Initial Submission	
Plan Resubmitted	
ISBE Approved	

Contact Information

District Information

District Name:	WHEELING CCSD 21	District Address:	999 W DUNDEE RD
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* Required information - Name and information of the district contact person who is able to answer questions concerning the District Technology Plan.

1. Please enter District Technology Plan Coordinator Information below

Superintendent:	Dr. Kathleen T Hyland	Superintendent Email:	kate.hyland@ccsd21.org
DTP Contact Name*:	Dr. Jason Klein	DTP Contact Email*:	jason.klein@ccsd21.org
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2. Mid-course Correction - Complete this line when this is the yearly review of your district's approved 3-year technology plan and there ARE major changes to the plan. (Clarification of "major" changes--During the annual evaluation process if the district determines it isn't making progress toward goals or strategies or a new development or opportunity arises, the district will need to revise their technology plan).

During the course of annual review for e-Rate this plan was found to be in need of mid-course correction on

District Data - Report Card Analysis

Summary - What do the District Report Card data tell you about student performance in your district? If appropriate, the district will consider grade-level and subgroup performance.

The performance of students across Community Consolidated School District 21 assessments has remained very consistent over the past number of years. School District 21 schools and students continue to perform well across a wide range on state assessments, including both the Illinois Standards Achievement Tests (ISATs) and ACCESS for ELLs. Due to the change in cut scores by the Illinois State Board of Education with the 2013 assessment, it does appear that there was recently a major drop in performance, but when scores are compared over multiple years against either the new/current cut scores or the previous set of cut scores, the consistency in performance of School District 21 students does become evident.

In recent years, there have been individual students and schools that have performed at very high levels, with two schools (Longfellow and Riley Elementary Schools) being recognized as Illinois Honor Roll Schools by State Superintendent Dr. Chris Koch last year. At the same time, the ISATs continue to be given to nearly all students and in English only. Despite the set of Linguistic Modifications available as accommodations for students who are learning English, the very fact that a high-stakes assessment is being given to these students in a language in which they are not proficient does make meaningful analysis difficult. Nevertheless, the original summary statement--that performance has been consistent over time--is true for all students, including School District 21's students who are learning English.

At the District-level, the sub-groups of students within School District 21 that have been identified by the State of Illinois as not meeting standards in Reading include:

- "White" students
- "Black" students
- "Hispanic" students
- Students with "Two or More Races"
- "Limited English Proficient" (LEP) students
- "Students with Disabilities"
- "Economically Disadvantaged" students

At the District-level, the sub-groups of students within School District 21 that have been identified by the State of Illinois as not meeting standards in Mathematics include:

- "White" students
- "Hispanic" students
- "Limited English Proficient" (LEP) students
- "Students with Disabilities"

In keeping with the theme of consistent performance on state assessments, students have continually demonstrated an even higher level of performance on Mathematics assessments than on Reading

assessments.

Additionally, on the new growth metric that the Illinois State Board of Education has launched, in both Reading and Mathematics, School District 21 performs slightly better than the State's "average growth value". Students in School District 21 are growing about as one might expect with a positive growth trend, though there is certainly room for continued improvement with regards to student growth.

While reading, and more broadly, literacy, has been a focus of School District 21, as these results initially suggest, it will need to continue to be a District-focus for professional development and improving student learning moving forward.

Performance of students who are learning English

Approximately 36% of the students in School District 21 are in the Bilingual/ESL program currently and are learning English. In addition to that, 24% of current students were at one time classified as an English Language Learner. Given that 60% of students in School District 21 are either currently learning English or are multilingual, examining the performance of English language learners on assessments is critical to ensure that the growth of these students in English is progressing but also to ensure that they are learning what is expected with regards to concepts, content, and skills in literacy, mathematics, science, and social science.

The percentage of students who are learning English in School District 21 **and** who meet or exceed standards on ISAT Reading and Mathematics assessments is meaningfully and consistently lower than the percentage of students who meet or exceed on ISATs and are not classified as English language learners as presented in the table below. Of course, given that the assessment is completely written in English and that even the Mathematics ISAT is a language-rich exam, this should be expected.

2013 ISAT Performance-LEP Percent Meeting/Exceeding

2012-2013 Grade Level	% Meeting/Exceeding - Reading	% Meeting/Exceeding - Mathematics
3	11.3	27.0
4	7.7	20.9
5	2.7	15.8
6	3.3	12.5
7	3.8	14.0
8	8.5	21.9

While one would expect lower performance on the part of English language learners on the Reading test in English, which is an entirely language-based assessment, it should be noted that a far greater percentage of School District 21 English language learners met or exceeded standards on the Mathematics assessment, which is also a very language-heavy assessment.

Nevertheless, at all grade levels, very few students learning English are able to meet or exceed the performance standards on the ISAT Reading or Math assessments. Again, it is important to note that, despite the Linguistic Modifications that are in place, these assessments are given in English. Given the overall performance of School District 21 students on state assessments and the high percentage of students who are learning English that are participating in these assessments, there is an unsurprisingly significant gap in results between English Proficient students and students who are learning English on these assessments that have been written in and are being taken in English.

Most importantly, while this data does show that the performance of our English language learners includes many who are not meeting or exceeding standards at this time on ISATs, School District 21 also has evidence of the success of its English language learners over the long-term. From among the eighth graders in 2012-2013 who were in the Bilingual/ESL Program as younger students and had since exited, approximately 95% of those students met or exceeded standards on the 2013 ISATs in both Reading and Mathematics based on the 2012 ISAT cut scores.

Performance of Students with Disabilities

One might expect that students with identified disabilities that impact their learning would not perform as well on Reading and Mathematics performance assessments, yet the explicit legislative and educational goal of the instructional programs of these students is to offer support services that allow them to achieve at the same high levels as their peers who do not have such disabilities identified. In examining the performance of students with disabilities as a group over time, the same pattern of differences that exist in Reading versus in Math among English language learners are apparent, though given the complexity of all of the different individual disabilities that students are identified as having that impact their learning, the reasons for these differences cannot as easily be assigned to language proficiency and the language of the assessment.

Like English language learners, there is a gap between the performance of students with disabilities and students without disabilities. Again, this may be an obvious expectation, but the goal for the programs serving students with Individual Education Plans is to provide compensatory services that will allow them to meet the same standards that are expected of and for all students.

The tables below provide a comparative snapshot of the performance of students with disabilities (IEP) in School District 21 against the performance of students without disabilities (non-IEP).

2013 ISAT Performance-Students with Disabilities (IEP) Percent Meeting/Exceeding vs. Students without Disabilities - Reading

2012-2013 Grade Level	IEP Students - % Meeting/Exceeding	Non-IEP Students - % Meeting/Exceeding
3	12.2	52.7
4	10.0	55.1
5	10.8	53.9
6	9.9	57.8
7	8.6	62.4
8	19.7	68.8

2013 ISAT Performance-Students with Disabilities (IEP) Percent Meeting/Exceeding vs. Students without Disabilities - Mathematics

2012-2013 Grade Level	IEP Students - % Meeting/Exceeding	Non-IEP Students - % Meeting/Exceeding
3	32.7	65.9
4	24.1	65.3
5	15.4	62.1
6	21.1	65.4
7	27.1	72.6
8	23.7	75.0

Like with the data regarding School District 21's English language learners, this data has been consistent over time. Also similar between both data sets is that the percentages of students meeting and exceeding is higher on Mathematics than on Literacy. Of course, it is important to remember that these are not mutually exclusive groups, either; A student can have an IEP *and* be an English language learner, and like with the population of students overall, many of the students with disabilities are learning English or were previously Bilingual/ESL students. As a result, for those students, their test results would be additionally impacted by the fact that these assessments are written and given entirely in English.

Two key trends that have previously been cited in this summary, continue to emerge from this data for our students with disabilities:

- This data has been relatively consistent over time.
- Students in School District 21 perform far better on the Mathematics assessments than on the Reading assessments.

Student Demographic Data

As mentioned earlier in this analysis, School District 21 students are incredibly diverse--from race and ethnicity to socioeconomic status to cultural background. A brief snapshot of racial and ethnic data is included below.

Racial/Ethnic Student Composition

Race/Ethnicity	% of CCSD21 Students Identified
White	35.5
Black	1.8
Hispanic	52.6
Asian	7.8
Native Hawaiian/Pacific Islander	0.1
American Indian	0.6
Two or More Races	1.5

An even more critical educational-related demographic factor is the percentage of students who are characterized as being "low income," based on their family's qualification for free or reduced meals at school. The Low Income percentage in School District 21 during the 2012-2013 school year was 58.3%.

Analysis - What areas of strength are indicated? What areas of weakness, if any, are indicated by these data? What factors are likely to have contributed to these results? Consider both external and internal factors to the school that can be influenced or improved by the district.

Strengths

Areas of strength that are identifiable from the above data include the performance of all students on ISAT Mathematics assessments and the performance of middle school students who have exited the Bilingual/ESL Program earlier in their scholastic careers in School District 21.

Performance on ISAT Mathematics assessments is fairly high, even though the assessment is given in English and is a language-rich assessment (i.e., English text as part of multiple choice problems, free response problems requiring written answers in English) and many of our students are English language learners. Among our students with disabilities, who meet or exceed standards in much smaller percentages on ISATs, they perform significantly better in Mathematics than they do in Reading.

While the performance of English language learners on ISATs demonstrates that many of our students are not meeting or exceeding standards, when we conduct a more detailed examination of their performance over time, we find that this program is working very, very well. Based on 2012 ISAT cut scores, which are still best for making historical comparisons, approximately 95% of our eighth graders who had previously exited the Bilingual/ESL Programs were meeting or exceeding standards on ISATs.

Weaknesses

Based on the data from State assessments, areas of weakness that require further improvement include the success of all students with reading and literacy as well as closing the gap in performance between our students with disabilities and students without disabilities.

It is impossible to disconnect the facts that the ISAT Reading assessment is exclusively given in English and many of our students are English language learners. Nevertheless, the ISAT Reading data also reveals significant room for improvement and growth in the performance of School District 21 students. In the most extreme case from this analysis, there is the performance of students with disabilities on the ISAT Reading assessments--only approximately 10% of these students are meeting or exceeding standards. While there are certainly students who perform very well in literacy as measured by the ISAT Reading assessment, the overall performance levels exhibited on the ISAT Reading assessment demonstrate that it is an area in which there will need to be a significant continued and long-term focus for our students.

The other major weakness that is identifiable from the data collected by the State of Illinois relates to the performance of students with disabilities. On a positive note, it is clear from this data that students with Individual Education Plans (IEPs) in School District 21 are "discrepant from their peers" in their performance on Reading and Mathematics assessments, it is also clear that the compensatory services that they are receiving are not *closing the achievement gap* that they are designed to close. Over the past three years, one of School District 21's major Professional Learning Community Areas of Focus has been *Inclusionary Practices*. While the intention of this focus is to improving learning for all students, within it, there has been a real effort to improve instruction, particularly via effective co-teaching, for our students with disabilities. The evidence suggests that, at this time, this focus needs to continue as the weakness evidenced by the achievement gap between students with disabilities and students without disabilities persists.

Factors Contributing to these Results

Among the factors contributing to both the strengths and weaknesses identified here are the following:

- Professional Development
- Curriculum
- Disabilities that impact learning
- Complexities of learning English
- Income and its educational impact

Professional Development

The strengths identified here related to the overall performance on ISAT Mathematics assessments and to the long-term performance of students who were once in School District 21's Bilingual/ESL Programs are, in both cases, a likely result of the focus on professional development for staff. For example, over many years, teachers throughout School District 21, including those that are Bilingual, ESL, and ELL teachers as well as other teachers, have participated in a range of structured year-long professional development activities designed to improve instruction for English language learners. Such activities have been coordinated by School District 21's Bilingual/ESL Program leaders and have also reached out to include highly respected organizations like the Illinois Resource Center in nearby Elk Grove Village and Washington D.C.'s Center for Applied Linguistics (CAL). Similarly, the high-level performance of School District 21 students on ISAT Mathematics assessments is likely a result of over a decade's worth of ongoing mathematics professional development for all teachers across all grade levels. Throughout this time period, teachers have come together to plan for differentiated student learning on a unit-by-unit basis. At the same time, such professional development has also focused on ensuring that students are actively engaged in discovering mathematics for themselves through guided inquiry and reflection on a daily basis. Strong, sustained professional development over a long period of time with hundreds and hundreds of teachers is tied directly to these successes and is likely the key for additional successes.

Curriculum

Another key factor underlying both the strengths and weaknesses listed above is School District 21's Concept-Based Curriculum:
http://www.ccsd21.org/curriclearning/curriculum/index.html
This curriculum applies to all students and is common for all teachers, and that is a factor in the overall high-level performance on ISAT Mathematics assessments. At the same time, the overall high level of performance for students not in identified groups with specific unique learning needs in English, such as English language learners and students with disabilities, demonstrates that the core curriculum and related instructional practices work effectively for most students in School District 21.

Disabilities that impact learning

Students who have met the criteria to qualify for an Individual Education Plan (IEP) are already typically discrepant from their peers in their performance. As one might expect based on that, these students do not perform as well on ISAT Reading and ISAT Mathematics assessments as their classmates who do not have IEPs. These students have disabilities that have qualified them for an IEP. These same disabilities contribute to their lower level of performance on these assessments than their peers without IEPs. Additionally, while gains have certainly been made in the last three years with a district-wide focus on effective co-teaching, the under-utilization of effective inclusionary practices may have decreased students' access to the core curriculum. With a continued focus on improvements in using effective strategies in the classroom, gains in learning and achievement will be made by students with disabilities and the additional compensatory services that they are receiving will close the achievement gap between students with disabilities and those without disabilities.

Complexities of learning English

The performance of English language learners in School District 21 is lower than that of their English proficient peers on the ISAT assessments. Of course, the ISATs are given only in English, and while

there are "Linguistic Modifications" that are allowed by the State, these are limited when the test is still fundamentally inaccessible or only accessible in a limited fashion to students who are learning English. Due to the assessment tools themselves, important questions exist as to exactly how educators ought to use ISAT data to inform the instruction of English language learners.

Income and its educational impact

Over the past three years, the poverty rate in School District 21 has continued to climb. During the 2012-2013 school year, over 58% of School District 21 students were listed as low income. Additionally, homelessness in School District 21 has also continued to climb among students and their families during this time period. These income factors have a well-documented impact on student performance on standardized assessments, such as ISATs.

Conclusions - What do these factors imply for next steps in technology planning?

Based on the above analysis of student assessment date from the ISAT Reading and Mathematics assessments, engaging all students in School District 21 in high-level, personalized reading instruction with real reading materials in the context of authentic learning units will improve their reading and is also likely to improve the achievement of students in other academic areas, including Mathematics, Science, and Social Science. In order to provide learning opportunities for students to become better readers, the following elements are necessary:

- ensure that students and staff have access to and know how to access a wide variety of high-level reading resources at varied reading levels that are directly related to the concepts, content, and skills in the School District 21 Curriculum
- professional development to support staff members with the identification, evaluation, and use of the aforementioned high-level and varied reading resources with all students in the context of differentiated, authentic learning units of study

District Data – Local Assessments

Summary - What do the Local Assessment data tell you about student performance in your district?. If appropriate, the district will consider grade-level and subgroup performance.

Data Sources

In addition to the analysis of data from the Illinois State Achievement Tests (ISATs) that was included in the previous section, other data was also collected and used in the development of this Technology Plan. Data collected included:

- NWEA Measures of Academic Progress CCSD21 student assessment data
- Aprenda CCSD21 student assessment data
- School District 21 Computer, Internet, and Smartphone Parent Survey data
- School District 21 Technology Plan Staff Survey data
- School District 21 Technology Plan Student Survey data

NWEA Measures of Academic Progress CCSD21 student assessment data

School District 21 assesses many of its students in grades 2-8 annually each spring (April-May) in Reading and Mathematics using the Northwest Evaluation Association's (NWEA) Measures of Academic Progress (MAP) computer-based assessments. The assessment is given to all students who are English Proficient as well as to Tier C English language learners in grades 2-8. Data is used to measure District Goals and in conjunction with State and classroom assessment data by School Improvement Teams and Grade Level Teams to monitor student learning and adjust instruction and programming. The data used is from assessments given in April-May 2013.

Aprenda CCSD21 student assessment data

Spanish-speaking students in grades 3-8 who are in the Spanish Bilingual Program and have been identified as Tier A or Tier B students (ACCESS for ELLs English language proficiency tiers) are assessed in Reading and Mathematics using Pearson's Aprenda assessment. Data is used to measure District Goals and in conjunction with State and classroom assessment data by School Improvement Teams and Grade Level Teams to monitor student learning and adjust instruction and programming. The data used is from assessments given in April 2013.

School District 21 Computer, Internet, and Smartphone Parent Survey data

All School District 21 parents received a confidential five-question telephone survey in either English or Spanish inquiring about whether they have a computer at home and Internet access at home. If they answered in the affirmative regarding Internet access at home, the survey asked who their Internet Service Provider was in an effort to gauge the connection speed of our families' Internet connections. Finally, the survey also asked whether an adult in the home and whether a child under the age of 15 in the home had smartphones, which were defined for families as phones that could access the web. The response rate from this survey was tremendous with nearly 2000 responses, including approximately 700 responses from the Spanish survey. Responses cut across all grade levels as well as geographically across the District, yielding highly valid and reliable data. (January 2014)

School District 21 Technology Plan Staff Survey data

On previous Technology Plans, School District 21 has utilized survey tools developed or recommended by the State of Illinois for students and staff members, including the use of the Illinois Data Portal Technology Plan survey during the two previous Technology Plan processes in 2008 and 2011. For this Technology Plan, School District 21 opted to develop its own comprehensive survey in order to

best balance capturing information comparable to previous Technology Plan surveys while also being to explore in detail the realities and perceptions of students and staff members today in School District 21 given what is currently taking place in schools and classrooms. This anonymous 80-question survey was available online to all staff via email. Staff members had four weeks during which they could complete the survey and were provided the link via email on multiple occasions. Each staff member was only able to complete the survey one time. 367 staff members from across job types and schools (including the School District 21 Administration Center) participated in the survey resulting in highly valid and reliable data. (December 2013-January 2014)

School District 21 Technology Plan Student Survey data

On previous Technology Plans, School District 21 has utilized survey tools developed or recommended by the State of Illinois for students and staff members, including the use of the Illinois Data Portal Technology Plan survey during the two previous Technology Plan processes in 2008 and 2011. For this Technology Plan, School District 21 opted to develop its own comprehensive survey in order to best balance capturing information comparable to previous Technology Plan surveys while also being to explore in detail the realities and perceptions of students and staff members today in School District 21 given what is currently taking place in schools and classrooms. This confidential 54-question survey was available online to seventh and eighth grade students in English and Spanish. Students were given opportunities by their teachers to take the survey in a structured fashion during the school day, though some students did the survey independently, including outside the school day. Students completed the survey on their Chromebooks, and students were able to select the language in which they completed the survey. Each student was only able to complete the survey one time. Approximately 800 students from across School District 21's three middle schools participated in the survey resulting in highly valid and reliable data. (January 2014)

Data Conclusions

As we have done in previous School District 21 Technology Plans in 2008 and 2011, we were able to examine the data from the above range of sources individually as well as in more complex ways. For example, in the cases of the Student Assessment data and the Parent Survey data, we were able to make connections as the data was collected confidentially and not anonymously. Therefore, we could connect the responses of parents with the performance of their children on assessments like NWEA MAP and Aprenda. Likewise, the Student and Staff Surveys were designed from the start to provide comparative data, and as a result, we utilized those data sets in conjunction with one another. These combinations of data from different sources resulted in a far more high-level analysis than might have otherwise taken place. Below, we have listed each of our major conclusions, in turn, along with supporting data.

Conclusion - Expected differences in use exist between middle schools and elementary schools.

When examining how frequently different technologies are used in the classroom, middle school staff members cited a far higher frequency of use than did elementary school staff members. Given that during the 2013-2014 school year, School District 21's middle schools have moved from only having two shared computer labs per school to a complete 1:1 environment with each student possessing his or her own Chromebook, this difference is understandable. At this time, elementary schools have two computer labs available to them and very few additional computers beyond those. The table below represents some of the differences in frequency of use among particular technology tools by students at the elementary school level versus at the middle school level. Interesting, middle school students (right-most column) tended to state that they used the tools even more frequently than their teachers suggested they did, thereby demonstrating a certain level of student independence with using the Chromebooks even in their opening months of use.

Frequency of use of specific technology tools by students-Elementary School Staff and Middle School Staff and Middle School Students

Technology Tool	Daily/Weekly Use-Elementary School (%)	Daily/Weekly Use-Middle School (%)	M.S. Students (%)
Google Docs	25	53	90
Google Slides	13	23	28
Internet Searches	20	41	78
Teacher-provided websites	20	43	79
Communicating/Publishing beyond the classroom	6	8	34

Further looking at instructional practice questions that were only asked of staff members, one can see this same trend continue with expected differences between the elementary schools and middle schools. (Again, the differences are expected given the differences in resources with all middle school students in possession of an individually-assigned Chromebook.) Throughout the table below, and even at the elementary school level, there is clearly a belief among a large percentage of School District 21 teachers that technology in the hands of students will enable teachers to employ sound instructional practices (or do so more efficiently or more frequently, etc.).

Differences in instructional practices due to technology-Elementary school staff and middle school staff

Instructional Practice	Elementary School Staff (%)	Middle School Staff (%)
Individual & small group teacher support	55	69
Student choice	49	73
Differentiation	62	76
Increase hands-on learning	58	75
Increase Authentic Learning	64	79

Finally, while there are consistent differences in the responses of middle school and elementary school staff members, they responded similarly to two questions:

- Similar percentages of elementary school (63%) and middle school (66%) staff members believe that technology in the classroom leads to a decrease in teacher-led lessons.
- Also, similar and large percentages of elementary school (81%) and middle school (86%) staff members believe that technology in the classroom leads to significant instructional changes.

Conclusion-Student work and learning remains focused in the classroom rather than on connections beyond the classroom and school.

Over the past three years, as a result of the 2011-2014 Technology Plan, School District 21 has focused on its *Learning21 Principles*.
http://www.ccsd21.org/pdf_general/curriculum/learning21principles.pdf
A basis of the *Learning21 Principles* is that students will interact with others beyond the classroom in an effort to make learning more meaningful, increase motivation, and deepen understanding. According to both students and staff, this important concept underlying the *Learning21 Principles* is only infrequently realized for students today in School District 21 with most learning activities centered in and around the classroom, and students and teacher(s) within it, itself.

For example, two-thirds of middle school students state that they rarely communicate with and publish for others beyond the classroom. Similarly, only 12% of students believe that they are publishing their work online on a daily or weekly basis in order to help others learn. Less than one-fourth of students state that they are working with others on a daily or weekly basis to solve real problems, let alone ensuring that those "others" are individuals who may be experts from outside the classroom and can assist with solving or implementing a solution to a problem. A similar 25% of students state that they are teaching other students or adults on a daily or weekly basis, and this, again, does not even begin to address the many ways students can be doing so using the Internet and technology to learn from and to teach anyone anywhere with an Internet connection.

Conclusion-Students are hyper-connected online but not necessarily in the ways that adults may think.

In surveying School District 21's seventh and eighth grade students, the opportunity was taken to begin to truly understand when and how students use technology outside of school, both to understand the world from their perspective as well as to consider how their natural day-to-day uses might be leveraged to support learning based on the School District 21 Curriculum. While CCSD21

Technology Plan Committee members generally assumed that all students were on Facebook and primarily using Facebook as the online hub of their electronic social life, it turned out that the reality was more complicated than that.

- Over the past 6-12 months, the mass media has regularly reported on the shift from Facebook to Twitter among adolescents. While this may be generally very true and may certainly be true among high school students, at this time, only 31% of School District 21 seventh and eighth graders reported having a Twitter account.
- While Facebook is regarded as the dominant form of social media, only 56% of School District 21 seventh and eighth grade students have a Facebook account.
- Instagram has the highest percentage of regular users among School District 21's seventh and eighth grade students with 61% of students reporting that they have an Instagram account. Additionally, Instagram edged out Facebook as the social media site that students stated that they use most frequently.

Additionally, in the last three years, we've seen a much greater percentage of middle school students who now have smartphones. In 2011, less than 20% of middle school students stated that they had a smartphone. That percentage has risen to 67% claiming that they now possess a smartphone, and 80% of middle school students stating that they have a cellular phone of any kind. While these numbers have increased tremendously and certainly cause considerations regarding when and how a Bring Your Own Device (BYOD) program might start in CCSD21 middle schools, these numbers also demonstrate that there are many students who are still on the *unconnected* side of the Digital Divide with one-third of students not owning a smartphone and a full one-fifth of students who do not have a cellular phone of any kind.

Conclusions-A Digital Divide still exists in School District 21 and having the Internet at home matters in how students perform academically.

Having kept track of which students do and do not have Internet access since the 2007-2008 school year, there has been growth in the percentage of families that have Internet access at home. In 2008, approximately 70% of families in School District 21 had Internet access at home. Today, this has gone up to 82% of families that now have Internet access at home. Additionally, in 2008, the school with the fewest students with Internet access at home had only 22% of students with Internet access at home. Today, that same school still has the fewest students in School District 21 with Internet access at home, but now, nearly 60% of families at that school have Internet access at home. Over the past six years, there has been a significant increase in the number of families with Internet access at home, but there remains nearly one-fifth of students whose families do not have Internet access at home. Additionally, given the pace of growth over the past six years, it appears that closing that gap and ensuring that all families have Internet access at home will prove to be challenging.

The biggest growth in Internet access has occurred over the past three years with the number families that now have an adult in the family with a smartphone. According to School District 21 parents, 84% of families state that there is at least one adult in the home who has a smartphone. In 2011, only 48% of families stated that there was at least one adult in the home who had a smartphone. In other words, as has been the focus of the consumer tech industry over the past five years, the past three years has continued to see extraordinary growth when it comes to how many people are connected via mobile devices.

Alongside these gains in connectivity among School District 21 families, the relationship between being low income (as defined by qualifying for free or reduced school meals) and having Internet access at home was also studied. While in 2011, there was no statistical correlation between income and Internet access, in 2014, there was a very small but statistically significant correlation of .2. This correlation is so small that it is virtually meaningless in the real world.

In 2008 and 2011, School District 21 was proud to take a sophisticated look at the relationship between Internet access and student achievement on standardized assessments using regression analysis. This year, that same set of statistical tests was performed for ISAT Reading, ISAT Mathematics, NWEA Reading, NWEA Mathematics, Aprenda Reading, and Aprenda Mathematics. While ISAT and NWEA use similarly structured and numbered scales to describe student performance, Aprenda uses a far different Stanine scale (1-9). Due to this, the results of the regression analysis appear very different, yet they are not. In the case of all six assessments tested, having the Internet at home matters a great deal in predicting the reading or mathematics performance of students. Those students who have the Internet at home score significantly higher than those students that do not. While this data cannot explain why this is true, it has been and continues to be true, and this

information is significant for supporting the need to ensure that all students have access to the Internet in order to improve reading and mathematics performance. Also, consistently across nearly all assessments (ISAT, NWEA MAP, and Aprenda) and over time (2008, 2011, and 2014), the impact of having Internet access at home was typically greater on reading performance than on mathematics performance.

Impact of having Internet access at home on test scores (Based on regression analysis-All scores listed are statistically significant at .05)

Assessment	Score Impact
ISAT Reading	+5.08
ISAT Mathematics	+3.25
NWEA Reading	+3.08
NWEA Mathematics	+1.95
Aprenda Reading	+0.20
Aprenda Mathematics	+0.43

Conclusion-Technology has become ubiquitous in the work lives of CCSD21 staff members, and they have grown more confident in using it.

In 2011, staff members generally reported using technology daily, and three years later, in 2014, 98% of staff members report using staff members each day in order to complete their jobs. Additionally, while there was a fairly low level of confidence among staff members in their technological skills in 2011, today, staff members are very confident about most technological skills. This is further evidenced by the fact that staff members were repeatedly asked in the survey about their confidence with Google Apps tools, which had only been rolled out to most staff members in June 2013, only six months prior to taking the survey.

Confidence of staff members with technology hardware and software

Technology Hardware or Software	"I'm able to use it independently" (%)	"I'm able to teach others" (%)
Computer	27	72
Smartphone	36	53
Projector	31	57
Digital camera	45	40
Document camera	32	42
Email	25	74
Google Docs	42	45
Advanced Internet search	52	32
Evaluating Internet sources	50	28
Facebook	37	33
Pinterest	33	29
Google Sheets	37	23
Google Slides	33	21

Less than 50% of staff members who responded were either confident enough to "teach others" or to use the technology hardware or software "independently" on the following:

- Google Forms
- Audio creation (i.e., music or podcasting)
- Video creation
- Image editing (i.e., post-production for photography)

Considering that Google Apps was only rolled out to staff in June 2013, the following data points demonstrate how quickly and deeply staff members have transitioned to using these tools.

- 98% of staff members use @ccsd21.org Gmail daily.
- 87% of staff members use Google Drive daily.
- 91% of staff members use Google Drive in order to collaborate on a weekly or daily basis.

Conclusion-Very staff members engage in their own online Professional Learning Network on a daily or weekly basis.

With the Internet close at-hand, people can learn from and with others around the world at any time. Among educators, developing a network of colleagues with whom you share experiences and information and from whom you learn has been dubbed a *Personal Learning Network*, or *PLN*. Over the past three years, School District 21 has supported teachers in efforts to build their own PLNs with blog posts and workshops regarding Twitter as well as making Google+ an integral part of the roll-out of Google Apps for Education in School District 21. While there are certainly educators in School District 21 who are actively pursuing their own learning online via services like Twitter and Google+, the survey results show how small a group of professionals this is at this time.

Percentage of staff members who use each service to further their professional learning

Social Network	Daily (%)	Weekly (%)
Twitter	2	4
Facebook	2	2
Pinterest	4	23
Google+	13	15

Despite drawing the attention of educators in School District 21 for what has probably been the shortest period of time (since the roll-out of Google Apps for Education in June 2013), Google+ is already the most utilized of these social networks for learning about, and sharing information regarding, professional topics.

Conclusion-Students state that they are "more interested" and "learning more" in a 1:1 environment.

When taking the survey, depending on the grade level and school that a student attends, they had been in possession of their Chromebooks for anywhere from a few weeks to a few months. Given that, students were asked a variety of questions on the survey to help them reflect upon how school and/or learning had changed for them as a result of having a 1:1 device. While these are initial data points in our ongoing study of the impact of devices in helping our students learn more deeply, the data provided suggested that learning was headed in the "right" direction for our students.

- 65% of students surveyed felt that using computers at school was helping them learn "more" than they were learning previously without having their own computer. (Another 33% felt that they

were learning "the same" amount. So, only 2% of students felt that they were learning "less".)

- 77% of students surveyed felt that learning was "more interesting and fun" with a computer than it was without having their own computer. (21% felt that it was "the same" level of being interesting and fun. Again, only 3% of students felt that it was "less" interesting and fun.)

Analysis - What areas of strength are indicated? What areas of weakness, if any, are indicated by these data? What factors are likely to have contributed to these results? Consider both external and internal factors to the school that can be influenced or improved by the district.

Strengths

Within the data that was analyzed, a number of important strengths emerged on which School District 21 can continue to build with this Technology Plan. Key strengths include the Initiative of students and staff with using new tools, the continued increase in number of families connected, and the clearly articulated instructional vision and supporting professional development.

Even with a range of new software and hardware tools available to them during this past year, students and staff members have quickly embraced these tools and begun to use them to improve student learning, collaboration among teachers, and the ability of both students and teachers to connect with the world beyond the school and classroom. With Google Apps for Education and Chromebooks, among other tools, entirely new paradigms have been presented to students and staff members that are significant shifts from traditional hardware and software. As the pace of technological change continues to quicken over time, the steps taken by students and teachers to naturally learn as needed and flexibly adjust to find the strengths of new tools will serve these individuals and the entire organization well moving forward.

School District 21 places great value on the diversity inherent in the community. One of the many factors of this diversity is that the community is not one that is 100% connected to the Internet or the most up-to-date technological tools and resources. School District 21 understands this. There are two elements to the school district's response to these circumstances: (1) School District 21 seeks solutions that enhance learning for all students while ensuring that they are also fair to all students. This may mean looking at the details of a particular assignment and providing multiple ways of completing the assignment and all with similar rigor. (2) School District 21 also continues to strive to provide resources to the community directly, such as the Family Learning Program, and/or to direct families to work with other agencies in the community to minimize or eliminate these resource gaps that impact the learning of School District 21's students. Through all of these efforts, alongside Harper College, the Wheeling Park District, and the Indian Trails Public Library, as well as outside of these efforts (i.e., Comcast's Internet Essentials program for $10/month Internet access for low income families), School District 21 families are increasingly becoming connected to the Internet. The aforementioned data suggests that this additional access will benefit students' learning.

While the data shows that students and staff members are not regularly connecting with the world beyond the classroom and school in large percentages, the instructional focus for School District 21 is clear with the Learning21 Principles and the emphasis on staff members' own learning, even online. While a clear focus will not simply change how students and staff members interact with the world around them, it is a critical starting place, particularly when students and staff members are given access to the critical tools to connect and share. With those tools in place and the high levels of technology self-confidence now exhibited by students and teachers, the clarity of instructional focus will be the steps on which students and teachers can climb in new directions to support their own and one another's learning.

Weaknesses

Interestingly, the two major weaknesses that School District 21 faces in these areas are tied directly to strengths above.

First, while there has been tremendous growth in the percentage of families that are connected to the Internet, there are still many families that are not connected. As the regression analysis

demonstrates, not being connected has a real and significant impact on how much students are learning with regards to reading and mathematics. Finding ways to finish closing that gap that is the Digital Divide will prove challenging at the very least as there are financial, legal, political, and technological hurdles to overcome in finding and implementing workable solutions.

The second major weakness is that even with a clear focus on connecting students with learning the curriculum through authentic problems that truly impact their world today, there have been only a small number of those instructional units implemented by teams throughout School District 21. To overcome this weakness, which is evidenced in the data by the degree to which students are not connected to the outside world beyond their classroom and school, additional professional development and support for school leaders and educators will need to be implemented on an ongoing basis and in a manner that is integrated in to School Improvement Plans and the daily ongoing work of the school.

Factors Contributing to these Results

Among the factors contributing to both the strengths and weaknesses identified here are the following:

- Professional Development
- Internet access at home

Professional development

Professional development, both face-to-face and always available online resources, has been a source of strength as teachers have become more and more adept and increasingly confident technology hardware and software. Particularly noteworthy is how quickly and completely staff members across School District 21 completely integrated Google Apps for Education in to their work lives--a testament to both the online resources that were available upon the start of the transition as well as the teacher-led professional development workshops that took place throughout the summer. At the same time, the weakness that is the total number of authentic learning units taking place across School District 21 is a sign that additional, and ongoing, professional development will be needed to support and sustain teachers with this major instructional shift--much like the professional development teachers have received for many years related to mathematics instruction and best practices for supporting English language learners.

Internet access at home

The regression analysis that was completed again with this year's data sets demonstrates, as it has in 2008 and 2011, that having Internet access at home is one key factor in supporting high levels of success with reading and mathematics. To consider, that, on average across grades three through eight, students have three to five points added to their ISAT score simply by virtue of having Internet access at home is powerful. Additionally, while there has been great success in the percent of School District 21 families that now have Internet access at home versus had it three years ago, there are still a significant number of families that do not have Internet access at home. Being able to ensure that all students have Internet access at home would appear to make a great difference both in student learning outcomes and in the ability of teachers and students to fully engage in what is outlined in this Technology Plan.

Conclusions - What do these factors imply for next steps in technology planning?

Reading performance in School District 21 continues to trail behind math performance on nearly all measures, and reading performance tends to be more significantly impacted when students do not have access to the Internet at home. By ensuring that all students are able to benefit both from access to critical reading resources and to high-level, differentiated authentic learning opportunities

in which a range of literacy skills are taught and utilized will not only increase the performance of students as readers but across all academic areas.

District Information

Number	Item
6442	Number of K-12 self-contained regular classroom students. This includes any student that is counted for purposes of Average Daily Attendance(ADA). It also refers to students that the district is responsible for in the Student Information System (SIS).
110	Number of K-12 special education self-contained classroom students
567	Number of Teachers (FTE - this does not include teacher aides)
36	Number of Administrators
13	Number of instructional school buildings with high speed internet access
0	Number of instructional school buildings with low speed internet access
0	Number of instructional school buildings with no internet access
13	SubTotal
1	Number of non-instructional school buildings with high speed internet access
0	Number of non-instructional school buildings with low speed internet access
0	Number of non-instructional school buildings with no internet access
1	SubTotal
13	Total number of instructional school buildings
1	Total number of non-instructional buildings
100	Percentage of instructional school buildings with high speed internet access
0	Percentage of instructional school buildings with low speed internet access
0	Percentage of instructional school buildings with no internet access
100	Percentage of non-instructional school buildings with high speed internet access

0	Percentage of non-instructional school buildings with low speed internet access
0	Percentage of non-instructional school buildings with no internet access

Internet Access

	Type of Internet Access							
Locations	**Total Number of Administrative Offices**	**10 mb Ethernet**	**100+ mb Ethernet**	**Dedicated Cable**	**DSL**	**Wireless**	**Other (Dial-up modem, etc.)**	**None (no internet access)**
Instructional Classroom	0	0	399	0	0	399	0	0
Dedicated Computer Lab	0	0	26	0	0	26	0	0
Media Center/Library	0	0	13	0	0	13	0	0
Mobile Computer Lab	0	0	0	0	0	9	0	0
Administrative Offices	0	0	48	0	0	48	0	0
Teacher Offices	0	0	69	0	0	69	0	0
Other Locations	0	0	61	0	0	61	0	0
Totals	0	0	616	0	0	625	0	0

Computer Inventory

Desktop Computers

Desktop Computers

		High Speed Access ≥56k			Low Speed Access <56k			No Internet Access			Total Desktop Computers (will populate automatically)		
Location	**Computer Age**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**
Instructional Classroom	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	88	88	0	0	0	0	0	0	0	88	88
	5+ years	0	214	214	0	0	0	0	0	0	0	214	214
	SubTotal	0	302	302	0	0	0	0	0	0	0	302	302
Dedicated Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	360	360	0	0	0	0	0	0	0	360	360
	5+ years	0	371	371	0	0	0	0	0	0	0	371	371
	SubTotal	0	731	731	0	0	0	0	0	0	0	731	731
Media Center/Library	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	1	1	0	0	0	0	0	0	0	1	1
	5+ years	0	65	65	0	0	0	0	0	0	0	65	65
	SubTotal	0	66	66	0	0	0	0	0	0	0	66	66
Mobile Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Offices	Under 2 years	6	0	6	0	0	0	0	0	0	6	0	6
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	14	32	46	0	0	0	0	0	0	14	32	46
	SubTotal	20	32	52	0	0	0	0	0	0	20	32	52
Teacher Offices	Under 2 years	13	0	13	0	0	0	0	0	0	13	0	13
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	24	24	0	0	0	0	0	0	0	24	24
	SubTotal	13	24	37	0	0	0	0	0	0	13	24	37
Other Locations	Under 2 years	26	0	26	0	0	0	0	0	0	26	0	26
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	121	0	121	0	0	0	0	0	0	121	0	121
	SubTotal	147	0	147	0	0	0	0	0	0	147	0	147

Laptop/Tablet/Netbook Computers

Laptop/Tablet/Netbook Computers

		High Speed Access ≥56k			Low Speed Access <56k			No Internet Access			Total Laptop/Tablet/Netbook Computers (will populate automatically)		
Location	**Computer Age**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**
Instructional Classroom	Under 2 years	2402	0	2402	0	0	0	0	0	0	2402	0	2402
	2-5 years	262	656	918	0	0	0	0	0	0	262	656	918
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	2664	656	3320	0	0	0	0	0	0	2664	656	3320
Dedicated Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Media Center/Library	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Mobile Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	200	200	0	0	0	0	0	0	0	200	200
	SubTotal	0	200	200	0	0	0	0	0	0	0	200	200
Administrative Offices	Under 2 years	14	2	16	0	0	0	0	0	0	14	2	16
	2-5 years	0	41	41	0	0	0	0	0	0	0	41	41
	5+ years	0	1	1	0	0	0	0	0	0	0	1	1
	SubTotal	14	44	58	0	0	0	0	0	0	14	44	58
Teacher Offices	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Other Locations	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0

	2-5 years	4	0	4	0	0	0	0	0	0	4	0	4
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	4	0	4	0	0	0	0	0	0	4	0	4

Handheld Devices

Handheld Devices

		High Speed Access ≥56k			Low Speed Access <56k			No Internet Access			Total Handheld Devices (will populate automatically)		
Location	**Computer Age**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**
Instructional Classroom	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	108	160	268	0	0	0	0	0	0	108	160	268
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	108	160	268	0	0	0	0	0	0	108	160	268
Dedicated Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Media Center/Library	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Mobile Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Offices	Under 2 years	35	0	35	0	0	0	0	0	0	35	0	35
	2-5 years	1	3	4	0	0	0	0	0	0	1	3	4
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	36	3	39	0	0	0	0	0	0	36	3	39
Teacher Offices	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0

	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Other Locations	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0

Servers

Servers

		High Speed Access ≥56k			Low Speed Access <56k			No Internet Access			Total Servers (will populate automatically)		
Location	**Computer Age**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**	**PC**	**Mac**	**Total**
Instructional Classroom	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Dedicated Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Media Center/Library	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Mobile Computer Lab	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Offices	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Teacher Offices	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0

	2-5 years	0	0	0	0	0	0	0	0	0	0	0	0
	5+ years	0	0	0	0	0	0	0	0	0	0	0	0
	SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
Other Locations/Off-site	Under 2 years	0	0	0	0	0	0	0	0	0	0	0	0
	2-5 years	2	31	33	0	0	0	0	0	0	2	31	33
	5+ years	28	0	28	0	0	0	0	0	0	28	0	28
	SubTotal	30	31	61	0	0	0	0	0	0	30	31	61

Operating Systems

	PC					
Locations	**Windows 7**	**Windows Vista**	**Windows XP (any version)**	**Windows 2000 (any version)**	**Windows 95/98**	**Other PC**
Instructional Classroom	266	0	65	0	0	0
Dedicated Computer Lab	0	0	90	0	0	0
Media Center/Library	0	0	0	0	0	0
Mobile Computer Lab	0	0	0	0	0	0
Administrative Offices	11	0	20	0	0	0
Teacher Offices	13	0	0	0	0	0
Other Locations/Off-site	4	0	59	28	0	30
Totals	294	0	234	28	0	30

	MACINTOSH				
Locations	**MAC System 10.x**	**MAC System 9.x**	**MAC System 8.x**	**MAC System 7.x**	**Other MAC**
Instructional Classroom	958	0	0	0	0
Dedicated Computer Lab	731	0	0	0	0
Media Center/Library	66	0	0	0	0

Mobile Computer Lab	200	0	0	0	0
Administrative Offices	76	0	0	0	0
Teacher Offices	24	0	0	0	0
Other Locations/Off-site	31	0	0	0	0
Totals	2086	0	0	0	0

Other Operating Systems (Including Linux)		
Location	**Operating System**	**Number**
Instructional Classroom	Chrome OS, iOS, Android	2592
Dedicated Computer Lab		0
Media Center/Library		0
Mobile Computer Lab		0
Administrative Offices	Chrome OS, iOS, Android	46
Teacher Offices		0
Other Locations		0
	Subtotal	2638

Operating Systems - Totals			
	Administrative	**Other**	**Total**
Windows:			
Windows Vista	0	0	0
Windows XP (any version)	20	59	234
Windows 2000 (any version)	0	28	28
Other PC	0	30	30
Windows 7	24	4	294
Windows 95/98	0	0	0

Subtotal	44	121	586
Macintosh:			
MAC System 10.x	100	31	2086
MAC System 9.x	0	0	0
MAC System 8.x	0	0	0
MAC System 7.x	0	0	0
Other MAC	0	0	0
Subtotal	100	31	2086
Other Operating Systems:			
SubTotal	46	0	46
Total	190	152	2718

Network Equipment

	Type of Equipment							
Locations	**Hubs**	**Routers**	**Switches**	**Wireless Access Points**	**Firewall**	**Spam Filter**	**Content Filter**	**Intrusion Detector**
Instructional Classroom	0	0	0	349	0	0	0	0
Dedicated Computer Lab	0	0	13	12	0	0	0	0
Media Center/Library	0	0	0	25	0	0	0	0
Mobile Computer Lab	0	0	0	0	0	0	0	0
Administrative Offices	0	0	15	25	0	0	0	0
Teacher Offices	0	0	0	0	0	0	0	0
Other Locations	0	14	112	2	1	1	1	1
Totals	0	14	140	413	1	1	1	1

Licensed Software

Yes	No	Software Type
	✓	Networking
	✓	Personal Productivity Tools (Word Processing, Spreadsheet, Database, Communications)
	✓	Multimedia (Graphics, Desktop Publishing, Illustration, CAD, Animation, Video editing etc.)
	✓	Desktop Publishing
	✓	Business Software (Accounting, Mapping, Project Management, Desktop Organizers, etc.)
✓		Programming packages (Computer Programming)
	✓	Student Information Management Systems
	✓	Filtering/Blocking Software
	✓	Anti-Virus
	✓	Other

Other Technologies

	Instructional	Administrative	Total
Networked Printers/Multifunctional Units	244	27	271
Stand-alone Printers/Multifunctional Units	70	9	79
Stand Alone Scanners	10	0	10
Digital Cameras	83	6	89

Camcorders/Movie Cameras	96	12	108
Satellite Dishes	0	0	0
Televisions	36	2	38
Video Microscopes	10	0	10
LCD Panels/Projection Devices	447	27	474
Fax Machines	0	20	20
Graphing Calculators	15	0	15
PDAs	0	0	0
Assistive/Adaptive Devices/Student Response Devices	673	0	673
GPS Devices/Geocaching	0	0	0
Science Probeware	0	0	0
Electronic Whiteboards	0	0	0
Whiteboard Peripherals (clickers, note capturing devices)	0	0	0
Document Cameras	231	2	233
MP3/ Electronic Readers, Kindles, etc.	167	16	183

Telecommunications

	Instructional	Administrative	Total
Landline Service (How many phone numbers - this should reflect phone service put into the E-Rate 471 application)	313	91	404
Mobile Phone Service (How many phone numbers - this should reflect mobile phone service put into the E-Rate 471 application and Blackberries)	0	84	84
Internet connected VOIP(Voice over IP)	0	0	0

Distance Learning

Distance Learning	Number of Access Points
Satellite	0
Cable/Broadcast	42
Internet Services for Distance Learning	0
Phone line/v-tel systems	0
Other	0

Analysis

Summary - Briefly describe the technology deployment data in all district and school facilities (refer to the District Summary Technology Report). Technology deployment includes technology infrastructure, instructional technology integration, information technology, and telecommunications. What do these data tell you? All data used to develop the action plan must be made available to ISBE, the United States Department of Education, the Universal Services Administrative Company, and the local community upon request.

In preparation for the writing of the 2014-2017 Technology Plan, during July and August of 2013, a comprehensive audit of the School District 21 Technology Inventory was completed in each of our schools. This audit was conducted in-person as individual computers, printers, and accessories/peripherals were hand identified and counted. As a result of this audit, School District 21 Information Services staff members were able to confirm that the purchasing procedures, inventory practices, and processes for removing old technology from inventory and recycling it that are in place are effectively working. The data presented here in the 2014-2017 Technology Plan "District Technology Inventory" results from that audit as well as from purchases that have been made since that time during the current 2013-2014 school year.

Over the past six years, a concerted effort has been made to ensure that technological and staffing infrastructure were in place prior to rolling out each major technology change or innovation to students and staff members throughout School District 21. In keeping with that trend, a number of major changes have taken place under the umbrella of the 2011-2014 Technology Plan. The successful completion of these projects and tasks has been the basis for the data successes that lie further below in this summary.

- Additional Staff-Through retirements in other parts of the organization and the transfer of those positions and salaries, two Network and Systems Specialists were added to the technical portion of our Information Services team. Without their work and expertise, the positive changes in technology deployment data that are listed below would not have been possible.
- Tech Center-During the 2011-2014 Technology Plan, at the start of the 2012-2013 school year, a Tech Center was constructed in an unused storage location at the CCSD21 Gill Administration Center. The goal of completing this project had been in the works for a number of years, and its realization has allowed technical staff members to keep up with the demands of increased devices and services for students and staff. This space includes a proper server room as well as work stations for hardware and software repair. Additionally, there is a large amount of additional storage for devices.

The story of the past three years has been a significant increase in the number of devices and tools available to directly serve students.

Fiber & increased bandwidth

Arguably the most important of the back-end infrastructure projects was the move to connect School District 21's schools with fiber lines to replace the older T1 lines connecting school sites. Along with this move, every school moved up to a 100 Mbps connection with a shared connection of 500 Mbps across all sites out to the Internet. Prior to this significant upgrade, elementary schools were connected with a 6 Mbps connection, and middle schools were connected with a 10 Mbps connection. At that time, all schools shared a 100 Mbps connection to the Internet. With these changes, School District 21 could handle many more devices simultaneously connected to the Internet. Additionally, beginning in January 2012, School District 21 was able to institute differentiated filtering for staff members and for students, allowing staff members access to streaming media throughout School District 21. Previously this had been blocked due to bandwidth limitations. The installation of fiber and increases in bandwidth marked a tremendous change to the School District 21 network as well as to how the network is able to be utilized.

Classroom projectors

Originally listed as an action plan item in the 2008-2011 Technology Plan, School District 21 had to re-list this project in the 2011-2014 Technology Plan. In 2010, when School District 21 first sought to complete the project, it had to be postponed as electrical costs were simply too high. At the same time, with the development of high quality short-throw and ultra short-throw projectors as well as the decision to remove classroom televions and use those electrical outlets, School District 21 was able to re-engage with this project in 2011. As a result, 400 projectors were installed in classrooms and conference rooms throughout School District 21. Prior to this, schools had anywhere from 1 to 10 projectors on carts to be shared within the school building. Following the completion of this project, any teacher could, at any time, use the classroom projector to illustrate a lesson for all students in the classroom simultaneously using tools like Google Maps or Google Earth, video chat, Twitter, a video, or breaking news from a series of websites around the world.

File creation and storage platform

During the 2011-2014 Technology Plan, one major area of research and change for School District 21 was going to be examining and choosing among three alternatives for students and staff members to create and store files of various types. During the 2012-2013 school year, a team of students at Holmes Middle School along with a committee of staff members from across the school district, worked through the process of making a recommendation regarding a next generation platform for file creation and storage. The following options were considered:

- Continuing with the existing platform of local file servers syncing to client machines with local software installed on each machine
- Microsoft Office 365
- Google Apps for Education

Students and staff members considered everything from cost to legal concerns to usability in making their recommendation. Ultimately, they recommended and School District 21 selected Google Apps for Education. Implementation began immediately, and by June 20, 2013, all students and staff members had been successfully migrated to Google Apps for Education. Google's Chrome browser was rolled out to all staff laptops at this time, and it became the most important piece of software on their computers as all of the Chrome web apps that are deployed to students and staff also run inside of it. As was cited earlier in this Technology Plan, the transition has been a tremendous success with a very swift and very complete adoption of Google Apps for Education throughout School District 21.

Student devices - Chromebooks

On the heels of the decision to adopt Google Apps for Education, the same students and staff members turned their focus to the single most important technological element of the 2011-2014 Technology Plan, student devices. Again, exhaustive work was undertaken as the team of 55 seventh grade students and committee of staff members each separately went through and carefully

considered five categories of devices--Windows laptops, Mac laptops, Windows 8 convertible devices, iPads, and Chromebooks. After considering the instructional functionality, cost, technical management, durability, and user experience with each category of device (and specific devices within that category), nearly all of the student groups selected Chromebooks as the best option (and particularly the Acer C710 at the time of the decision) and presented that feedback to the staff committee. The staff committee had separately arrived at the same decision and also selected Chromebooks (and, again, the Acer C710). Following the Board of Education's approval in June 2013 of the Chromebooks, the 2013-2014 school year has seen a Chromebook distributed to each sixth, seventh, and eighth grade middle school student in School District 21.

Approximately, 2,100 students now have Chromebooks. Prior to this year, there were approximately 810 "up-to-date" computers available completely for student use plus the approximately 650 teacher laptops, which are also considered the classroom computer. In other words, there has been an increase of anywhere from 100% to 300% in the number of computers available to students to use instructionally depending on how one completes the calculation. School District 21's three middle schools are now a completely 1:1 environment, and there is no longer any issues of access to computers and technology and the Internet for middle school students while at school.

Wireless network upgrade

Since School District 21 had originally installed the wireless network in 2010, there had always been plans to upgrade the wireless network in advance of the roll-out of student devices. That upgrade began in March 2013. New access points were placed in all three School District 21 middle schools, and the access points from those buildings were removed and added to the elementary schools. This plan provided a cost efficient way for School District 21 to increase density in the number of devices that could simultaneously connect to the wireless network. As a result of this upgrade, the wireless network throughout School District 21 was structured in such a way so as to support the planned additional devices that are outlined in the Action Plan of this 2014-2017 Technology Plan.

At the writing of this Technology Plan, wireless network capacity has been upgraded to:

- Middle Schools: at least 1 device per person in all classrooms, except school gyms (50-75 devices per gym depending on network activity)
- Elementary Schools: 1 device per person in intermediate grade level classrooms; 10-15 devices per classroom in primary and early childhood grade level classrooms

PowerSchool expansion

PowerSchool is School District 21's Student Information System. School District 21 has highly customized PowerSchool, and it is the single most important database of student information. Nearly all reporting data provided to the Illinois State Board of Education originates in PowerSchool, and student records, including daily student assessment information, is kept and maintained in PowerSchool. All instructional staff members have secure access to PowerSchool, and their access varies depending upon their position and needs. During the 2011-2014 Technology Plan, two major elements of expansion took place with PowerSchool.

Implementation of PowerSchool Parent Portal for Middle School Parents

With the start of the 2011-2012 school year, School District 21 implemented the PowerSchool Parent Portal for middle school parents. This provides parents with access to see the classroom gradebook and attendance information for their children. Below is a chart that shows the number of students' whose parents have accessed their data as well as what percentage of parents this constitutes from the total school population. When reviewing this data, it must also be considered that there are differences in Internet access at home and the percentage of adults with smartphones across the three middle schools in School District 21.

School	Number of Students Accessed via Parent Portal	Percentage of Student Body
Cooper MS	409	60.5

Holmes MS	226	26.7
London MS	358	54.9

In the past, these parents would have been served with a simple, one-page mid-trimester report. Now, these parents have access to up-to-date information regarding the performance of their children.

Implementation of PowerTeacher Gradebook in Primary Grades
With the start of the 2012-2013 school year, access to the PowerTeacher Gradebook was provided, along with ongoing professional development regarding student assessment and the use of the Gradebook as a data collection tool throughout the school year, to first and second grade teachers. Beginning with the 2013-2014 school year, Trimester Report Cards for primary grade level students were produced from PowerSchool. Today, all teachers in Kindergarten through eighth grade have access to this secure, common, and collaborative tool through which they can flexibly record student assessment data and progress toward the School District 21 Power Standards.

Assistive Technology
With three full-time staff members as part of the Assistive Technology team (one certified Assistive Technology Specialist and two non-certified Program Assistants), the ability to support the individual needs of students has continued to grow. In 2008, School District 21 outsourced assistive technology functions to the local special education cooperative. Those were brought in-house and by 2011, School District 21 had moved from having 0 assistive technology devices to support students to having over 300 such devices. Today, School District 21 has approximately 650 assistive technology devices, from low-tech to high-tech, to support individual students with their learning and communication needs. Additionally, during the 2011-2014 Technology Plan, the Assistive Technology team was moved within the organization to be a part of the larger Information Services team from its previous location as part of the Support Services team.

Analysis - In what ways, if any, has technology deployment including technology infrastructure, instructional technology integration, and information technology contributed to student performance?

For the past three years, one of the three School District 21 Professional Learning Community Areas of Focus has been authentic learning and the *Learning21 Principles*. This focus has been supported with district-wide professional development throughout this time period at both the school and district-levels. Additionally, School District 21 employees a full-time Information Literacy Specialist who serves as a technology and instructional coach for teachers as part of the District's instructional leadership team. While the most significant work in changing and improving student learning is working with students and teachers directly, all hardware, software, network, and services decisions made with regards to technology are designed to further the stated instructional goals of the organization.

Strengths
Over the past three years, School District 21 has moved, once again, to its technology deployment being a source of strength on which student learning can grow. Behind this strength is the work of the technical portion of School District 21's Information Services team, with experts who understand that their work is to support student learning and the work of teachers and principals toward ensuring that all students are learning. From that work over the past three years, the following successes with technological devices and services are impacting and supporting student learning on a daily basis:

- Bandwidth increase & improvements to the wireless network
- Classroom projectors

- Google Apps for Education
- Chromebooks
- PowerSchool Parent Portal & PowerTeacher Gradebook
- Assistive Technology

Bandwidth increase & improvements to the wireless network

Of the many changes technology has brought to learning for learners of all ages both in and out of school over the past fifty years, the Internet is the most profound. With access to the Internet, learners can find and share information as well as make connections to further their own learning without being constricted by time and place like previous generations who could only learn from those around them, often in a classroom-setting. To fully realize the potential of the Internet in the process of learning, it is necessary that students and teachers can rely on a consistent and robust connection to the Internet. The increases in bandwidth and upgrades to the wireless network throughout School District 21 have both been squarely aimed at accomplishing this goal of ensuring that students and teachers have a consistent and robust connection to the Internet on which they can rely for their learning. Given the role of Google Apps and the high levels of usage of wireless devices and the range of resources on offer from the Internet, these technology infrastructure upgrades have significantly impacted students and teachers and their learning.

Classroom projectors

For years leading up to the 2011 deployment of projectors to all Kindergarten through eighth grade classrooms throughout School District 21, teachers regularly stated that students would learn more if they could all simply see something together from the computer. Classroom projectors have enabled that. In School District 21, from the launch of the projectors, it has been clear that using them to simply lecture with projected slides or to show a feature film in its entirety will not significantly change learning. On the other hand, having the projector available to launch an activity with the support of visuals, to allow student groups to share their reflections at the end of a lesson, and to connect in real-time with the world beyond the classroom as a class via the web or Google Maps or video chat is extremely powerful. Historically, humans have been visual storytellers, and this can be a major component of learning for students--not only as consumers of these image-based stories but also as creators. The classroom projectors help to support this fundamental attribute of how we learn and share as human beings and allow students and teachers to engage in these experiences as a class when appropriate.

Google Apps for Education

The implementation of Google Apps for Education was not one that was made to simply allow students and staff members to have a new way of creating and storing documents or as a method to gain any cost savings. Rather, the decision to move to Google Apps for Education was fundamentally made to support student learning--both directly with students as well as through how Google Apps can support further improvements in teacher collaboration to indirectly improve student learning. The most significant change that results from the move to Google Apps is the tremendous capabilities for real-time collaboration.

With real-time collaboration, all students can contribute to a Google Doc, Google Slide, or Google Sheet when working in a group. This allows all of them to be actively thinking and engaged versus being passive while one group member types. Additionally, teachers have the ability using the "Show Revision History" feature to see exactly which student added what to the document at different points in the creation process. From this information, teachers can more deeply diagnosis what students know and do not know and where different students need support and challenges. Taking this a step further, teachers can be collaborators alongside students on documents. For example, while students are actually writing, teachers can leave comments for a student within the Doc, and the student can then consider that comment and make changes on the fly. Prior to Google Docs, the students would have turned in their work, the teachers would have taken it home, read it and commented, and then, the following day, the students would have been able to react to such comments. Additionally, while there are certainly limitations to the time teachers have to work (or should be working) as well as to the degree to which students have access to the Internet outside of school, stories of teachers commenting on student work in real-time outside the school day are already commonplace in less than six months of using Google Apps. All of these examples are the types of highly differentiated and personalized support for literacy and learning from which students can grow significantly.

Just as Google Apps has directly improved student learning by giving students the ability to collaborate with one another and with their teachers in new ways and in real-time, Google Apps has provided staff members with the tools to further improve the already high-level collaborative practices among staff members that are part of the culture and structure of School District 21. Both during and beyond the school day, staff members can build upon existing collaborative structures like regular team meetings and co-teaching with the use of Google Apps to simultaneously contribute to documents and to sharing one another's expertise in problem solving a plan for a specific student or in designing a lesson for all students on a team or in a classroom.

Chromebooks

Having the general tools, like Internet access and Google Apps, is only a start if end-users cannot access these services on a regular basis. The move to a one-to-one environment with Chromebooks in School District 21 Middle Schools is nothing short of transformative as each student now has the ability anywhere in his or her middle school to access the resources of the Internet. No longer does the teacher or a textbook hold the information. Rather, each student has access to find the information from a variety of sources, evaluate those sources and that information, and then synthesize the information to solve a novel problem. The Chromebooks alone will not change instruction but without the Chromebook these type of fundamental instructional shifts are much more difficult to realize. Additionally, the combination of cost and ease of management that is the Chromebook is what allowed School District 21 to accomplish these next steps successfully. In these earliest stages of the 1:1 deployment of Chromebooks, it is difficult to quantify their impact, but over time, there is the expectation that Chromebooks will yield to changes in what and how students learn and, as a result, to students learning more--and more deeply--than before. Of course, to the degree that all students can be guaranteed access to the Internet at home, the power of the Chromebooks will grow even further as students can truly engage in anytime/anywhere learning.

PowerSchool Parent Portal & PowerTeacher Gradebook

The roll-outs of both the PowerSchool Parent Portal to middle school parents and the PowerTeacher Gradebook for primary teachers (alongside intermediate and middle school teachers who had previously had access) were both intended to improve student learning. By giving parents access to see how their children are performing in real-time, parents and teachers, particularly when working with young adolescents, can ensure that students are receiving the support that they need and/or are being challenged appropriately. By empowering parents with the same information that teachers have, parents are brought more deeply in to the team of those educating their child. For teachers, the PowerTeacher Gradebook allows them to collect a range of data on the performance of individual students--everything from observational data to exit slips to rubric scores to results from more traditional quizzes and tests. Being able to store all of this in one location, as a team, allows teachers to easily keep track of the progress of their students as a collaborative group. Primary grade level teachers had been functioning without any type of systemic collaborative student assessment data collection tool, and the Gradebook has provided that.

Assistive Technology

Over the past five years, most School District 21 students are attending school within District 21 schools on a daily basis as the number of students who are being placed in programs in other organizations and facilities has dwindled significantly. Many of these students come to school with multiple physical and cognitive challenges that impact their learning. Assistive technology tools and devices can support these students with communication and learning in the least restrictive environment possible. Currently, there are many students in schools throughout School District 21 using such technologies to participate alongside their classmates as fully included without these technologies, this would simply not be possible. In other cases, these technologies allow students to complete tasks independently that previously would have required and adult to complete. Now, when the student can complete the task on his or her own, he or she is able to fully benefit from the learning experience. While assistive technology often includes the purchase of expensive equipment or software and is very time intensive for staff, assistive technology is also truly accomplishing its goals within the broader scope of ensuring a free, appropriate education for all in the least restrictive environment.

Weaknesses

The weaknesses faced by School District 21 are those that are faced by all school districts. Unfortunately, stating that common fact does not make these challenges any less daunting. The primary challenges are all rooted in school finance. Simply put, the achievement of School District 21's action plan steps would likely be much easier if there was more money. More money would:

- provide additional technical staff
- allow for a 1:1 environment in the intermediate grades rather than the planned 1:3 environment
- create certainty for replacement life cycles by ensuring that funds would be in place

In response to this weakness, School District 21 has arrived at this point of success by:

- creating specific objectives for each project to ensure that money was spent on those elements of a particular project that would have the greatest impact on students and teachers
- planning projects well in advance to ensure that there was clarity on costs
- seeking quality and value when designing and implementing projects as there is no real cost savings if the work done does not meet the needs of the school district or must be re-done earlier than planned due to a lack of foresight
- involving stakeholders in planning and deciding on major projects to ensure that such projects would result in high levels of usage to impact student learning as quickly and efficiently as possible
- finding cost savings elsewhere to offset the amount of new expenses to ensure that the overall School District 21 Budget remained well-balanced

These strategies have allowed School District 21 to move forward with the successful work outlined above in a manner that is focused first on the needs of students and teachers but that is also fiscally responsible and sustainable for the organization. Continuing to implement projects in this manner will be critical to the success of individual projects and to the long-term success of School District 21.

Factors Contributing to these Results

Among the factors contributing to both the strengths and weaknesses identified here are the following:

- Maintenance and improvement of the network
- Student-use devices
- Replacements and life cycles

Maintenance and improvement of the network

The Internet has become the central location for our students and teachers to complete their work and to engage in the process of learning. Without adequate and sustained network and Internet access, a modern computing device is very limited in its utility. Despite the major upgrades that have been completed, the School District 21 network, like all modern networks, will need continued hardware upgrades (switches, cabling, etc.) as well as continued upgrades to the amount of available bandwidth--particularly as video increasingly becomes the centerpiece of media across the web. Additionally, as School District 21 considers solutions related to VoIP for current POTS/Centrex telephone services, additional bandwidth and hardware may also be necessary.

Student-use devices

School District 21's middle school students now benefit from a 1:1 learning environment with each student having his or her own Chromebook. As we consider mobile devices in the elementary school and at early childhood, it will be critical to consider the best devices for the age-level of specific students and the type of tasks that they may be accomplishing on those devices. These devices will be intended to support literacy and authentic learning for all students across all academic disciplines, and based on the responses of staff cited in the Local Assessments section of this Technology Plan,

such devices should contribute to differentiated, learner-centered units and lessons. The transition has begun with the implementation of the Chromebooks at the middle school level, and a continued focus on finding the right student devices when considering instruction and learning, cost, management, and durability will be equally as critical for our elementary school students.

Replacements and life cycles

The 2008-2011 and 2011-2014 Technology Plans have proven to be very successful for School District 21. Many of the Strategies and Activities listed in those Technology Plans have been successfully completed. In a number of cases, devices purchased within those plans will be at the end of their useful lives during this Technology Plan, and replacements will be necessary. Sustaining and updating these past successes for current needs is critical to the long-term success of the students and teachers.

Conclusions - What do these factors imply for next steps in technology planning?

In each of its past two Technology Plans (2008-2011 and 2011-2014), School District 21 has taken significant steps to put technologies in the hands of students and staff members that would allow for increases in student learning. Staff members with laptops, ubiquitous wireless connectivity, and projectors in each classroom are commonplace and considered ordinary throughout School District 21 in 2014. Even in the middle schools, students and staff members have already grown accustom to the notion that all students have their own Chromebooks. Nevertheless, if School District 21 is to realize its goals of improving what students know and can do with authentic learning units, additional technology will need to be placed in to the hands of students and current technologies will need to be maintained and updated, as necessary. The recent improvements in technology devices and services that have been made do need to be maintained, upgraded, and refreshed on a timely and consistent cycle, and new technologies will need to be purchased, deployed, and supported (instructionally and technically) to close the remaining gaps--particularly at the grade levels of younger students. Finally, as School District 21 continues moving forward with new devices and services and as technology changes more globally and broadly beyond School District 21, policies and procedures will necessarily continue to need to be reviewed and updated as necessary to ensure student safety and maximize the effectiveness of these tools.

Action Plan - Goals, Strategies, and Activities
Summary

FY 2015

Goal Number	Title
1	While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2015, School District 21's third through eighth grade students will make AYP via Safe Harbor (minimum 58.9%) with at least 60% of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

FY 2016

Goal Number	Title
1	While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2016, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 65% (or higher if Safe Harbor is higher than 65% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

FY 2017

Goal Number	Title
1	While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2017, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 70% (or higher if Safe Harbor is higher than 70% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Action Plan - Goals, Strategies, and Activities
FY 2015

FY 2015 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2015, School District 21's third through eighth grade students will make AYP via Safe Harbor (minimum 58.9%) with at least 60% of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Action Plan- Instruction
FY 2015

FY 2015 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2015, School District 21's third through eighth grade students will make AYP via Safe Harbor (minimum 58.9%) with at least 60% of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Students will use a variety of authentic resources on the Internet to increase reading and writing achievement.

Activity 1	Start Date	End Date
Students will use resources on/from the Internet to build background knowledge and academic language (including vocabulary) by reading, watching, listening, and interacting with content as part of differentiated, personalized reading instruction.	08/25/2014	06/12/2015

Activity 2	Start Date	End Date
Students will search for, analyze, comprehend, and evaluate information from a variety of sources as part of the reading and writing processes.	08/25/2014	06/12/2015

Activity 3	Start Date	End Date
Students will use information synthesized from what they have read to create high-level products that solve real problems for the community, locally and/or globally, and which require writing and/or speaking skills to complete.	08/25/2014	06/12/2015

Strategy 2

In support of the use of authentic resources from the Internet as students develop their reading and writing skills, students will use technologies, including the Internet, to support their individual needs as learners.

Activity 1	Start Date	End Date
Students who are English language learners will use the Internet to develop literacy in the following ways: to build background knowledge, vocabulary, and academic language in their home language (L1), to access alternative texts in English that are comprehensible to students; and, to interact with non-language-based content, such as images, graphs, and videos, in order to improve their reading, writing, listening, and speaking skills.	08/25/2014	06/12/2015

Activity 2	Start Date	End Date
Individual students will use specifically matched assistive technologies to ensure that they have access to consume information and/or to create new content and products in order to improve their reading, writing, listening, and speaking skills.	08/25/2014	06/12/2015

Strategy 3

Through the School District 21 Program Evaluation process, the future role of STEM (Science-Technology-Engineering-Mathematics) and STEAM (Science-Technology-Engineering-Art-Mathematics)in the middle school exploratory program will be determined.

Activity 1	Start Date	End Date
School District 21 will engage with external (to the organizations) experts to review the existing Middle School Exploratory Technology program and best practices in the field.	07/01/2014	10/31/2014

Activity 2	Start Date	End Date
Based on the recommendations of the program review participants and outside experts, revised instructional plans for the Middle School Exploratory Technology program will be implemented.	11/01/2014	01/31/2015

Action Plan- Professional Development
FY 2015

FY 2015 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2015, School District 21's third through eighth grade students will make AYP via Safe Harbor (minimum 58.9%) with at least 60% of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Certified staff, including teachers and administrators, will engage in ongoing professional development to collect and utilize meaningful assessment data to develop differentiated literacy instruction for individual students and small groups of students.

Activity 1	Start Date	End Date
Certified staff will engage in ongoing professional development activities as part of team meetings, Institute Days, and in conjunction with literacy and math workshops to increase the effectiveness of their use of the PowerTeacher Gradebook.	07/01/2014	06/30/2015

Activity 2	Start Date	End Date
Certified staff will examine strategies on effectively assessing students' progress with the Learner Qualities and the effective collection, analysis, and use of such data in improving student learning with the PowerTeacher Gradebook and to improve literacy for all students.	07/01/2014	06/30/2015

Strategy 2

Certified staff, including teachers and administrators, will participate in professional development focused on the Learning21 Principles and authentic learning in support of improving literacy among students.

Activity 1	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that allow for a deep understanding of and commitment to authentic learning units that require students to read, write, and communicate for a purpose beyond the classroom.	07/01/2014	06/30/2015

Activity 2	Start Date	End Date
Through both district-level and school-based professional development activities, certified staff will work to ensure that units and lessons require students to develop and exercise creativity and innovation in a variety of forms and that students have ongoing opportunities to reflect upon their creative efforts.	07/01/2014	06/30/2015

Activity 3	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that require the evaluation of the teacher-student dynamic in the classroom in an effort to increase the frequency and intensity of learner-centered authentic units in which teachers are "facilitators of student learning" rather than "givers of specific knowledge".	07/01/2014	06/30/2015

Strategy 3

Certified staff members working with third through eighth grade students, including teachers and administrators, will engage in ongoing support both online and in-person related to the use of

Chromebooks to support literacy and student learning.

Activity 1	Start Date	End Date
Certified staff members will share effective strategies for using the Chromebook as a tool to support literacy while engaged with reading and math workshops, during Institute Days, at staff meetings, and via team meetings.	07/01/2014	06/30/2015

Activity 2	Start Date	End Date
Certified staff members will share effective strategies (including via links and shared Docs) for using the Chromebook as a tool to support literacy via Google+.	07/01/2014	06/30/2015

Action Plan- Technology Deployment Data
FY 2015

FY 2015 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2015, School District 21's third through eighth grade students will make AYP via Safe Harbor (minimum 58.9%) with at least 60% of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Maintain and upgrade existing network infrastructure to allow for full usage of instructional and communication technologies.

Activity 1	Start Date	End Date
Update network switches in all three School District 21 middle schools.	07/01/2014	08/24/2014

Activity 2	Start Date	End Date
Identify, purchase, and implement a new web content filtering system.	07/01/2014	08/24/2014

Strategy 2

Maintain and expand student and teacher technology hardware devices to support student learning.

Activity 1	Start Date	End Date
Replace existing teacher laptops with new devices that allow teachers to complete instructional activities with students and in support of student learning.	07/01/2014	12/19/2014

Activity 2	Start Date	End Date
Expand the number of available student devices with the deployment of Chromebooks to be shared among intermediate grade level (3-5) students and teachers in each elementary school at a ratio of approximately one Chromebook for every three students.	07/01/2014	09/30/2014

Activity 3	Start Date	End Date
Purchase and deploy Chromebooks for students entering Grade 6 in 2014-2015.	07/01/2014	09/30/2014

Activity 4	Start Date	End Date
Investigate and identify appropriate devices for primary grade level (1-2) students for 2015-2016 based on instructional need, usability, cost, durability, and technical management.	01/05/2015	05/31/2015

Strategy 3

Enhance internal and external communications to provide access to literacy instructional materials for students, staff, and the community with improved ccsd21.org website

Activity 1	Start Date	End Date
Implement back-end Content Management System (CMS) structure and set-up.	07/01/2014	08/31/2014

Activity 2	Start Date	End Date
Port existing ccsd21.org website to new Content Management System.	09/01/2014	01/04/2015

Action Plan - Goals, Strategies, and Activities
FY 2016

FY 2016 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2016, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 65% (or higher if Safe Harbor is higher than 65% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Action Plan- Instruction
FY 2016

FY 2016 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2016, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 65% (or higher if Safe Harbor is higher than 65% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Students will use a variety of authentic resources on the Internet to increase reading and writing achievement.

Activity 1	Start Date	End Date
Students will use resources on/from the Internet to build background knowledge and academic language (including vocabulary) by reading, watching, listening, and interacting with content as part of differentiated, personalized reading instruction.	08/24/2015	06/10/2016

Activity 2	Start Date	End Date
Students will search for, analyze, comprehend, and evaluate information from a variety of sources as part of the reading and writing processes.	08/24/2015	06/10/2016

Activity 3	Start Date	End Date
Students will use information synthesized from what they have read to create high-level products that solve real problems for the community, locally and/or globally, and which require writing and/or speaking skills to complete.	08/24/2015	06/10/2016

Strategy 2

In support of the use of authentic resources from the Internet as students develop their reading and writing skills, students will use technologies, including the Internet, to support their individual needs as learners.

Activity 1	Start Date	End Date
Students who are English language learners will use the Internet to develop literacy in the following ways: to build background knowledge, vocabulary, and academic language in their home language (L1), to access alternative texts in English that are comprehensible to students; and, to interact with non-language-based content, such as images, graphs, and videos, in order to improve their reading, writing, listening, and speaking skills.	08/24/2015	06/10/2016

Activity 2	Start Date	End Date
Individual students will use specifically matched assistive technologies to ensure that they have access to consume information and/or to create new content and products in order to improve their reading, writing, listening, and speaking skills.	08/24/2015	06/10/2016

Strategy 3

Based on the results and recommendations from the School District 21 Program Evaluation process, the revised STEM/STEAM curriculum will be implemented in the middle school exploratory program.

Activity 1	Start Date	End Date
School District 21 students will participate in STEM/STEAM class(es) and lessons based on the recommendations from the program evaluation process.	08/24/2015	06/10/2016

Action Plan- Professional Development
FY 2016

FY 2016 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2016, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 65% (or higher if Safe Harbor is higher than 65% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Certified staff, including teachers and administrators, will engage in ongoing professional development to collect and utilize meaningful assessment data to develop differentiated literacy instruction for individual students and small groups of students.

Activity 1	Start Date	End Date
Certified staff will engage in ongoing professional development activities as part of team meetings, Institute Days, and in conjunction with literacy and math workshops to increase the effectiveness of their use of the PowerTeacher Gradebook.	07/01/2015	06/30/2016

Activity 2	Start Date	End Date
Certified staff will examine strategies on effectively assessing students' progress with the Learner Qualities and the effective collection, analysis, and use of such data in improving student learning with the PowerTeacher Gradebook and to improve literacy for all students.	07/01/2015	06/30/2016

Strategy 2

Certified staff, including teachers and administrators, will participate in professional development focused on the Learning21 Principles and authentic learning in support of improving literacy among students.

Activity 1	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that allow for a deep understanding of and commitment to authentic learning units that require students to read, write, and communicate for a purpose beyond the classroom.	07/01/2015	06/30/2016

Activity 2	Start Date	End Date
Through both district-level and school-based professional development activities, certified staff will work to ensure that units and lessons require students to develop and exercise creativity and innovation in a variety of forms and that students have ongoing opportunities to reflect upon their creative efforts.	07/01/2015	06/30/2016

Activity 3	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that require the evaluation of the teacher-student dynamic in the classroom in an effort to increase the frequency and intensity of learner-centered authentic units in which teachers are "facilitators of student learning" rather than "givers of specific knowledge".	07/01/2015	06/30/2016

Strategy 3

Certified staff members working with first through eighth grade students, including teachers and administrators, will engage in ongoing support both online and in-person related to the use of student technology devices to support literacy and student learning.

Activity 1	Start Date	End Date
Certified staff members will share effective strategies for using the student technology device as a tool to support literacy while engaged with reading and math workshops, during Institute Days, at staff meetings, and via team meetings.	07/01/2015	06/30/2016

Activity 2	Start Date	End Date
Certified staff members will share effective strategies (including via links and shared Docs) for using the student technology device as a tool to support literacy via Google+.	07/01/2015	06/30/2016

Action Plan- Technology Deployment Data
FY 2016

FY 2016 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2016, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 65% (or higher if Safe Harbor is higher than 65% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Maintain and upgrade existing network infrastructure to allow for full usage of instructional and communication technologies.

Activity 1	Start Date	End Date
Update network switches in five of the School District 21 elementary schools.	07/01/2015	08/23/2015

Strategy 2

Maintain and expand student and teacher technology hardware devices to support student learning.

Activity 1	Start Date	End Date
Purchase and deploy Chromebooks for students entering Grade 6 in 2015-2016.	07/01/2015	09/30/2015

Activity 2	Start Date	End Date
Expand the number of available student devices with the deployment of student devices to be shared among primary grade level (1-2) students and teachers in each elementary school at a ratio of approximately one device for every three students.	07/01/2015	12/18/2015

Activity 3	Start Date	End Date
Investigate and identify appropriate devices to replace elementary school iMac Labs based on instructional need, usability, cost, durability, and technical management.	11/02/2015	02/26/2016

Activity 4	Start Date	End Date
Investigate and identify appropriate devices for early childhood and Kindergarten students for 2016-2017 based on instructional need, usability, cost, durability, and technical management.	01/04/2016	05/31/2016

Strategy 3

Enhance internal and external communications to provide access to literacy instructional materials for students, staff, and the community with improved ccsd21.org website

Activity 1	Start Date	End Date
Port existing school websites to new Content Management System.	03/21/2016	06/30/2016

Action Plan - Goals, Strategies, and Activities
FY 2017

FY 2017 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2017, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 70% (or higher if Safe Harbor is higher than 70% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Action Plan- Instruction
FY 2017

FY 2017 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2017, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 70% (or higher if Safe Harbor is higher than 70% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Students will use a variety of authentic resources on the Internet to increase reading and writing achievement.

Activity 1	Start Date	End Date
Students will use resources on/from the Internet to build background knowledge and academic language (including vocabulary) by reading, watching, listening, and interacting with content as part of differentiated, personalized reading instruction.	08/22/2016	06/09/2017

Activity 2	Start Date	End Date
Students will search for, analyze, comprehend, and evaluate information from a variety of sources as part of the reading and writing processes.	08/22/2016	06/09/2017

Activity 3	Start Date	End Date
Students will use information synthesized from what they have read to create high-level products that solve real problems for the community, locally and/or globally, and which require writing and/or speaking skills to complete.	08/22/2016	06/09/2017

Strategy 2

In support of the use of authentic resources from the Internet as students develop their reading and writing skills, students will use technologies, including the Internet, to support their individual needs as learners.

Activity 1	Start Date	End Date
Students who are English language learners will use the Internet to develop literacy in the following ways: to build background knowledge, vocabulary, and academic language in their home language (L1), to access alternative texts in English that are comprehensible to students; and, to interact with non-language-based content, such as images, graphs, and videos, in order to improve their reading, writing, listening, and speaking skills.	08/22/2016	06/09/2017

Activity 2	Start Date	End Date
Individual students will use specifically matched assistive technologies to ensure that they have access to consume information and/or to create new content and products in order to improve their reading, writing, listening, and speaking skills.	08/22/2016	06/09/2017

Strategy 3

Activity 1	Start Date	End Date

Action Plan- Professional Development
FY 2017

FY 2017 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2017, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 70% (or higher if Safe Harbor is higher than 70% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Certified staff, including teachers and administrators, will engage in ongoing professional development to collect and utilize meaningful assessment data to develop differentiated literacy instruction for individual students and small groups of students.

Activity 1	Start Date	End Date
Certified staff will engage in ongoing professional development activities as part of team meetings, Institute Days, and in conjunction with literacy and math workshops to increase the effectiveness of their use of the PowerTeacher Gradebook.	07/01/2016	06/30/2017

Activity 2	Start Date	End Date
Certified staff will examine strategies on effectively assessing students' progress with the Learner Qualities and the effective collection, analysis, and use of such data in improving student learning with the PowerTeacher Gradebook and to improve literacy for all students.	07/01/2016	06/30/2017

Strategy 2

Certified staff, including teachers and administrators, will participate in professional development focused on the Learning21 Principles and authentic learning in support of improving literacy among students.

Activity 1	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that allow for a deep understanding of and commitment to authentic learning units that require students to read, write, and communicate for a purpose beyond the classroom.	07/01/2016	06/30/2017

Activity 2	Start Date	End Date
Through both district-level and school-based professional development activities, certified staff will work to ensure that units and lessons require students to develop and exercise creativity and innovation in a variety of forms and that students have ongoing opportunities to reflect upon their creative efforts.	07/01/2016	06/30/2017

Activity 3	Start Date	End Date
Certified staff, including teachers and administrators, will participate in professional development activities that require the evaluation of the teacher-student dynamic in the classroom in an effort to increase the frequency and intensity of learner-centered authentic units in which teachers are "facilitators of student learning" rather than "givers of specific knowledge".	07/01/2016	06/30/2017

Strategy 3

Certified staff members working with all School District 21 students, including teachers and administrators, will engage in ongoing support both online and in-person related to the use of student technology devices to support literacy and student learning.

Activity 1	Start Date	End Date
Certified staff members will share effective strategies for using the student technology device as a tool to support literacy while engaged with reading and math workshops, during Institute Days, at staff meetings, and via team meetings.	07/01/2016	06/30/2017

Activity 2	Start Date	End Date
Certified staff members will share effective strategies (including via links and shared Docs) for using the student technology device as a tool to support literacy via Google+.	07/01/2016	06/30/2017

Action Plan- Technology Deployment Data
FY 2017

FY 2017 Goal Title:

While our current achievement level on Reading across all grade levels is 54% of students meeting standards (based on 2013 cut scores), by June 2017, School District 21's third through eighth grade students will make AYP via Safe Harbor with at least 70% (or higher if Safe Harbor is higher than 70% for CCSD21) of students meeting or exceeding standards or all students will make one year's growth annually on district-wide local reading assessments.

Strategy 1

Maintain and upgrade existing network infrastructure to allow for full usage of instructional and communication technologies.

Activity 1	Start Date	End Date
Update network switches in the remaining four School District 21 elementary schools and at Hawthorne Early Childhood School.	07/01/2016	08/21/2016

Activity 2	Start Date	End Date
Updated wireless access points in all elementary schools and switches supporting wireless access points in all schools.	07/01/2016	08/21/2016

Strategy 2

Maintain and expand student and teacher technology hardware devices to support student learning.

Activity 1	Start Date	End Date
Purchase and deploy Chromebooks for students entering Grade 6 in 2016-2017.	07/01/2016	09/30/2016

Activity 2	Start Date	End Date
Expand the number of available student devices with the deployment of student devices to be shared among early childhood and Kindergarten students and teachers in each elementary school with approximately five devices assigned to each classroom.	07/01/2016	12/16/2016

Activity 3	Start Date	End Date
Purchase and deploy new devices to replace iMac computers at each elementary school for a total replacement of one lab per school.	07/01/2016	01/31/2017

Strategy 3

Activity 1	Start Date	End Date

Action Plan - Monitoring and Evaluation
FY 2015

Monitoring - The District Technology Plan should outline a forward-looking evaluation process for future implementation measures that compensate or adjust to changing conditions which might occur beyond the life of the plan.

1. Monitoring Description: Describe how district personnel will monitor the effectiveness of strategies and activities toward the achievement of the goals.

The following components will necessarily be put in place to monitor School District 21's progress in implementing the activities described in this action plan and in determining whether or not those activities are having an impact on student learning. (Determining whether or not the activities themselves are a single direct cause of increases in student learning would require the use of control-variable experimental designs that utilize regression analysis techniques. Such designs, though, are not practical, appropriate, or ethical as a follow-up to the Technology Plan due to the fact that students are randomly assigned to either a control or experimental group.) Despite the challenges of "proving" the impact these strategies and activities are having on student learning, School District 21 is committed to examining the evidence to find patterns that indicate whether or not such the activities are being implemented and whether this work is impacting instruction in such a way so as to increase student learning.

The most important analysis will examine student learning against the SMART Goal established in this Technology Plan on an annual basis. This work, which will be led jointly by District 21's Curriculum and Learning and Information Services staff, will engage the District Improvement Planning Team in reviewing the progress of District 21 students. Using electronic tools, such as Inform as well as spreadsheets and statistical analysis software, the School District 21 leadership team will be able to determine both whether or not the minimum percentage of students have met or exceeded standards on State Reading Assessments as well as how much growth each student has made from one year to the next on local measures. Based on this data, decisions can be made collectively by that leadership group to further improve student learning during the course of the 2014-2017 Technology Plan.

The Professional Development strategies and activities will also be examined annually, and those examinations will be led by those individuals who are most likely to lead both the implementation and reform efforts. In large part, this is the same group of individuals mentioned above--leaders from both Curriculum and Learning as well as Information Services at the district-level. When it comes to the Professional Development strategies and activities, it is particularly important that the individuals who complete this analysis also share these results with others involved in the delivery of professional development with staff, including principals, learning coaches, and school psychologists--who are all critical leaders of schools' school improvement teams. In both cases, the dissemination of this analysis will occur both through face-to-face meetings as well as via the web.

Meetings with curriculum leaders and principals are structured throughout the school year each year, and progress on the Tech Plan strategies is addressed at least one-time annually during the middle of the school year. Additionally, the bulk of the formal analysis described above also takes place each June, just following the students' final day of classes for the year, with day-long sessions of analysis, reflection, and planning.

The Technology Deployment strategies really require two different levels of monitoring. In the case of the network and systems, actual real-time monitoring is in-place and constant. It occurs throughout the day and night, each day. In the case of projects, on the other hand, project plans must be drawn up and communicated, not only with those responsible for implementing the project but also for those who will be the recipients/beneficiaries of the project, and the project implementation must be evaluated and re-evaluated on a weekly basis during the planning and implementation phases. This responsibility primarily falls on the Chief Information Officer and the Network and Systems Manager, but it may also significantly impact the Director of Operations, depending on the

nature of the project.

2. Monitoring Process

FY 2015	Monitoring Tools	Progress Indicators	Evaluation Frequency	Person (s) Responsible
Instruction	-State assessment data -NWEA assessment data -Aprenda assessment data -CCSD21 Student & Teacher Technology Plan Surveys	-State test scores meet Tech Plan SMART Goal target -NWEA & Aprenda test scores meet or exceed one year's growth for individual students -Examination of Student & Teacher data vs. 2013-2014 benchmark data	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Professional Development	-Participation rates for in-person & online professional development -CCSD21 Student & Teacher Technology Plan Surveys	-100% of staff participate in online professional development and 95% of staff participate in in-person professional development -Evidence of growth in analysis of Teacher & Student Survey Data vs. 2013-2014 Teacher & Student Survey Data	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Technology Data	-Network Usage Data -CCSD21 Technology Inventory	-High-level of usage of network resources while always having additional capacity/bandwidth beyond usage -Successful on-time completion of staff laptop distribution -Successful on-time completion of intermediate grades Chromebook distribution	Annual	Chief Information Officer (Dr. Jason Klein); Network & Systems Manager (Mark Handley)

3. Children's Internet Protection Act - Provide Board Policy Information here:

Date Approved	Policy # [6 characters]
04/12/2012	6:235

Action Plan - Monitoring and Evaluation
FY 2016

Monitoring - The District Technology Plan should outline a forward-looking evaluation process for future implementation measures that compensate or adjust to changing conditions which might occur beyond the life of the plan.

1. Monitoring Description: Describe how district personnel will monitor the effectiveness of strategies and activities toward the achievement of the goals.

The following components will necessarily be put in place to monitor School District 21's progress in implementing the activities described in this action plan and in determining whether or not those activities are having an impact on student learning. (Determining whether or not the activities themselves are a single direct cause of increases in student learning would require the use of control-variable experimental designs that utilize regression analysis techniques. Such designs, though, are not practical, appropriate, or ethical as a follow-up to the Technology Plan due to the fact that students are randomly assigned to either a control or experimental group.) Despite the challenges of "proving" the impact these strategies and activities are having on student learning, School District 21 is committed to examining the evidence to find patterns that indicate whether or not such the activities are being implemented and whether this work is impacting instruction in such a way so as to increase student learning.

The most important analysis will examine student learning against the SMART Goal established in this Technology Plan on an annual basis. This work, which will be led jointly by District 21's Curriculum and Learning and Information Services staff, will engage the District Improvement Planning Team in reviewing the progress of District 21 students. Using electronic tools, such as Inform as well as spreadsheets and statistical analysis software, the School District 21 leadership team will be able to determine both whether or not the minimum percentage of students have met or exceeded standards on State Reading Assessments as well as how much growth each student has made from one year to the next on local measures. Based on this data, decisions can be made collectively by that leadership group to further improve student learning during the course of the 2014-2017 Technology Plan.

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Meetings with curriculum leaders and principals are structured throughout the school year each year, and progress on the Tech Plan strategies is addressed at least one-time annually during the middle of the school year. Additionally, the bulk of the formal analysis described above also takes place each June, just following the students' final day of classes for the year, with day-long sessions of analysis, reflection, and planning.

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nature of the project.

2. Monitoring Process

FY 2016	Monitoring Tools	Progress Indicators	Evaluation Frequency	Person (s) Responsible
Instruction	-State assessment data -NWEA assessment data -Aprenda assessment data -CCSD21 Student & Teacher Technology Plan Surveys	-State test scores meet Tech Plan SMART Goal target -NWEA & Aprenda test scores meet or exceed one year's growth for individual students -Examination of Student & Teacher data vs. 2013-2014 benchmark data -Successful implementation of revised STEM/STEAM curriculum in Middle School Exploratory Program	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Professional Development	-Participation rates for in-person & online professional development -CCSD21 Student & Teacher Technology Plan Surveys	-100% of staff participate in online professional development and 95% of staff participate in in-person professional development -Evidence of growth in analysis of Teacher & Student Survey Data vs. 2013-2014 Teacher & Student Survey Data	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Technology Data	-Network Usage Data -CCSD21 Technology Inventory	-High-level of usage of network resources while always having additional capacity/bandwidth beyond usage -Successful on-time completion of student device distribution to grades 1-2	Annual	Chief Information Officer (Dr. Jason Klein); Network & Systems Manager (Mark Handley)

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04/12/2012	6:235

Action Plan - Monitoring and Evaluation
FY 2017

Monitoring - The District Technology Plan should outline a forward-looking evaluation process for future implementation measures that compensate or adjust to changing conditions which might occur beyond the life of the plan.

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The following components will necessarily be put in place to monitor School District 21's progress in implementing the activities described in this action plan and in determining whether or not those activities are having an impact on student learning. (Determining whether or not the activities themselves are a single direct cause of increases in student learning would require the use of control-variable experimental designs that utilize regression analysis techniques. Such designs, though, are not practical, appropriate, or ethical as a follow-up to the Technology Plan due to the fact that students are randomly assigned to either a control or experimental group.) Despite the challenges of "proving" the impact these strategies and activities are having on student learning, School District 21 is committed to examining the evidence to find patterns that indicate whether or not such the activities are being implemented and whether this work is impacting instruction in such a way so as to increase student learning.

The most important analysis will examine student learning against the SMART Goal established in this Technology Plan on an annual basis. This work, which will be led jointly by District 21's Curriculum and Learning and Information Services staff, will engage the District Improvement Planning Team in reviewing the progress of District 21 students. Using electronic tools, such as Inform as well as spreadsheets and statistical analysis software, the School District 21 leadership team will be able to determine both whether or not the minimum percentage of students have met or exceeded standards on State Reading Assessments as well as how much growth each student has made from one year to the next on local measures. Based on this data, decisions can be made collectively by that leadership group to further improve student learning during the course of the 2014-2017 Technology Plan.

The Professional Development strategies and activities will also be examined annually, and those examinations will be led by those individuals who are most likely to lead both the implementation and reform efforts. In large part, this is the same group of individuals mentioned above--leaders from both Curriculum and Learning as well as Information Services at the district-level. When it comes to the Professional Development strategies and activities, it is particularly important that the individuals who complete this analysis also share these results with others involved in the delivery of professional development with staff, including principals, learning coaches, and school psychologists--who are all critical leaders of schools' school improvement teams. In both cases, the dissemination of this analysis will occur both through face-to-face meetings as well as via the web.

Meetings with curriculum leaders and principals are structured throughout the school year each year, and progress on the Tech Plan strategies is addressed at least one-time annually during the middle of the school year. Additionally, the bulk of the formal analysis described above also takes place each June, just following the students' final day of classes for the year, with day-long sessions of analysis, reflection, and planning.

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nature of the project.

2. Monitoring Process

FY 2017	Monitoring Tools	Progress Indicators	Evaluation Frequency	Person (s) Responsible
Instruction	-State assessment data -NWEA assessment data -Aprenda assessment data -CCSD21 Student & Teacher Technology Plan Surveys	-State test scores meet Tech Plan SMART Goal target -NWEA & Aprenda test scores meet or exceed one year's growth for individual students -Examination of Student & Teacher data vs. 2013-2014 benchmark data	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Professional Development	-Participation rates for in-person & online professional development -CCSD21 Student & Teacher Technology Plan Surveys	-100% of staff participate in online professional development and 95% of staff participate in in-person professional development -Evidence of growth in analysis of Teacher & Student Survey Data vs. 2013-2014 Teacher & Student Survey Data	Annual	Chief Information Officer (Dr. Jason Klein); Director of Achievement (Janelle Hockett); Assistant Superintendent for Curriculum & Learning (Rosemarie Meyer)
Technology Data	-Network Usage Data -CCSD21 Technology Inventory	-High-level of usage of network resources while always having additional capacity/bandwidth beyond usage -Successful on-time completion of student device distribution to Pre-Kindergarten and Kindergarten classrooms	Annual	Chief Information Officer (Dr. Jason Klein); Network & Systems Manager (Mark Handley)

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Date Approved	Policy # [6 characters]
04/12/2012	6:235

ISBE Approval

District Name: Wheeling CCSD 21 **RCDT #:** 050160210040000

Original Submission ISBE Approval Date:

School Years Covered by Plan: Plan Expiration Date:

2015 2016 2017

Section Used for Mid-Course Correction Only

Mid-Course Correction (MCC)

Date of Annual Review Leading to MCC: Approval Date of MCC:

Preliminary Information	Requirements
All required identifying district information is complete.	Meets Does Not Meet

Comments:

District Data	Requirements
• District Information • Report Card Data • Local Assessments • Technology Data	Meets Does Not Meet

Comments:

Action Plan	Requirements
Overall Review of Action Plan • Goals • Strategies and Activities • Budget	Meets Does Not Meet

Comments:

Instruction Strategies and Activities ☐ Meets ☐ Does Not Meet

Comments:

Professional Development Strategies and Activities ☐ Meets ☐ Does Not Meet

Comments:

Technology Deployment Strategies and Activities ☐ Meets ☐ Does Not Meet

Comments:

Monitoring and Evaluation	Requirements
• Monitoring Description • Monitoring Process • Internet Safety Policy	☐ Meets ☐ Does Not Meet

Comments:

ISBE Review

☐ Approved ☐ Revisions Needed ☐ Not Approved

Comments: