

Using Technology to Track Academic Success and Factors that Affect It

Allison Rudolph

In today's society it is increasingly important for students to be able to use a computer in a multitude of ways. Computer literacy rests on two skill sets. The first is the understanding of Microsoft Office applications, or equivalent software. Students should be able to type, edit, and style the work that they produce. In addition, they should have the ability to find, assess, and use online sources. There are many uses for the Internet ranging from social media to academic websites. This unit will address my students' inability to use computer hardware or software and expand their use of Internet applications. The result will be to weave in students' motivation to improve academically by tracking their progress toward a goal.

Student Background

I teach twenty third-graders at an inner city school in Wilmington, Delaware. Free or reduced lunch is based on low family income, and 94% of the students in the school are eligible. I have two students with a history of homelessness. The vast majority of my students are African American. I have one Hispanic student who is fluent in English, but whose family speaks Spanish. I have seven students who read well below the third-grade level, one of whom reads at the first-grade level. I have three students who are on track to be on the third-grade reading level by the end of the year and eight students who currently read on grade level. I have one student who is below grade level according to targets on the Delaware State Standardized test, and eighteen who are well below grade level.

Objective

I have two objectives in writing this unit. The first is to model and teach my students how to use computer applications to track progress toward a goal. The second is to enhance my students' goal setting skills.

My students lack the ability to link their academic actions to the grades they receive. In other words, they have not made the connection between their ability to prioritize tasks, their persistence, and their confidence in their abilities, on the one hand, and how well they will perform on an assessment, on the other. Part of the objective of this unit is to help students make the connection between their habits and choices and their resulting academic progress. Additionally, by the end of this unit my students will be able to use the computer as a tool for tracking data. The unit will provide an engaging way for students to use technology to track the results of their hard work.

Rationale

Kathe Jervis states that, "as children begin to see patterns in their work, they realize that their successes are not random accidents. Since they can control their work process – how they begin, when they take breaks, whom they ask for help, how they handle false starts – they come to understand themselves as learners."ⁱ My students have not yet made the connections Jervis postulates. In order for them to be successful, they must understand the rewards hard work creates and realize which personal attributes enable them to be academically successful. In other words:

Repeated opportunities to reflect on their performance in school lead students to form concepts about their own abilities, about school tasks, about the roles of teacher and peers, and about learning itself.ⁱⁱ

I chose to use technology to track academic progress for several reasons. First, the Common Core State Standards assert that, “Students who are college and career ready ... employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use.”ⁱⁱⁱ Since many of my students come from economically disadvantaged homes, they are less likely to have a computer in their household. As a result, they are not exposed to the numerous tools a computer makes available to them. Part of my job, to enable them to compete against less economically disadvantaged peers, is to give them time in school to develop the necessary computer skills. For example, my students are able to use a mouse to play computer games but spend a disproportionate amount of time hunting and pecking for letters when they want to log onto a website. Similarly, their online web access is limited to kid-friendly academic websites, even though the usefulness of the Internet is not limited to academic tools. Since this technology is novel to my students, I hope that introducing them to a variety of uses will increase their engagement in the academic tasks they will be tracking.

Portfolios

An online portfolio is a collection of material stored online in an organized way to suit a purpose. The materials that my students will collect online will be related to their academic progress. They will detail the grades they receive on assessments given throughout the year and personal reflections on the behaviors that enable them to be successful. Once they have set their personal goals, the purpose of collecting this data is to mark progress and determine behaviors that lead to reaching their goals. In conclusion, a portfolio is a “learner-centered approach [that] encourages learners to actively participate in every aspect of their learning, including goal setting, selecting materials and strategies, and assessing outcomes.”^{iv}

Beginning Steps

When I started thinking about the objectives of this unit, I realized I needed to answer two basic questions: “What are my students going to track?” and “What platform will they use to track it?” In order to answer the first question, I listed all the assessments my students take throughout the year. I detailed how often the assessment was taken, what constituted mastery, which increments toward mastery are significant, and how the assessment was conducted. This information can be found in Appendix A.

Answering the second question was less straightforward. Before revealing the platform that will assist my students in tracking their progress, I will briefly describe the platforms I did not choose to use.

Advantages and Disadvantages of Other Portfolio Platforms

<https://voicethread.com>

This website lends itself to a movie-like presentation. Pictures of student work are displayed and audio commentary can be associated to each visual slide. One advantage to this website is that it does not require students to do a significant amount of typing. The steps to add pictures and commentary are laid out in a logical order and are easy to follow. Once a student adds his or her voice, the website plays back the audio, and the student can choose to keep it or rerecord. A downside to this program is that if students want their work uploaded to the website, I would have to scan it, a process that can take a significant amount of time. Another disadvantage to using this site is that each student would need his or her own account. Creating an account requires a valid email address, something I cannot assume all my students have.

www.animoto.com

Animoto, like Voicethread, allows students to create a visual portfolio. A video that automatically appears when you log in details exactly how to use the website. It is straightforward and easy to navigate. Another positive aspect is that the platform does not require my students to do a lot of typing. Although they have the ability to add text, the characters are limited to 22 for a title and 30 for a subtitle. One downside is that I would need to

take pictures and upload them in a way that was easily accessible to each of my students. The publishing process does not allow for flexibility: students could continually add to it throughout the year, but it cannot be published until it is entirely completed. Another concern is the warning that was displayed when I first entered the site: students may not provide any “personally identifying information to Animoto.” My students’ safety on the internet will be a major concern once their portfolios are created.

docs.google.com

Google docs is an online version of the Microsoft Office applications. I was able to create a questionnaire about assessment scores and goals that allowed my students to select preset incremental goals. This is a key feature, since my students are currently unable to think metacognitively about their academic progress without scaffolding. It also seamlessly collected the data from the survey. But this template has an important limitation: I cannot, in one place, have students individually set goals and track their data. I would have their goals, but they would not have a record of them unless I printed a copy for them.

<http://prezi.com>

This website takes a PowerPoint presentation to the next level by adding animated movement as the presenter advances from one slide to the next. When creating a Prezi, the flow of slides is easy to follow, especially if you choose one of the premade outlines. Another benefit is the ability to upload student artifacts into the presentation in addition to written components. One downside is the abundance of formatting options that might encourage students to get bogged down and forget the main purpose of the project. In addition, this website requires a lot of typing. Because there is no option to specify multiple users under a single account, each student would need either his or her own account or would have to make his or her presentation under a general account.

The Portfolio Platform of Choice: Evernote (<http://evernote.com>)

Evernote is a free online application that allows the user to keep ideas in one well-organized place. It can be accessed using a computer, tablet, or smartphone. Once signed on, users can create a notebook, type directly into a note, upload a document or picture, or record an audio message. These ideas are automatically saved through Evernote and are archived for retrieval the next time the user logs on.

The factor that presented Evernote as the clear platform choice was the ease with which it will enable each of my students to have his or her own online space. I can create a free account in Evernote. Within the account each student can have a “notebook,” as seen in Figure 1.

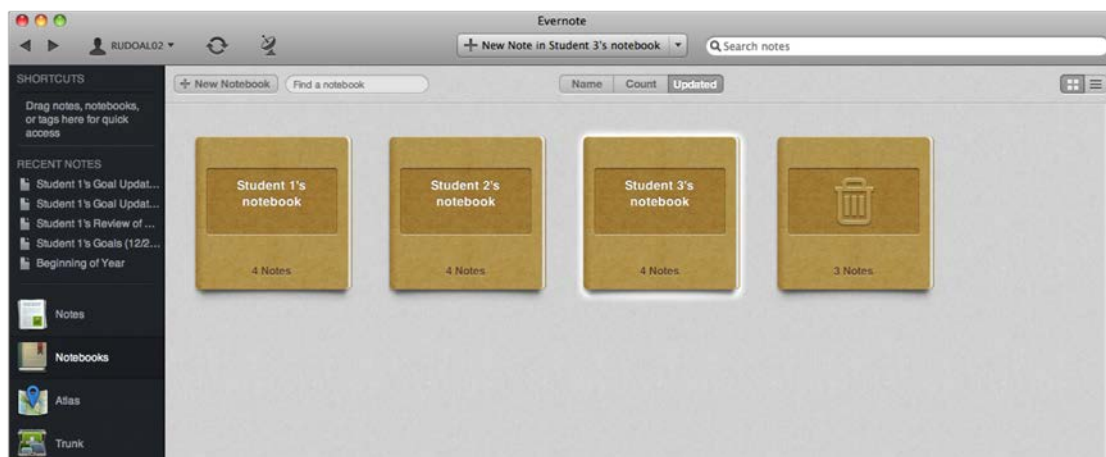


Figure 1

Each student can then add “notes” to his or her personal notebook. Figure 2 shows the list of notes in Student 1’s notebook alongside a detailed view of one of the notes.

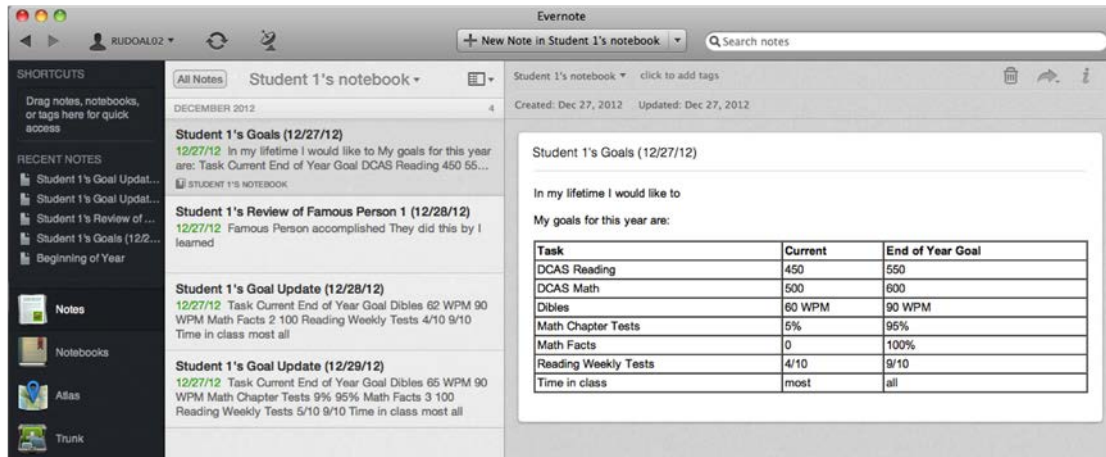


Figure 2

Evernote is also simple for students to use. They do not have to navigate through many screens to start entering data: they simply sign on, select Personal Notebook, then click “New Note in [students’ name] notebook.” The limited range of stylistic options will help keep students’ focus on the information they are tracking. The layout lends itself to the linear progression of data entry. In other words, the diary-like succession allows students to review differences over time. Finally, the search feature enables the easy review of previous entries and keywords.

Teaching Evernote

Logistics

Before teaching this unit I will need to complete a few things. I will create an Evernote account with a universal password and set up a notebook for each student. Next, I will determine a time and schedule for data entry. In order to be available to assist my students at the beginning of the unit, I will take the whole class to my school’s computer lab and walk them through the data entry process one step at a time. Once the class has mastered the process, I will devise a schedule so that each student has one day of the week that they are scheduled on one of the three classroom computers. I will allow them to use the time before announcements in the morning, and as students are dismissed at the end of the day, to update their notebooks. As I grade each student’s work, I will place it in a labeled hanging folder, one for each student. When it is a student’s turn to enter data into Evernote, he or she will create a new note in their notebook and add the new data from the assessments found in their hanging folder.

Scaffolding

My students need certain information and skills in order to become proficient in adding data into their Evernote accounts. The first thing they must be able to do is enable the technology to work for them. To assess their proficiency I will give students a scavenger hunt. They will need to find the buttons that turn on the computer and monitor, and the icons for the Internet and Microsoft Word. I will show students as a group the Evernote icon on my smart board. Once everyone has the application open on their computers, I will show them how to get to their notebook, and add a new note. They will be instructed to type a handful of their spelling words onto the page and experiment with each of the style buttons. As a class we will determine the purpose of each button and display it for easy reference in the classroom.

Typing is the next basic skill needed to enter data into Evernote. In order to decrease their need to hunt and peck for letters, I will print out and laminate keyboards. Students can use these to practice their spelling and vocabulary words. If they get finished writing early, they can pretend to type what they just wrote.

Inevitably technology fails to work as we expect. Since I am only one teacher likely to encounter a host of possible technology glitches, I will train my proficient students to become troubleshooters. When students are working on their own and something goes wrong, I will call on a troubleshooter to help sort out the issue. It will be the troubleshooters' responsibility to check that all wires are plugged in, restart the computer, assist in stylistic changes, or assist in the functioning of Evernote.

Teaching Academic Attitudes

Entering data on Evernote is a mechanical task I am asking my students to complete. Once they have become proficient, my objective is to help students link their actions to the academic results. It will therefore be necessary to teach my students characteristics that will enable them to reach their goals. I have chosen two books to assist me: *The 7 Habits of Happy Kids* by Sean Covey^v and *Unstoppable Me! 10 Ways to Soar Through Life* by Dr. Wayne W. Dyer^{vi}.

The 7 Habits of Happy Kids

This story follows a cast of eight characters who, through experience, learn seven habits that will enable them to be happy and successful in life. Each habit has a colorfully illustrated story that leads the character to understanding the habit and how it can improve his or her life. A page for parents (or teachers) describes the habit, lists five discussion questions, and describes a handful of baby steps that children can take to start weaving the habit into his or her daily life. There are two habits from this book that I will focus on to help my students set and reach their academic goals: "begin with the end in mind" and "put first things first."

When Covey describes beginning with the end in mind, he is suggesting that before you begin a journey you detail for yourself what you need to accomplish along the way. He stresses the importance of having a plan and setting goals. This is the essence of the portfolios my students will be creating. They will be setting long-term goals for their life and shorter-term goals that will be completed by the end of the school year. Similarly, they will track incremental goals they have set for themselves.

"Pokey and the Spelling Test" is a chapter from Covey's book about a boy who spends his time doing other things instead of studying for his spelling test. He suffers the consequences when he does not do well on his test. He learns that next time he should spend some time each day practicing his spelling words instead of procrastinating. I want my students to understand the importance of putting first things first. Playing is fun, but it should come only after necessary things are accomplished.

Unstoppable Me!

In this book Dr. Dyer writes ten poems that describe attitudes that will help children to be successful. Each poem is followed by a situation that exemplifies an attitude that can lead to success. The end of the book poses a question relating to each attitude that can be used for self-reflection and discussion. I will focus on three of Dr. Dyer's suggestions: "You're great no matter what!," "Persistence pays off!," and "You have a choice."

Dyer writes, "If you value yourself / and all that you are—/ you'll be unstoppable—/ the next superstar!"^{vii} I will focus on this poem because many of my students come into my class not realizing their full potential. Many of them ask for a great deal of assistance to complete a task even if they can ultimately complete it on their own. I want my students to realize that being confident in their abilities will help them to succeed academically and will release me from the need to hold their hands through the entire process. The next poem details how patience and determination will enable them to complete any task set in front of them. It is always important to

remind students never to give up, no matter how difficult the task may be. Finally, I want my students to realize that they have choices, and the choices they make affect their lives. Simply put, whether or not they study for a test can determine how well they perform when they take it.

Teaching Strategies

In order to help my students understand that they are great no matter what, I will first read the poem to them. As a class we will examine the structure of the poem. We will discuss the rhyme scheme and the poem's division into three stanzas. After that, the class and I will pick out the main idea from each stanza. Students should realize that the poem is telling each of them that they are worthwhile, they should learn from their mistakes, and that they must value themselves. The class and I will discuss how they might have felt if they were the character in the example that follows the poem. As an extension, my students will come up with another situation where they might need to remember that they matter, and can be successful. The final product after internalizing this message will be a poem (See Appendix B). The heading of the poem will be: "I Value Myself / because I am ____." An acrostic poem will use the letters of each student's name to describe why he or she is valuable.

Next, my students and I will read Covey's "Pokey and the Spelling Test" and Dyer's "Persistence Pays Off." We will analyze two key vocabulary words: *procrastination* and *persistence*. As a class we will create a student-friendly definition of what each of the words means: procrastination is the act of putting off a task that you do not want to complete, and persistence is never giving up on a task that is difficult. The students will write a sentence that uses each new vocabulary word so that its meaning can be inferred from the context of the sentence. Next, I will ask for examples of when students might procrastinate or be persistent and record these examples. Finally, students will draw a picture designed to jog their memory of the meaning of each word. All this information will be entered into a Frayer Model or another similar graphic organizer.

The last poem we will consider is "You Have a Choice." After we read the poem, I will present the class, broken up into groups, with general scenarios. Some scenarios could include: "Today is Monday. You know you have a math test on Friday. What will you do after school each day this week?" or "The teacher gave the direction to put away your books and clear your desk. What three actions will you make next?" Students will be asked to act out each scenario. Afterwards, students will discuss how the outcomes are change depending on the choices that are made.

Synthesizing Data Collected in Evernote

After the first month in school, my students will have had the opportunity to enter information into their Evernote portfolio. The first entry will be a compilation of the goals each student has set for him- or herself. These will range from weekly achievements to lifelong goals. A digital copy of the poem and the vocabulary exercises will be the next entries.

Once I have taught my students which attitudes they should have in order to be successful in school and how to enter their data into Evernote, will work to help them understand how their attitudes are affecting their academic progress.

In order to help students make the connection between their behavior and the academic results, I will gather the class together and explain how to visually represent the information they have provided in their Evernote portfolios. Students will have a chart on regular printer paper that depicts the four behavior attitudes that affect their academic progress for each week (see Appendix C). They will color in the number of boxes based on personal reflection. In other words, if a student recorded in Evernote that he or she never "put first things first," then he or she will color in none of the squares. Students who rarely "put first things first" will color in one square. Students who answer "sometimes" will color in two squares, and those who answer "usually" three. Students who respond that they "always" had the appropriate mindset will color the entire grid. These responses correspond with the range of measurements detailed in the list of assessments in Appendix A.

	Week 1			
Put First Things First	rarely	sometimes	usually	always

Figure 3

Figure 3 depicts a student response “I sometimes put first things first.”

Next, each student will receive another chart that lists the assessments that were completed during the week (detailed in Appendix D). This chart will be printed on transparent paper. Again, students will color in one to four blocks based on the scores they received for each assessment. If they did not complete the assessment, they will color in only the first block. If they received a Below Proficiency rating (near or below 50% correct), they will color two of the blocks (as seen in Figure 4). If they were assessed at Near Proficiency, or 60-70% correct, they will color in three blocks. Finally anyone who scores above 80% or Meets Proficiency will color in all four blocks.

Week 1	Reading Test			
Put First Things First	Did not complete	Below Proficiency	Near Proficiency	Meets Proficiency

Figure 4

When all the students have compiled their data in a visual way, they will place the transparent academic scores on top of the behavioral indicators. As a class we will discuss what patterns we notice between the blocks we colored yellow and the blocks we colored blue. We will discuss what we could do in the future to improve our assessment scores.

Once students have had a chance to think about their individual achievements, I want them to visualize the trend between always putting first things first, thinking you are great, being persistent, making the right choices and academic proficiency. For one week, I will ask each student to count how many yellow (positive behavior thought) boxes they colored and how many blue (academic proficiency) boxes they colored. I will anonymously plot a point for each student. (See Appendix E for an example of a plot that my class could develop.) We will then discuss what we notice from the chart and how each student should strive to reach the point in the top right corner.

Assessment

The assessment for this unit will be based on student reflections. Since students will already be completing academic assessments, it will be unnecessary for them to complete another traditional assessment. Instead, I will ask each student to reflect on how well they believe the portfolio process has helped them to be better students. I will ask students to consider which mindset they find most beneficial to their academic success, which is easiest for them to adopt, and which they still need to develop. Students will respond to the benefits of tracking data on Evernote as well as the visuals produced. Finally, students will predict the effect this unit will have

overall on their academics moving forward and say how likely they are to continue to track their academic progress.

Resources

Teacher's Bibliography

Common Core State Standards Initiative. "Common Core State Standards for English Language Arts." Common Core State Standards Initiative. www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf (accessed December 30, 2012).

Covey, Sean. *The 7 Habits of Happy Kids*. New York: Simon & Schuster, 2008.

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Jervis, Kathe. *Eyes on the Child: Three Portfolio Stories* (New York: Teachers College Press, 1996).

Van Kraayenoord, Christina E. , and Scott G. Paris. "Australian Students' Self-Appraisal of Their Work Samples and Academic Progress." *The Elementary School Journal* 97, no. 5 (1997): 523-537. <http://www.jstor.org/stable/1002267> (accessed September 8, 2012).

Appendix A

Name of Measure	How often Measured	Range of Measurement	Growth / Goals	Description
Delaware Comprehensive Assessment System Reading	Yearly	Well Below (- 650) Below (650 - 689) Meets (690 - 736) Advanced (737 +)	50 or 100 points growth	State mandated standardized test
Delaware Comprehensive Assessment System Math	Yearly	Well Below (- 592) Below (593 - 658) Meets (659 - 749) Advanced (750 +)	50 or 100 points growth	State mandated standardized test
Dibles	Monthly	Intensive (-50 WPM) Strategic (50 - 85 WPM) Benchmark (85 - 100 WPM)	10 WPM growth	Number of words read correctly in 1 minute
Math Chapter Tests	Monthly	Below Proficiency (- 59%) Near Proficiency (60% - 79%) Meets Proficiency (80% +)	Goal of MP	Chapter test taken after each math unit
Reading Weekly Test	Weekly	Below Proficiency (- 5/10) Near Proficiency (6 - 7/10) Meets Proficiency (8/10 +)	Goal of MP	Comprehension/Vocab test taken each week
Math Facts	Weekly	Below Proficiency (- 59%) Near Proficiency (60% - 79%) Meets Proficiency (80% +)	Goal of MP	+, -, x, / facts
Put First Things First	Weekly	0 - never put first things first 1 - rarely put first things first 2 - sometimes put 1 st things 1 st 3 - usually put first things first 4 - always put first things first	Goal of 3	Do academically important activities before entertaining activities.
Great no Matter What	Weekly	0 - never think I'm great 1 - rarely think I'm great 2 - sometimes think I'm great 3 - usually think I'm great 4 - always think I'm great	Goal of 3	Confidence in one's abilities.
Persistence Pays Off	Weekly	0 - never persistent 1 - rarely persistent 2 - sometimes persistent 3 - usually persistent 4 - always persistent	Goal of 3	Sticking through a task even if it is difficult.
You Have a Choice	Weekly	0 - never think of my choices 1 - rarely think of my choices 2 - sometimes think of choices 3 - usually think of my choices 4 - always think of my choices	Goal of 3	Thinking about choices made in regard to academic success.

Appendix B

I Value Myself

because I am -

M - motivated

Y - young-at-heart

N - neat

A - adventurous

M - mature

E - energetic

Appendix C

	Week 1	Week 2	Week 3	Week 4	Week 5
Put First Things First					
Great no Matter What					
Persistence Pays off					
You Have a Choice					

Key

rarely	sometimes	usually	always
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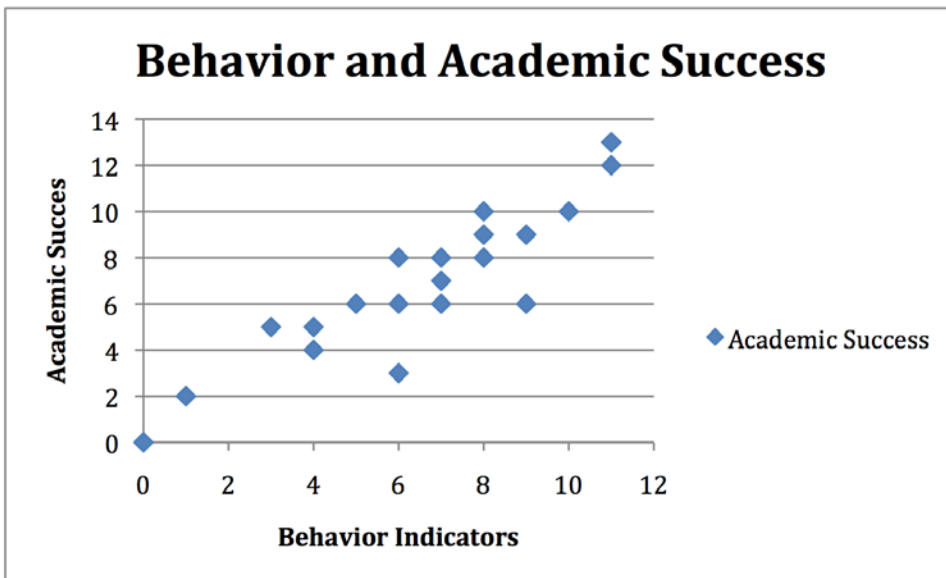
Appendix D

Week 1	Reading Test	Math Test	Dibles	Math Facts
Put First Things First				
Great no Matter What				
Persistence Pays off				
You Have a Choice				

Key

Did not complete	Below Proficiency	Near Proficiency	Meet Proficiency
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Appendix E



Appendix F: Implementing District Standards

Common Core Standards

Reading Literature 4 – Grade 3

Determine the meaning of words and phrases as they are used in a text.

Reading Literature 5 – Grade 3

Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza.

Speaking and Listening 2 – Grade 3

Determine the main ideas and supporting details of a text read aloud.

Speaking and Listening 4 – Grade 3

Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Curriculum Unit Title

Using Technology to Track Academic Success and Factors that Affect It

Allison Rudolnh

KEY LEARNING, ENDURING UNDERSTANDING, ETC.

Students will understand that prioritizing, persistence, and confidence in themselves will help them to be academically successful.

ESSENTIAL QUESTION(S) for the UNIT

What factors lead to your academic success?

CONCEPT A

Putting First things First

CONCEPT B

You're Great no Matter What

CONCEPT C

Persistence Pays Off

ESSENTIAL QUESTIONS A

What activities should you complete first? What activities can you do afterwards?

ESSENTIAL QUESTIONS B

What characteristics make you valuable?

ESSENTIAL QUESTIONS C

In what situation would you need to be persistent?

VOCABULARY A

Prioritize, procrastination

VOCABULARY A

Stanza, value, acrostic poem

VOCABULARY A

Persistence

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

Books:
The 7 Habits of Happy Kids by Sean Covey
Unstoppable Me! 10 Ways to Soar Through Life by Dr. Wayne W. Dyer

Notes

- ⁱ Jervis, Kathe. *Eyes on the Child: Three Portfolio Stories* (New York: Teachers College Press, 1996), 30.
- ⁱⁱ Van Kraayenoord, Christina E., and Scott G. Paris. "Australian Students' Self-Appraisal of Their Work Samples and Academic Progress." *The Elementary School Journal* 97, no. 5 (1997): 523-537. <http://www.jstor.org/stable/1002267> (accessed September 8, 2012).
- ⁱⁱⁱ Common Core State Standards Initiative. "Common Core State Standards for English Language Arts." Common Core State Standards Initiative. www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf (accessed December 30, 2012).
- ^{iv} Lo, Ya-Fen. "Implementing Reflective Portfolios for Promoting Autonomous Learning Among EFL College Students in Taiwan." *Language Teaching Research* 14, no. 77 (2010): 78. <http://ltr.sagepub.com/content/14/1/77> (accessed September 8, 2012).
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- ^{vi} Dyer, Wayne W., and Kristina Tracy. "You're Great No Matter What!" In *Unstoppable Me!: 10 Ways to Soar Through Life*. Carlsbad, Calif.: Hay House, 2006.
- ^{vii} Dyer, Wayne W., and Kristina Tracy. "You're Great No Matter What!." In *Unstoppable Me!: 10 Ways to Soar Through Life*. Carlsbad, Calif.: Hay House, 2006. 1-2.