and new grade levels with different curricular requirements accommodated. On the other hand, if they do not bring in sufficient numbers, the schools confront the daunting challenge of having to rearrange fiscal plans, make budget cuts, and even face financial instability. All of the new day schools, as all new schools do, have encountered these challenges, to varying degrees and with varying levels of success. While sharing many of the stresses of any startup, each school has a distinctive model, and each has its own unique trajectory — described more fully in the forthcoming case studies.

Zafon²⁵ is a blended learning elementary school, with a station rotation model that is in many ways a familiar design (like many Montessori schools but with computers added). They have grown relatively quickly, to 160 students and 18 teachers in their second year, and relatively easily, with little staff effort expended on recruiting (though considerable board activity). While teachers talk of a bit of “shock” and a “steep learning curve” in the school’s emphasis on data-driven instruction, they also talk of being able to do assessments more efficiently

²⁵ Conforming to the norms of confidentiality in academic research, all school names are pseudonyms.

with the new technology, and to meet the needs of students who are far ahead or behind more quickly with the flexible groupings this model allows. They are maintaining the parameters of their design (with minor adaptations), adding another grade next year, and almost reaching the enrollment target that would let them be self-sufficient. While it is too early to say much about the academic outcomes of the model, next year they plan to incorporate more academic performance standards and more differentiated instructional expectations.

Mizrach is a project-based blended learning secondary school, also in just its second year of operation. They, too, are maintaining the basic parameters of their original design but adapting as they grow. They began with middle school students, undifferentiated by grades, but as students advance to higher grades they are pushing toward higher academic expectations — with a stronger need for college readiness, AP exams, and college applications. They are further from their target enrollment, with only 14 students in grades 6 to 10 (four of them boarding from across the country and Canada), but have defined themselves more as serving a “niche market” that will almost inevitably grow slowly. In terms of academic offerings and blended learning opportunities, they are moving far and fast, but in terms of proof for affordability, one of the goals of the AVI CHAI initiative, they still have far to go. They have been able to identify some other sources of funding — a grant from a foundation with support for the arts, for example — but are working hard to find ways to maintain their own existence.

Darom was in many ways the most radical and the most risky of the new school designs. Focusing on personalized flexible pathways for students, using a considerable amount of online instruction, and offering a rather extreme reduction in tuition (to \$5,000), the founders designed a disruptive innovation they hoped would be a model “reinventing the experience of Jewish education.” School leaders devoted considerable research to their planning in an effort to “question every aspect of secondary education: Can it be done better? And cheaper?” They developed an ambitious design to be “the Amazon of high schools.” Yet despite considerable success with the 30 students enrolled in their third year, they could not grow as much as they needed. Like the charter schools studied by CRPE, they fell far below the enrollment of 70 students they needed for financial survival and, despite a considerable fundraising effort by the directors and the families, could not identify

additional resources to sustain them until they could reach that target. In September of 2011, Darom opened the doors to a radical experiment in secondary day schools; in June 2014, they had to close their doors.

Despite the closing of one new school, and the slower than hoped growth of another, overall the new schools are moving forward in expanding their use of online resources and their implementation of blended learning and maintaining or

accelerating momentum as they go. They are serving as exemplars of blended learning for other day schools, as witnessed by the number of tours they have given to other day school leaders in the past two years. The key problem to anticipate here, as in the CRPE study of charter schools, is that starting up and enrolling enough students to become self-sufficient may well take longer than enthusiastic designers have anticipated, and require longer-term incubation support.

Conclusion

Overall, throughout the initiative and across the individual sites, educators are moving forward and maintaining momentum in the implementation of online/blended learning. Their schools and classrooms may not yet be “truly blended” — this is challenging and difficult work, after all — but they are making considerable progress and are committed to moving forward into this future. Established schools that experimented at the edges have expanded to more classes and more students, and are moving the new technologies and pedagogical techniques closer to the core of their educational practice. New schools that began with online/blended learning at the core have made substantial progress in devising and revising models, developing new competence and confidence in the quality of their work, and establishing new norms for faculty and students. In one of the most distinctive findings of this study, no school, and no teacher, reported slowing down or stopping their efforts voluntarily; they might change providers or change organizational arrangements, but they did not change direction once they had begun to move toward blended learning. The second AVI CHAI “Online Learning State of the Field Survey,” too, shows similar results: more day schools are taking up online/blended learning; schools that have begun are expanding its use; no schools reported plans to discontinue or decrease implementation (Deeter, 2015).

In the context of what is happening in the larger field, the progress is considerable. Large problems have been very rare, and ongoing problems that have arisen are consistent with expected implementation processes. The challenges they are encountering are typically not failures of design, but rather new issues emerging on the horizon as a consequence of

their growing numbers and growing ambitions. Maintaining momentum (in the senses detailed above) is a remarkable accomplishment. Schools continue to search for programs and providers to meet their growing needs, but they are refining their understanding of what those needs are — even where resources are not yet available or affordable. Day schools, as independent schools, seem uniquely positioned to make quick adaptations or to change providers, quite literally making mid-course corrections. They are seeking and expecting programs that are “better” as the field develops: that are sound educationally as well as engaging for students, that offer instruction and opportunities for inquiry as well as practice, and that provide usable data on not just how well students are performing but on which skills (increasingly available in math and reading). They have been less successful in finding more adaptive programs that tie performance data to instructional strategies (especially at the secondary level), online or blended programs that meet their standards for Hebrew language, and more sophisticated programs in Judaic studies more generally.

Like the field at large, the sites and the support network remain active, enthusiastic, and committed to blended learning as the education of the future, but cautious about unproven or unready resources and providers, and about their own capacity to provide “real blended learning.” Also like the field, the day school experience suggests caution about expectations for any major increase in productivity or reduction in costs; it may be realized in the future, but not without considerable investments in capacity (both technical and human). Most of all, as a director observed, it will take considerable investment of one very scarce and very valuable resource: “time, it is always time.”

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