

Bronx Charter School for Better Learning

**CHARTER SCHOOL DISSEMINATION GRANT
YEAR ONE PROGRESS REPORT**

**Submitted to the
New York State Education Department**
August 25, 2017
By Josephine Imbimbo, Ph.D.
jody@relearningcurve.org



Research for Limitless Learning

540 President Street, Brooklyn, NY 11215
www.ReLearningCurve.org

BBL CHARTER SCHOOL DISSEMINATION GRANT EVALUATION FINDINGS FOR YEAR ONE

Executive Summary

The Bronx Charter School for Better Learning (BBL) is partnering with two schools, P.S. 111 Seton Falls Elementary School and C.S. 112 Bronxwood School, for the purpose of sharing BBL's instructional practice through the introduction of BBL's newly designed educational app and manipulatives that are a central part of BBL's math instruction. BBL is providing both schools with: free copies of interim and complete versions of iCountBetter; training for their teachers, for the duration of the grant period and beyond, through workshops, team and co-teaching and individualized or small group meetings, all of which offer the partner school teachers strategies to integrate and leverage a digital curriculum; iPads sufficient to support use of the application in all of their Kindergarten, 1st, 2nd and, subject to pending budget modification approval, 3rd grade classrooms.

ReLearning Curve conducted an evaluation of the dissemination project to determine if BBL is meeting its program objectives. Data included observations of professional development and app design meetings; interviews with the assistant principals from each of the partnering schools and the professional developers; surveys of partner school teachers; and an analysis of programmatic data that documents app development, professional development frequency and teacher participation.

Program documentation indicates that BBL has adequately completed its scope of work proposed for the first year of the project. The iCountBetter app has undergone considerable development over year one and some features will be implemented ahead of schedule. Overall, teachers made good use of the software provided to them through the dissemination grant. Although the focus of the dissemination grant is math academic achievement, teachers also received and learned to use digital resources for ELA. Through access to a variety of educational software, the teachers became more expert in selecting and utilizing digital resources that were most appropriate for their students. Based on their usage, teachers' feedback has had an impact on the ultimate design of iCountBetter. The teachers responded very favorably to the PD that they received and they look forward to building on what they have learned. Although more sessions of PD were originally envisioned, there are already signs that the PD is having an impact on teachers' instruction, based upon their self-reports, as well as observations made by the APs and BBL's PD consultant.

Approaching next year, teachers and the APs of the partnering schools made suggestions for changes. Those include expanding the project to cover the 3rd grade, having a well-defined project plan, and the tracking of PD frequency, as well as the use of the iPads for instruction. Such changes are being planned for the next school year.

The Bronx Charter School for Better Learning Charter School Dissemination Grant Evaluation 2016-2017

Section I: Introduction

Background on Participating Schools

The Bronx Charter School for Better Learning (BBL) is partnering with two schools, P.S. 111 Seton Falls Elementary School (PS 111) and C.S. 112 Bronxwood School (CS 112), for the purpose of sharing BBL's instructional practice through the introduction of BBL's newly designed educational app and manipulatives that are a central part of BBL's math instruction.

Both of the partnering schools serve students from the same, immediate geographic area. PS 111 Seton shares a campus with BBL and currently seven of BBL's classes are housed in the main PS 111 building. BBL has previously partnered with PS 111, providing some of its teachers and administrators with an initial introduction to Visible and Tangible Mathematics. PS 111 has lagged behind state, city and local District 11 mathematics achievement over the past several years and CS 112 has been designated a Priority School.

To fulfill its partnership obligations, BBL is: (a) providing both schools with free copies of interim and complete versions of *iCountBetter*; (b) training the partner school teachers for the duration of the grant period and beyond, through workshops, team and co-teaching and individualized or small group meetings, all of which provide the partner school teachers with strategies to integrate and leverage a digital curriculum; and (c) supplying iPads sufficient to support use of the application in all of their Kindergarten, 1st, 2nd and, subject to pending budget modification approval, 3rd grade classrooms.

BBL has engaged the services of ReLearning Curve (RLC) to conduct the evaluation of the dissemination project. To determine if BBL is meeting its program objectives, RLC has collected and analyzed quantitative and qualitative data from the first year of the project. For 2016 to 2017, these data include: observations of professional development and app design meetings; interviews with the assistant principals from each of the partnering schools and the professional developers; surveys of partner school teachers; programmatic data that documents app development, frequency of professional

development offered, teacher participation, etc. In subsequent years the evaluation will also include an analysis of academic data from participating schools and classroom observations. Findings from year one (September 1, 2016 to July 31, 2017) are reported below.

Project Scope and Work Completed

The scope of BBL's dissemination project for year one consisted of the completion of five major activities:

1. Purchase and provide iPads to both partner schools, with the prototype, *Lite* version of *iCountBetter* installed, updated with a portion of the "Counting" section added to the existing "Numeration" section.
2. Conduct initial, on-site training of Kindergarten, 1st and 2nd grade teachers at partner schools.
3. Initiate use of *iCountBetter* at partner schools, with regular teacher inter-visitations and support from BBL professional development (PD) staff.
4. Complete the design and programming of Stage 2 of *iCountBetter*, including field testing at BBL and both partner schools, with external evaluation input.
5. Develop and implement use of the website.

Overall, BBL completed their proposed scope of activities by the end of July, 2017.

- ✓ At the beginning of the spring 2017 semester, a total of 105 iPads and iPad accessories were purchased, installed with the initial, beta version of *iCountBetter*, as well as other educational software such as Montessori Numbers, and provided to the participating teachers at each of the partner schools. BBL has requested a budget adjustment in order to supply all of the 3rd grade classes at both partner schools with iPads, with the updated, viable version of *iCountBetter* installed, in order to positively affect third grade student performance on their first administration of the NY State Mathematics assessment in the spring of 2018.

- ✓ In October and November of 2016 BBL provided an initial professional development session to 29 K to 2nd grade teachers and administrators from CS 112 and PS 111 respectively. This session consisted of an orientation to the dissemination project, and introduced the teachers to the online learning software they would be trained to use. A feedback survey was conducted and all participants agreed that the orientation had provided an introduction to the project and helped them to understand it better. Their main question following the workshop was how to implement it in the classroom.
- ✓ From February through June, 2017, the participating teachers in the two partner schools received regular professional development on integrating online learning. Both schools were provided with three in-service sessions, and PS 111 also received an additional day of classroom visitation sessions or grade level group training. BBL surveyed the teachers' interests and comfort level for providing follow-up PD. There was variation, both in teachers' interests as well as PD priorities by the partner schools. In one school, teachers were less open to classroom visitations than the other, and neither school reported a compelling need for inter-visitations. The BBL PD team encountered some scheduling challenges when setting up individualized meetings and classroom visits with some of the teachers, which prevented them from conducting more classroom visits or arranging for any inter-visitations.
- ✓ The BBL iCountBetter design team consisted of two professional development administrators and one PD consultant, who has worked closely with the school since it started and knows its pedagogy well. The BBL professional development team spent a great deal of time throughout the first year of the grant to complete the design and programming of iCountBetter. After contracting the developers at the beginning of the school year, BBL spent the next several months introducing the developers to the school's pedagogy, how it was reflected in the current version of the iCountBetter app, and what the types of features they ultimately envisioned for the completed product. BBL contracted an additional app designer in December to provide further consultation on the design. In March 2017, BBL released version 2.0 of the app on the iPad store with half of stage 2 completed, making the newer version available to participating teachers. Throughout the spring the team continued to work with the designers and developers and, at the same time, obtained feedback from the teachers in the partnering schools on how iCountBetter could be improved. Beta version of 2.0.0 (8) was completed and released in August 2017. Due to the partner school feedback, in addition to delays in delivery of crucial design elements and assets by the developer, the completion of Stage 2 has been postponed until the fall of 2017, in order to allow for

signification enhancements – the incorporation of a completely revised navigation system, with a log-in and ability to gather student progress metrics, a year ahead of schedule.

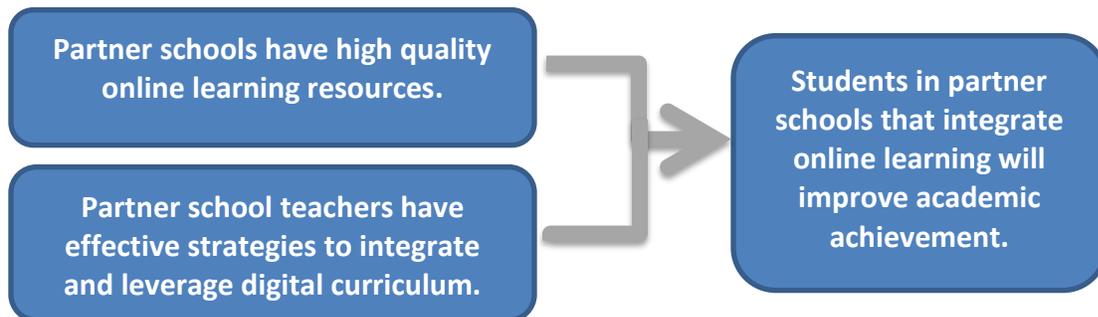
- ✓ BBL’s website was reconfigured to include webpages devoted entirely to the dissemination grant, with opportunities for the incorporation of partner school teachers’ feedback and suggestions, in place of automated metrics. All but one of the partner school teachers assented to the posting of their contributions. There are currently 13 posts on what teachers have learned, how they are using online learning, and the challenges they have faced.

Section II: Progress Toward Meeting Goals

Academic Achievement Goal

The overall goal of the BBL Charter School Dissemination Project is to increase student achievement in mathematics in 3rd and 4th grades in both partner schools. The measurable objective to determine if that goal has been met is that in school year 2017-2018, the second year of the grant period, the percentage of students in 3rd grade who achieve a level 3 or 4 on the New York State Mathematics Assessment, will exceed, by at least 5 points, the passing percentage rates achieved by their 3rd graders in the previous year, both at PS 111 and CS 112.

Since the timeline for this goal to be reached is next year, it cannot be evaluated during the first year of the grant. However, an examination of whether short-term, (i.e., year-one) program outcomes were met provides a sufficient basis for determining if the project is on track to attain its longer term (year two and three) student achievement goals. The year one outcomes leading to the overall goals are depicted below.



Outcome 1: Partner Schools Have High Quality Online Learning Resources

Significant progress has been made in attaining this outcome.

Over the first year of the project, BBL provided the partner schools with iPads and software for all participating teachers in grade K through 2. It is important to note that the iPads were loaded not only with iCountBetter, but with other educational software that the students could use. BBL carefully vetted the software to ensure that the format and content were of high quality and consistent with BBL's app and instructional approach. BBL's iCountBetter design team worked carefully, closely and constantly throughout the school year with the designers and developers to take the iCountBetter to the next level. Over the school year the input BBL elicited from the participating teachers proved valuable in informing the design features that would be included at subsequent stages. It also made teachers feel excited and invested that they had a say in how the design of the app.

The teachers are really excited about the idea they are helping to design the app. – Partner School A.P.

They understand that one of their roles is to help develop the app. They are excited about that. – BBL PD Provider

One of the challenges in designing iCountBetter has been ensuring that it reflects the educational philosophy of BBL. Based on the evaluator's observation of one design meeting between the BBL's PD team and the developer, how to translate some of BBL's instructional principles to the app requires a great deal of effort since it's not based on a typical reward and feedback system. One of the PD providers also commented that some teachers were not used to the design of the app or how it covered the math content, and there was some initial resistance.

There is a certain philosophy to the way the material is being taught... You are trying to insert a philosophy into a setting that doesn't have that philosophy. Particularly at 112 there was a lot of pushback, like the order of the numbering, and there is no reward or incentives. BBL PD Provider

While BBL salaried and contracted personnel are ensuring that the app provides students with an educational experience that mirrors the school's proven instructional approach to mathematics, it is premature to conclude the extent to which the partner school teachers will suspend judgment, based upon their own instructional background, and to see how effectively and efficiently it supports their students' learning. Once iCountBetter is fully developed, it will be interesting to see which features are ultimately kept, and how teachers respond to it.

At the end of the school year, the participating teachers completed a survey asking them whether they had used the digital learning software that had been provided to them. All of the 26 teachers who completed the survey reported that were satisfied with the digital resources they received, with 73 percent reporting they were “very satisfied.” Most of the teachers (21 out of 26) reported that they had used the BBL iCountBetter app over the school year. Slightly more (23 out of 26) had used the Montessori Numbers app. About half (13) of the teachers also mentioned several other apps that they had used including MyOn (5), Epic (7), Door 24 (2), and Go Math (1).

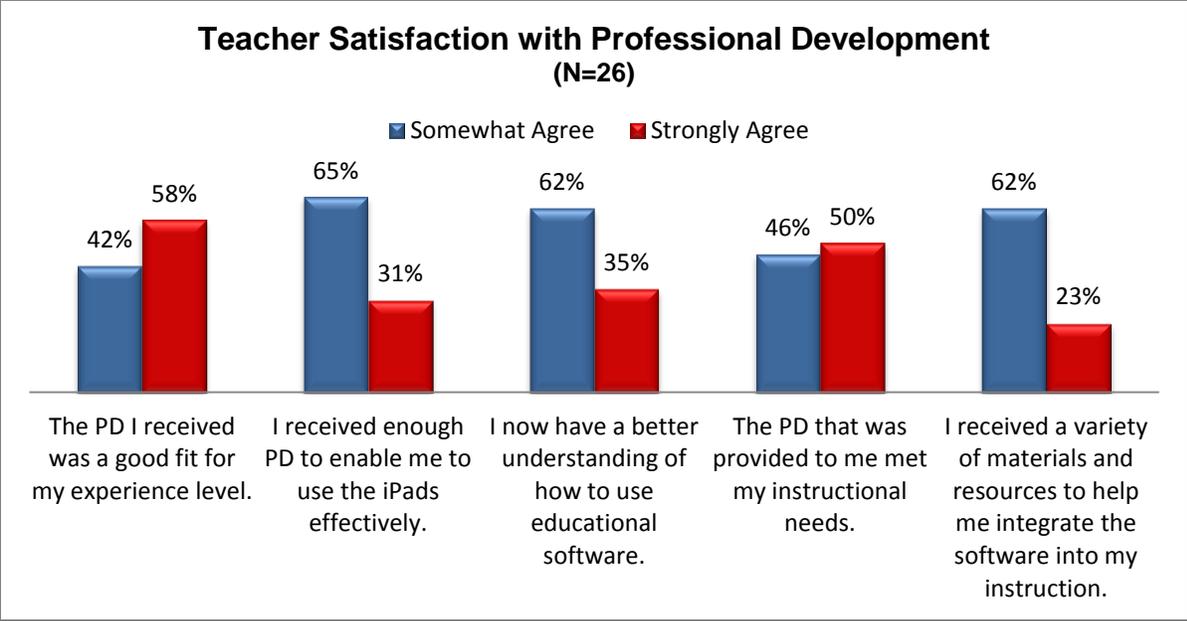
With regard to their rate of usage, 19 of the 26 teachers indicated that their students were using the iPads and software on a regular basis, and 6 teachers reported that their students have tried out software. One teacher, recently appointed to her position, reported that she had not yet been trained to use the iPad and apps.

Overall, teachers made good use of the software provided to them through the dissemination grant. Although the focus of the dissemination grant is math academic achievement, teachers also received and learned to use digital resources for ELA. By providing teachers with a variety of educational software, they became more expert users and selected resources that were most appropriate for their students. It also increased their awareness of the functions, features, and formats of educational software so that they were able to provide better informed input to BBL about what they would like to see in the ultimate design of the iCountBetter app.

Outcome 2: Partner School Teachers Have Effective Strategies to Integrate and Leverage Digital Curriculum

Significant progress has been made in attaining this outcome.

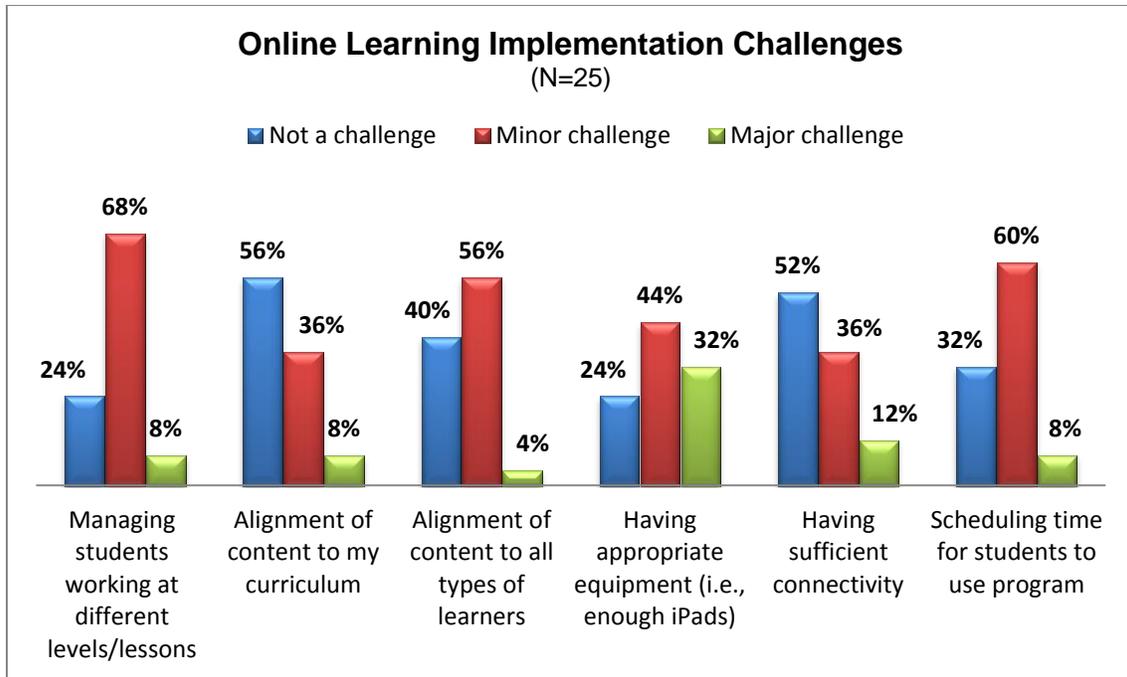
At the end of the school year 26 participating teachers from the partnering schools completed a survey asking them about the professional development that they had received through the BBL Charter School Dissemination Project. (See the following section, “Early Impacts of the Implementation of the Partnership,” for full details on the contents and results of the survey.)



All of the teachers reported that the PD was a good fit for their level of experience with the technology. Nearly all (96%) the teachers also agreed that they received enough PD to use the iPads effectively, that they had a better understanding of how to use the educational software, and that the PD met their instructional needs. Most (85 percent) agreed that they had received a variety of resources to help them integrate the software into their instruction.

Overall, teachers had very positive responses to the PD they received. Nearly all (96 percent) reported that they were satisfied with the PD with 58 percent indicating they were “very satisfied”; and half the teachers rated it as “good” while the other half as “excellent”.

Implementing online learning requires teachers to use different instructional content, in new ways, in a classroom context that may not always support its effective usage. Therefore it is important to identify if teachers experienced challenges in using the new resources. The most frequent challenges mentioned by 19 of the 25 teachers was managing students who were working at different levels, and having enough equipment. About a two-thirds (17) of the teachers felt scheduling time for students to use the online learning programs was a challenge. Fifteen of the 25 teachers indicated that aligning the content of the software to a spectrum of learners was a challenge. Less than half the teachers identified aligning the software content to their curriculum and having enough connectivity as challenges.



When asked what changes they would like to see in the program for the next year, 17 of the 26 teachers offered suggestions. The most common response involved having more PD time, by building on what they had already learned, starting earlier (i.e., in September) in the school year, having it more often, and having more classroom visits.

More time is needed to practice with our wonderful trainer.

Several teachers mentioned that they would like to have software specific PD, as well as PD on other apps that were not covered the past school year. Teachers also mentioned that they would like to receive more iPads and have the program expand to the third grade. In terms of classroom visitations, two teachers had experiences that contradicted one another. One teacher appreciated the classroom visits and the other mentioned that this type of PD was not available.

Instructor was excellent, however no classroom support with student to transfer knowledge.

The presenters were always willing to answer questions and also do classroom visits if asked.

As part of the end-of-year interview, the Assistant Principals of each partnering school were also asked if they had faced any implementation challenges the past year. Both the APs mentioned that obstacles were minimal, though scheduling professional development for teachers was mentioned by both. One AP also mentioned that not having a specific implementation plan laid out from the outset was somewhat of a challenge, but she expected that would be addressed next year. The other AP also mentioned that not having the

professional developer on site to address the teachers' questions could be a challenge even though teachers could contact the PD providers by email.

I think some of the challenges we had initially were identifying those times to regularly meet and identifying the next steps for each month. This year everything happened organically. It was more exploratory.

If I had to pick something, it would be time and scheduling. Also if teachers had questions in the moment they would have to wait until they could send an email.

Both APs were excited about continuing and expanding the project over the next school year. They want to be able to support teachers from the beginning of the year in order to ensure that there is consistent usage of the resources across classrooms. Both APs were both interested in incorporating more measurement of both usage and student progress as part of the project for next year.

Next year everyone will have it. We talked about supporting 3rd graders. They get nervous about being tested. It would be good to have a way they can practice. So we want to continue with K to 2 and add 3rd. We want to have it consistently so teachers are doing the same thing. I want to measure that next year.

I want to continue it with the teachers and potentially expand it into 3rd grade. I'm excited about that... For next year, we want to have a plan laid out. We want everyone to be at a particular point at a particular date. So we want to identify what those goals are for the year and for each month and see what we are going to do to get them there. If the teachers were utilizing the iPads, how are we deliberately tracking how that worked? We want to move out of the exploring stage and be more deliberate.

An interview with the BBL's PD provider echoed some of the same themes as the teachers and APs. She also felt that scheduling the PD was a major challenge. However, she felt that it was largely due to the lack of responsiveness from some of the teachers and AP, particularly in one school. There appeared to be a lack of organization around implementing one of the PD sessions.

Both Ted and I tried to reach out to them. Then when I met with them it was small groups 30 minutes at a time. The time prior, it was a one on one chat. We were supposed to have another session and nobody showed up. The AP didn't show. They teachers did not come to the right room. Ted was there at the other sessions. I only had those two days with them. The positive outcome was that I had a chance to talk to each one of them and get an idea of what they know, what they were interested in.

Despite the glitches experienced during the first year, the BBL PD staff, teachers and APs from the partnering schools all felt eager and hopeful about implementing the second year of the

grant and building upon year one. Furthermore, while BBL would have preferred to provide more individualized and small group PD, the teachers, APs, and BBL staff developer were able to identify early impacts of the partnership on the schools.

Early Impacts of the Implementation of Partnership

As mentioned above, to determine the impact of the implementation of the partnership to date, teachers from the two partner schools were asked to complete an end-of-year teacher survey. The survey addressed the extent to which teachers developed new skills as a result of the dissemination project, and what type of impact it has had on their teaching role.

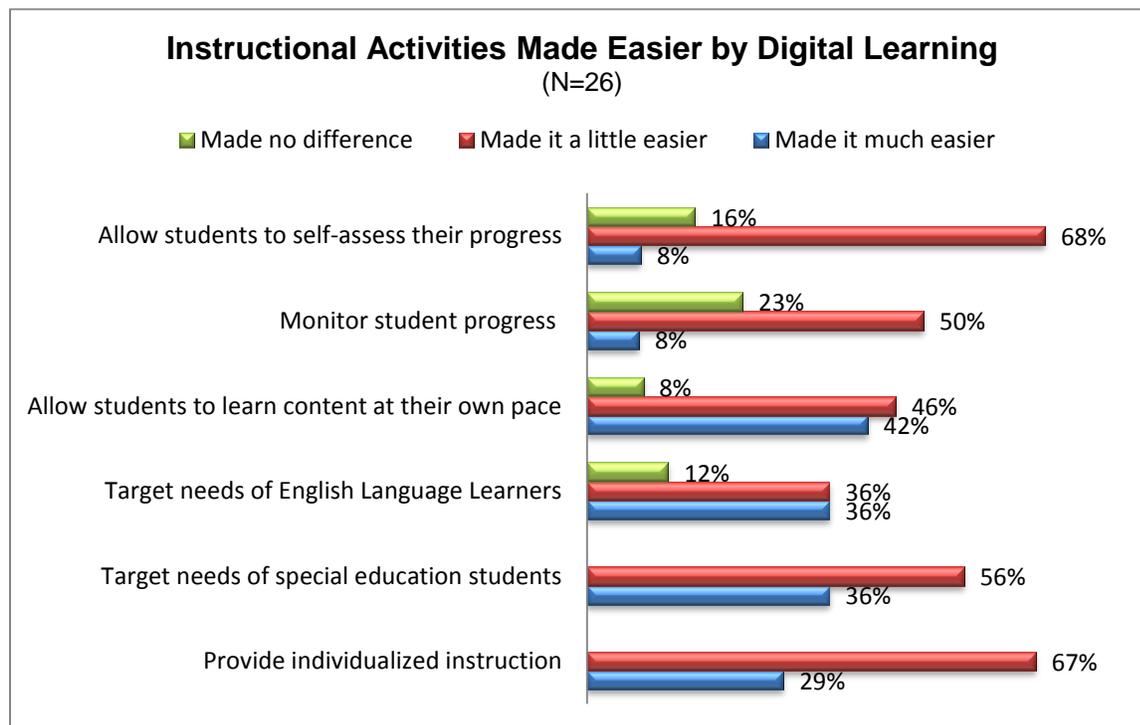
A total of 26 teachers, 17 from PS 111 and 9 from CS 112, completed the end-of-year Charter School Dissemination Grant Teacher Feedback Survey. The teachers had taught in grades K, 1 and 2 over the past school year.

The first set of questions focused on the extent to which the teachers have started adopting online learning, in general, and started using the iCountBetter app, in particular. Teachers were asked to rate their level of competency in using iPads and educational software prior to the project and at the end on a 4-point scale: non-user, beginner, adapter, or expert. According to the teachers, over the past school year they increased their competencies to use iPads and educational software as part of their instructional practice. Prior to the project, about half the teachers rated themselves as a “non-user” (2) or “beginner” (11), while the other half rated themselves as “adapter” (12) and “expert” (1). The average rating was 2.5 (between a beginner and adapter). At the end of the school year, teachers reported that their competencies increased. All but three teachers rated themselves in the adapter to expert level. Teachers’ average rating was a 3.0.

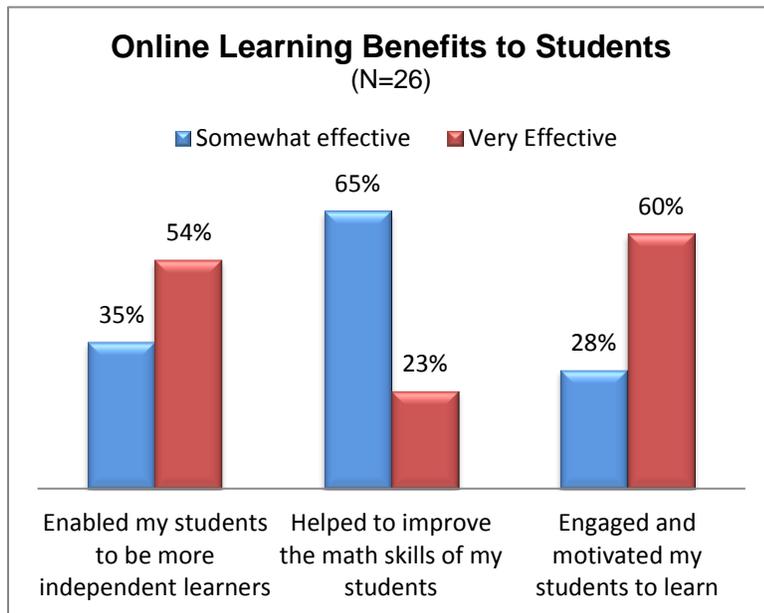
As teachers began to receive professional development, an increase in the regular use of the iPad software in the classroom was evident. In April, teachers completed a survey asking them about how frequently they were using the iPad software. At that time, only one teacher reported that most students were using the software nearly every day (i.e., 4 or 5 times a week); and two teachers reported that some students were using it nearly every day. By June, two teachers reported all of their students used the software nearly every day; four teachers reported that most students used the software nearly every day; and 7 teachers reported that some students used the software nearly every day. On average, the frequency of usage increased for all students from once to twice a week; for most students from 2 to 3 times a week; and for some students from 3 to 3½ times a week, between April and June.

Frequency of iPad Software Use between April and June 2017														
	Once		Twice		3 times		4 times		5 times		Total		Weighted Average	
	Apr	Jun	Apr	Jun	Apr	Jun	Apr	Jun	Apr	Jun	Apr	Jun	Apr	Jun
All students	11	7	3	3	1	3	0	1	0	1	15	15	1.3	2.1
Most students	3	2	8	5	1	7	1	2	0	2	13	18	2.0	2.8
Some students	1	2	3	0	4	4	0	3	2	4	10	13	2.9	3.5

Teachers were also asked whether their use of the iPads and software made instruction easier or harder for them in specific situations (as presented in the graph below). Nearly all of the teachers reported that the digital learning made it easier for them to provide individualized instruction to their students (25 of 26), helped them to target the needs of student education students (24 of 26), and allowed students to learn at their own pace (23 of 26). Most teachers thought the apps made it easier for them to allow students to self-assess their progress (20 of 26), and helped them to target the needs of English language learners (19 of 26). A little more than half (15 of 26) the teachers felt that the apps made it easier to monitor student progress.



Teachers were asked to what extent they felt that using the iPads and software had benefitted their students. Nearly all the teachers (23 of 26) felt that the digital learning resources were effective in helping students to improve their math skills, engaging and motivating them to learn, and helping them to be more independent learners.



In addition to conducting a survey with teachers, the evaluator interviewed each of the assistant principals (APs) of the partnering schools and the BBL PD consultant in order to obtain their perspective on the impact the dissemination project was having on the teachers. The APs had been designated as the primary school liaison for the dissemination project and had been most involved over the school year.

Both APs reported that the partnership was effectively supporting their schools goals to improve students' math achievement. For one AP, the online learning implementation supported their school's goals by helping them to implement more group instruction and by providing them with opportunities to learn from one another.

The biggest piece was getting support for teachers in providing small group instruction... What I like about the program is that we are collaborating across schools. It will give us a common language about the instructional practices we are using and it will help to make our teachers stronger, like unpacking student data and increasing small group learning. It lets our teachers know that we're not the only school that's asking them to do these things.

The AP at the second partner school also felt that the project was supporting the school and the district's learning goals for students. She specifically mentioned that they were looking for engaging ways to get younger students to practice foundational math skills in order to prevent learning gaps appearing later.

We are trying to find creative ways to engage students. The students love technology. We thought this was a perfect focus for the inquiry work we were doing. It fit with what the teachers were doing to supplement the curriculum and get the students excited

about math... This year we looked at the scores for students in 3rd through 5th grade, then we looked at students in Kindergarten and noticed that they had the same foundational issues. So we are using the iPads as practice. They think it's a game. It's reinforcing the students learning base 10.

The BBL PD consultant also felt that the use of the software was contributing to academic improvement, especially in ELA, since the teachers were already somewhat familiar with the apps.

One of the big ways [the project is supporting the schools' instructional strategies] is the MyOn app. The teachers were already using it. So it was pretty seamless. Also through the Montessori Numbers, especially in K and 1st, because they were already teaching those concepts, especially the special needs teachers. They used it for review and practice. There is another reading app called Epic. A handful of teachers ran with that. It allows students to read on it. They were excited about it.

The APs also felt that integrating the iPad software would increase teachers' and students' technology use, since it was so accessible. Although there are other sources of educational technology in the schools, they are not as consistently used by the teachers.

The teachers had Smartboards in their classrooms, but didn't use them consistently. The students know how to use technology. We know that students use technology, so if we're meeting them where they are, we have to change with them to get them interested. The parents are working, so they are not always around to support their students. So by practicing in school they can get more aware of practicing on other apps on their own.

My teachers are increasing the student usage and increasing time students are using the applications... The classrooms have desktops but the iPads are much easier to use. Students can use the apps without having to be logged in by the teachers so it increases their usage. There are schoolwide resources the teacher can use with the computers, but the teachers struggle with getting them on, so they don't use them.

Both APs reported impacts of the partnership similar to those that the teachers reported in their survey responses. The APs both remarked that they had noticed an increase in teachers' confidence in using instructional technology, and, as a result, the frequency of their use.

The teachers have a higher comfort level with the technology. My staff shy away from using technology in class. I feel our use of technology has increased... Everyone has had their chance to utilize the iPads. Some have used it more than others.

The BBL PD consultant also commented that she saw an increase in teachers' confidence, their frequency of use, and their intentionality of how they used it for particular instructional purposes.

At the beginning the iPad was used more as an incentive or reward. Teachers used it once in a while or randomly during center work. They would ask students to start with one app, but students would go all over because the teachers didn't know how to use the iPad themselves. So it was random, sporadic and not integrated into the curriculum... By the end of the year, they were incorporating the iPads regularly during center work for ELA and math. They understood the features of the apps better, so could integrate them more. They had more command over how they were being used, so were more directive in their instruction and how they used it. And they were excited to learn more.

The APs also reported that the students appeared to be benefiting from the technology use, although they presently have only anecdotal observations on which to base their conclusions.

The second graders you can see progress... like understanding parts of a whole. We have students who have issues with 1 to 1 correspondence. They may not be willing to do the same practice during extended day, so we give them the iPads as different practice... After the first year I saw how our students showed their independence. Students could go to the iPad, pick a program and use it. That was important to me. The students could understand and use the app.

Right now I wouldn't be able to say what the impact has been on student achievement. We haven't been able to track that. We haven't been able to use the tracking features in the apps to track student progress... The applications that the teachers were using most frequently – the Montessori apps, allowed the students to practice concepts independently, especially the struggling students. The teachers targeted the lowest tier student and gave them the Montessori numbers apps. They would be able to sit with the iPad and practice on the app. I can say that they have used it and so we would expect that it benefitted students, but we were not deliberately tracking the data.

Both APs commented that the partnership has been beneficial to their schools since it has supported the types of instructional changes that they have been trying to implement independently. Having another school support their efforts is beneficial.

Aside from using the app and the children getting the practice, it has helped to support the move we were making building-wise last year. It did help our lower grade teachers to understand that the moves we were making for our upper grade students had to be supported by the lower grades. The teachers were grateful for that.

I think it has gone really well. We've had four to five opportunities at the administrative level to all talk about how to make the iPads work.

Section III: Conclusions

Information obtained from teachers, APs, and BBL's PD staff all indicate that BBL has made significant progress toward reaching their overall goals for their Dissemination Project. The iCountBetter app has undergone further development and some features will be implemented ahead of schedule. Teachers' contribution has had an impact on how the app is ultimately designed. The teachers responded very favorably to the PD that they received and are looking forward to building on what they have learned. Although more sessions of PD were originally envisioned, there are already signs that the PD is having an impact on teachers' instruction based upon their self-reports, as well as observations made by the APs and BBL's PD consultant.

Approaching next year, teachers and the APs of the partnering schools made suggestions for changes. Those include expanding the project to cover the 3rd grade, having a well-defined project plan, and the tracking of PD frequency as well as the use of the iPads for instruction. Such changes are being planned for the next school year.