

Project 2: Paradigm Change

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White County Schools Introduction

White County schools are located just south of the Appalachian Mountains in North Georgia. Cleveland is the county seat and the very popular tourist area of Helen is located in White County. Their vision is that "White County Schools will continuously strive to improve through individual and combined efforts in areas academic achievement, citizenship, and personal and global growth." The mission of White County Schools "is to promote quality lifelong learning and to foster productive citizenship in a safe and caring environment." (Dewalt, 2010).

White County Schools currently have seven schools from grades K-12; one primary, two elementary, one intermediate, one middle, one ninth grade academy, and one high school. Of these schools, only one elementary school did not meet adequate yearly progress (AYP) as outlined in No Child Left Behind Act 2002 (NCLBA) for the 2009-2010 school year. This means that 86% of White County Schools made AYP in 2009-2010. There are 190 faculty and staff members employed at the White County School System. The faculty and staff at White County serve approximately 3900 students. The student body is 92% white, 6% African American, and 2% Hispanic or other. White County Schools have a transient rate of 28%. They currently have 59% of their students qualify for free/reduced lunch (J. Wilson, personal communication, November 3, 2011).

Stakeholders

When looking to make a paradigm shift or systemic change in education, you must take into account all stakeholders that are involved. These stakeholders will determine whether the change takes place or fails. There are many stakeholders to include. In the White County School System, teachers, students, administrators, and parents are all stakeholders. The largest group of stakeholders is the parents and students of White County Schools. Together the family unit can be a very influential part of the process. The parents are invested and want the best education for their students. Parents can be a part of the process by being members of the Parent Teacher Organization and having input in their students' schools.

The second largest group of stakeholders is the teachers. There are 190 teachers employed in the White County system. These teachers are devoted to the teaching and care of the students. Many teachers are unaware of the systemic changes that could be coming to education. However, if given the information and time to investigate on their own, teachers could be a key factor in getting the other stakeholders interested in the change.

The final group of stakeholders in White County Schools is the administrators. This includes county and school level administrators. The school level administrators are the link between the schools and county office personnel. They play a key role in the systemic change by being the liaison. They are able to convey what the county wants to happen to the teachers and parents, as well as report back to the county how things are going. It is important for all stakeholders to have an open mind, be willing to make the change, and collaborate with each other for what is best for all involved.

System Evaluation

In Appendix A, you will find the questions used to evaluate White County Schools and their current views of the system. The following is a quick look at the evaluation of the system and their current views.

Attainment-Based Student Progress

Teachers would agree that students need to master a standard before moving on to the next standard. However, the amount of standards that students are required to master each year often leaves some students behind. Tammy Skelton a teacher in White County stated, "If students were allowed to master a standard before moving on to the next, it would provide them with a good foundation; however, this is often not the case. We teach, cover, practice, move on, teach, cover, practice, in hopes that most understand the concept." She also stated that educators need to go back to the basics of building good foundations in reading, math, and writing. She feels that with the right foundation, all students would be ready to master new concepts/skills. Skelton says, "Education today is forgetting this by putting the cart in front of the horse, so to speak." (T. Skelton, personal communication, Nov. 4, 2011).

Customized Learning

Students will be mobile learners interacting with technology and their environment beyond the four walls and beyond the school day. Students will be contributors of content to the world wide community of learners. Students will be discerning consumers of information and knowledge. Teachers' roles will change from traditional instructional delivery to coaching, monitoring, and verifying student achievement of learning goals. All school and central office staff will work collaboratively to plan technology-enhanced and integrated learning experiences, a true learning community will be developed. (White County, 2009)

Project Space/Instructional Space

White County is made up of 7 schools with all 325 classrooms having high- speed Internet access. Three elementary schools are Apple based while the other four upper grades are Microsoft Intel based. The school district has over 1,800 computers with a student/computer ratio of 2.49/1. Each school has at least two computer laboratories, with additional computers on site. All teachers have laptops and Data Projectors installed in every classroom. Classrooms are based on old model, organized by age and location. White County has also instituted a special 9th grade academy, which is designed to promote a smaller learner community with deeper relationships with teacher mentors.

Standards Based Assessment/ Certifications

85% of schools meet standards for technology, which includes specific student assessments such as ISTE Benchmarks for technology, elementary student keyboard skills via PAWS, middle school keyboarding skills with Mavis Beacon, and high school applications for remedial needs.

There is not an assessment type indicated by the new paradigm. Students w/ disabilities and economically disadvantaged students are not meeting state standards in the middle school level. White County recognizes a need to address reading/math instruction and student performance in all grade levels with these sub groups. In addition, the county promotes alternate forms of

assessment to reflect a holistic, and comprehensive ample of student achievement.

Standards-Based Student Records

Currently teachers in White County use a State Longitudinal Data System for keeping track of standards being met. They also use homework, formative and summative testing, questioning, and projects to monitor student progress.

New Roles For Teachers

The goal is to train the classroom teachers to be adequately prepared to offer these technology-rich opportunities to our students. In addition, students will apply strategies for solving problems and to use appropriate tools for learning, collaborating, and communicating.

New Roles for Technology and Other Resources

First, improving student achievement is extremely dependent on aligning instructional tools and strategies to local, state, and national curriculum standards (Valdez et al., 2000). If instruction and the use of technology are not focused in achieving specific learning standards, the likelihood of achieving measurable impact on student achievement is low.

New Roles for Parents

White County recognizes a need for parents, businesses, libraries, and community agencies to be a vital part of the technological communication pattern in the community. White County wants schools to be the center of parent/community alternative learning opportunities, technology center, and to provide classes and tutoring for parents/and students. Parents still on receiving end: for example, the emphasis is on improved electronic communication with parents. Parents are not initiators in the process, or have a vital role in education, other than “hearing about” what is happening in the classroom. Parents are not involved as tutors, assistants, etc.

Multi Age Groupings/Multiyear Mentoring

White County promotes age grouping, but not multi-age grouping with instruction. There is no multi-year teacher mentoring. The new 9th grade academy is designed to create a smaller learning community, and have students more connected with teachers. Peer Mediation and Mentoring workshops are provided to students, but this is designed for student safety, not achievement.

Enjoyable Learning

“The students were born into the technology age and it’s what they know and many of them love and thrive in it. As a result of the culture my students were born into (tv, internet, sugar-sugar-sugar in their diets, constant change, over stimulus everywhere they look), it provides a great tool for differentiation and offers many options that capture their attention, thus helping them EXPERIENCE the learning process and hopefully make lasting connections.”(B. Sutton, personal communication, Nov. 4, 2011).

Skills For Self-Directed Learning

There was an overwhelming response from the teachers interviewed that most students did not possess the proper skills needed for self-directed learning. Teachers reported that it was primarily their gifted students that truly had the ability to self-direct. The other students, especially those

taking remedial level classes, did not possess confidence in their own abilities, or they simply were not motivated. Another teacher felt that most of their students have been trained well to sit down, read a passage, and answer some basic questions from the passage and a major lacking of self-directed learning skills is apparent when they attempt to have them learn collaboratively.

The Mountain Education and SUMMITT programs are alternative options available within the Ninth Grade Academy and the high school. These are computer-based, self-directed learning programs that allow students to progress from the 9-12 grade without having to attend school within the traditional setting. These students rely on the ability to be self-directed in their learning, as that is the only way they'll be able to progress. Many of these students are there because of behavior or discipline issues or they just did not function or succeed within the traditional classroom. These programs allow students to work at their own pace and have, thus far, been successful.

Some students interviewed were already involved in an online class provided by the high school that required skills for self-directed learning. However, the participation level for this class was much lower than hoped for by the high school administration. Students said they didn't feel they had the discipline to take this class and be successful on top of their existing course load and others said they just didn't feel motivated, period.

Collaborative Learning

Overall it was expressed that while there is some use of collaborative learning, it is not necessarily consistent or commonplace for all classes. Some teachers were restricted by their physical classroom size, as well as their class size. Most of the students interviewed reported that while they sometimes had group projects there wasn't much happening in the way of actual collaborative learning. Some teachers reported that they used collaborative learning opportunities regularly in their classes; definitely weekly if not daily. Collaborative learning occurred frequently within the context of labs in science classes. Collaborative learning occurs less frequently in classes like math where teachers feel strapped for time and have to focus more on time for instruction.

Well-rounded development

While the technology plan for White County does include goals for developing a system to evaluate student mastery of grade appropriate technology skills, interviews and data collected reveal that there is still a lack of these skills amongst the students in the middle school and Ninth Grade Academy.

Some parents interviewed felt that their children are receiving or have received a well-rounded education while being in the White County School System, while others felt that their child had not. Many teachers, students, and parents also expressed dissatisfaction with the availability of more foreign language, advanced math and science, and other elective opportunities.

This year the high school is now offering more AP classes and there is an online Spanish class available to high school and NGA students. The level of success of the online Spanish class may mean that more classes are offered in this format.

The 2012-2013 school year will also bring many potential opportunities for middle school

students. The plan is to offer foreign language as well as other advanced level classes to middle school students that will allow them to gain high school credit.

Small learning communities

There are a number of small learning communities existing within the White County School System. They are as follows:

- Jack P. Nix Primary School: Serves grades K-2
- Intermediate School: Serves grades 3-5
- Middle School contains groups of teaching teams
- Ninth Grade Academy: Serves only 9th Grade students
- SUMMITT Program: Serves students who did not pass the CRCT or who are not progressing in the traditional academic environment.
- Mountain Education Program: Serves students who want to finish high school early, work better in a self-directed learning environment, are not finding success in the traditional academic environment, have behavioral or discipline issues that keep them from being able to attend the traditional school.

Choice for Students and Parents

There are not options for students to choose school, teachers, etc. The only options for school choice are leaving the system for private education. Students/parents in high school can select electives. See above by Turner for additional choices determined by test scores.

Family Services

Community and parent involvement and financial support is part of White County's goal/vision statements, and indicates that stakeholders will work together to improve communication between school and home. White County Schools offer homework centers at all schools and have 21st Century Grants providing after school activities. Superintendent Wilson stated, "We work with a number of social service agencies to provide services to our students."

Learning Cooperative

In addition to teacher and leadership training, the acquisition of additional technology to be used in the schools has added to the use of instructional technology in the classroom. SmartBoards, School Pads & Student Response Systems have provided teachers the opportunity to do new and exciting interactive lessons with their students. Because of this proven improvement in lesson delivery, future classrooms will be equipped with this type of technology tools.

Many teachers now have their own classroom website that provides up-to-date instructional information to students and parents. Products like Teacher-Web and Edline give us the ability to communicate with parents. Internet access of online programs such as the Peterson's SAT Preparation and SAS in Schools curriculum materials provide for improvement and enhancement of a variety of test-taking skills and content material in the upper grades. As the technology knowledge and skills of both our teachers and students grows, we will see an increase of lessons that integrate technology efficiently and raised motivation and interest in completing these lessons.

Stakeholders' Perceptions

Students

The students were very enthusiastic about the new paradigm and the possibilities that it offered. Many of the students are bored, frustrated or dissatisfied with the majority of their classes because of the way they are structured and the way that they are expected to learn and succeed. They were most excited about the possibility of moving on to new material as soon as they demonstrated understanding, or the possibility of being able to stay on the material if they were struggling or did not have full understanding. Some of the students said they felt stressed when they had to move on in a class without feeling ready because then they felt that everything piled up and they became further and further behind.

The consensus was that customized learning, attainment based progress, multi-age grouping, and skills for self-directed learning were all ideas that, within the new paradigm, learning by doing, enjoyable learning, would be beneficial and enhance the overall educational experience. They were receptive towards the idea of more small learning communities, like the ninth grade academy, within the school system. The only core idea that the students were skeptical towards was that of collaborative learning. Most of the students expressed their dislike of group assignments and projects. Many said they preferred working independently because that meant they alone were responsible for the outcome and they didn't have the stress of making sure that another person had completed their portion of the work. Some of these same students voiced that they were usually the ones in groups completing most of the work while other group members just reaped the benefits of having them in the group.

Students want more variety and options in the classes that are available to them, as well as how the classes are offered. Some students want to be able to work at their own pace with little teacher interaction while others said they still want the option of having a teacher directing the learning depending on the content area.

While many of the students liked the idea of not having to move on to new material until they were ready, others were concerned that if there was one specific area that they could not master, then they would never be able to progress. As stated above, they were concerned about having to work in groups. Some students also voiced their dislike of technology because they felt it was unreliable and frustrating.

Parents

Two different categories of parents were revealed while conducting interviews and collecting data regarding the paradigm change in education. One category of parent doesn't perceive a major problem in the way that their children are being educated. They trust the school system and believe that the current state of White County Schools is satisfactory and could not articulate a way to improve things in a drastic way or offer ideas for possible innovations.

The other category of parent is desperate for change within the school system. These parents recognize that many students are either not being challenged enough or are being left behind under the current system. These parents are excited about the prospect of having many more and

diverse course offerings for their students. They also hope that this paradigm change will allow their students to gain true understanding and mastery of subject matter.

There is still some skepticism among the parents about how this paradigm change will actually work. Parents are aware that there is a major financial crisis in the White County School System and they are concerned about how this will affect the implementation of these needed changes. They also expressed understanding that teachers are already struggling to meet the standards laid out by the state and local board of education, and are concerned about how teachers will be supported when making this change.

Teachers

While the overwhelming consensus of the teachers in the White County School System is that there needs to be major change made to our current educational model, there is also a sense of skepticism for how this will be accomplished and whether the changes will in fact be positive and truly helpful. Like many other schools in our state and country, White County is suffering from major budgetary deficits and has been for the past few years. These deficits have meant a reduction in salary, a reduction in funds available for teachers and schools, as well as job cuts, all the while teachers are expected to do more to increase rigor and provide more services for students.

Many teachers are curious how the training and support for the paradigm change will be carried out. Some of those interviewed pointed out examples of technological innovations that have already been made within the schools that have not been as successful as originally hoped. The example that came up the most was the introduction of iPads at the Ninth Grade Academy. One teacher interviewed explained how both administrators at the school received an iPad but neither was given extensive training. One administrator took time to teach himself and uses the iPad regularly, while the other, who is admittedly disinterested in extensive use of technology, has made no effort to learn how to use his iPad and is the classic example of the nonadopter. The perception is that technology is dropped in the laps of the teachers with little direction or instruction on ways to utilize the technology to its maximum potential and therefore creates a situation where the innovation is doomed for failure.

Administrators

White County Administrators are very aware of the need for paradigm change and that it is much needed and very overdue. They agree that the system must implement drastic changes in its approach to how it educates its students, otherwise the system and students will be left behind. Unfortunately, these same administrators are dealing with the reality of budget cuts and watching their teacher workforce get trimmed and morale drop as a result. Administrators are concerned about how the new innovations and technologies will be implemented under the new budget constraints. Funding is already nonexistent for professional learning opportunities for teachers, so while finances may be available for the actual technology, there are few resources for properly training the teachers on how to use it effectively.

Administrators acknowledge that there will be resistance to the paradigm change among some of the teachers, and that these teachers will quickly find themselves out of a job while other teachers adapt to the new educational model. Principals at the middle school, Ninth Grade

Academy, and high school, and the superintendent are very excited about the prospect of more course options for students through the use of online learning programs. Administrators understand that White County has not been as educationally competitive as it needed to be in the past and hope that through the cooperation of principals, teachers, students and parents, and availability of technology, this will soon turn around.

Summary

The interview findings varied between the individual stakeholders and the stakeholder groups, though there was overall consensus in some areas. The majority of the students consulted expressed enthusiasm over the prospect of major change in the way they experience their education, though some were concerned that many of the students simply wouldn't do the work if presented in this new format. There is a firm belief that technology shouldn't be used for technology's sake, but as another tool in a box of many, and a shared concern over how its use will be monitored. Stakeholders, overall, responded positively to the concept of the core ideas and are eager to break away from the current status quo, but many were skeptical that they could be implemented effectively. The main concerns were financial feasibility, parents fully understanding their role in relation to the shift, and teachers believing that this new approach will be successful. Stakeholders felt that in order to play new roles, all will need extensive training within the public school systems and college systems, the curricula will need to be adjusted to support the new paradigm, and that technology, such as the internet and computers must be available in and out of school.

Action Plan

Results of the interviews with teachers in White County, there is a desire to do more collaborative learning. Interview data indicate that barriers to doing so include a lack of classroom space, time, and experience. The desired paradigm change includes a movement to a collaborative model of learning supported by technology for the middle school.

In White County Middle school, students are classified into large teams. Each team consists of four academic teachers: language arts, social studies, math, and science. Classes will do a large amount of collaborative group work to apply standards. Projects will be designed per subjects, or to go across subject divides.

Students are divided into small groups, usually four students per group and given an assignment based on Bloom's Taxonomy skills. For example, students may have to problem solve, write a narrative, song, poem, rap, develop a presentation, or make a movie based on some aspect of class standards. Teams tend to break apart tasks and students do work both inside and outside of class, depending on if they have access to school laptop computer carts. They are expected to continue to work outside of class on collaborative assignments. Students work together by placing individual tasks on flash drives and sharing work with team members. Students can use wikkis, skype, etc. One member may do research while they other designs the PowerPoint based on the research. Cross curricular work may lead students to engage in writing tasks or dramatic performances in science or math class to apply standards.

Counselors work with students to set up effective group communication, social grounding, and collaborative learning conversational skills before during and post group work (Soller, Goodman, Linton, and Gaimari, 2006). Counseling sessions are designed to eliminate student concerns about participating in group work.

The eighth grade students must complete a research paper, which specifically involves cross subject collaboration. Students learn research and writing standards in language arts, but their papers must be based on math, science, or social studies standards. They are given assistance by other team teachers, and have class time to work. Peers review and evaluate every step of the work in teams. At the end of the project, an oral presentation with some type of creative display is presented to adult judges for evaluation. This is rehearsed by presenting the research to peers in various classrooms depending on the subject matter.

In addition, middle school classes go on a volunteer overnight trip. This trip addresses social studies, language arts, math, and science experiences and demands extensive student reflection through a large notebook of assignments to be completed before, during, and after the trip. Students are grouped in collaborative learning groups to complete the notebook of assignments and projects. All the team teachers are involved in planning, executing, and teaching, including the collaborative notebook. Lesson design and collaborative experiences are created according to Tools for Teaching set up by Barbara Davis (1993).

In order to move from the current model to a collaborative model, the following steps will be taken. (See Appendix B for the Create Chart.)

Care

The White County school district interviews have shown that collaborative learning is not being utilized by the classes at the local Middle School. Many of the classes are using differentiation, and whole group instruction, however, we believe that a paradigm change to increase the amount of collaborative learning would be beneficial to the students. Technology would enable the teachers and students to better utilize the collaborative learning model through research as well as group oriented websites.

Relate

We are concerned that the students currently do not have the prior knowledge and skills to be able to work in small groups effectively as well as use the technology effectively. We are also concerned that the teachers are not designing meaningful projects that will effectively cover their standards but also focus on higher levels of Bloom's taxonomy.

The expectations are for the students to have meaningful learning while covering the standards necessary, and allow that learning to improve test scores. The administration is concerned that the test scores continue to rise and that the projects are meaningful within the standards that need to be taught. With the No Child Left Behind Act (NCLB) the Annual Yearly Progress is vital to the funding and success of the school. Administration wants to have the changes reflect ways to improve these scores. The Teachers want to see the students to engage in meaningful learning experiences that enhance their all-around education, as well as learn the teamwork that is

necessary to a good working environment. The students and families would like to see their work have more meaning as well as grades and test scores improve.

Examine

To implement this change there will be a team created. The team will consist of a Technology Supervisor, Instructional technology specialist, subject supervisors, middle school administrators and middle school teachers. They will be responsible for allowing this change to happen. The middle schools are grouped in teams grouped by academic area. Currently there is little collaborative work in classroom and none across subject areas. The teachers are stating there is very little time to do collaborative learning in their classrooms. There has been little skill development provided for the students to be able to collaborate in a productive manner. Much of the focus for the students has been benchmark tests and unit evaluations.

The desired outcome will be to collaborate within the middle school teaching teams to create meaningful learning. The students will be assigned the meaningful learning and be able to collaborate with their peers to accomplish the project. The learning community will be able to collaborate to create a system that benefits the students in the future.

Acquire

To acquire this goal time will need to be provided to the teachers for professional development to understand how to better utilize collaboration within their school. References on collaborative learning strategies will be provided to have subject appropriate meaningful learning. Teacher collaboration will need to be scheduled so that together the team can create the meaningful projects that can even span more than one subject area. However, all of this will need to be supported with technology to make these plans possible.

Resources that will need to be improved will be: the use of computer lap top carts, computers, student flash drives, flip cameras, as well as the use of class and team Wikis, movie-maker and iMovie. With the use of these resources the teachers will have the ability to make more meaningful collaborative assignments. However to make the best use of this technology, the subject team leaders will need to collaborate to create the projects as well as get ideas from other early innovators that have used this model. There are Georgia teachers that are using collaborative learning, and have put much time and effort into collaborative assignments. Seek them out and ask to borrow ideas to use with the students currently being taught. Student leaders should be involved in helping find out what type of things would be most meaningful, as well as help other students that aren't as familiar with the technology. Other sources could also be counselors and local business leaders that could support the projects being presented.

Professional development will be a vital part to the success of this change. Invite collaborative learning experts to teach strategies to the teachers and administration, to get the best use of the technology. The counselors could instruct the student leaders in group dynamic strategies to allow a smoother, more successful group interaction. Administration also needs to support the time for the teachers to collaborate to design projects that support the standards that they are required to teach.

Try

The White County teachers, students, and technology specialists will be involved in this paradigm change. The schedule will reflect the time needed to make this change. Monday – connections day- extend connections so that teachers can work together to prepare the collaborative lessons for the week. Tuesdays – group meetings- extend time for group meetings during the academic block. Most group collaboration will need to be done as homework, outside of school through the use of flash drives and Wikis.

The support for this project will come from the Monday meeting time for teachers, the counselor support for the students and technology to help make the projects possible. The teachers can brainstorm strategies, report success, ask assistance from a technology support specialist or just collaborate together to make this work well. They will also evaluate the success of the program through student and teacher surveys and benchmark tests at the end of each quarter. There will also be final project reports and oral presentations as well as trip notebooks.

Extend

For the short term, evaluate and extend the program throughout the year. For the long term, extend the collaborative learning to the next grade level, even continuing it to the ninth grade academy and the high school coupled with the self-directed learning skills.

Also discussed is the current model of Self-Directed Learning. In order to move from the current model to a self-directed model, the following steps will be taken. (See Appendix C for the Create Chart.)

Care

The problem that we are facing is that many of the students lack the skills needed to proceed with self-directed learning. The students need this option to be able to progress at their own pace; however more skills and technology are needed to make self-paced learning a reality. The technology is not currently consistent throughout the district, so the students come to the ninth grade center with a variety of skills. The areas of concern with making the technology consistent are how the school system will acquire the technology? Will the teachers have access to training so they can properly utilize the new technology? How will the teachers feel about the new approach in regard to accomplishing teaching the standards that they have been charged with, to allow the students to do the work with the self-directed model?

Relate

The Administration, faculty, staff and parents are concerned about this change. They each have different expectations of this change. The administration has been given the task of creating a culture that equips the students for their future, while at the same time laying out a framework so that the standards are accomplished so the CRCT test scores continue to increase. With improving schools comes the money that keeps them in a sound shape. The principals understand that in order to prepare the students for the future that the schools will need to be restructured to be able to accommodate the changes. They will need to allow the students and staff to make the necessary changes, while making sure that the students learn what is expected of them. The faculty and staff will assume more of a role as a facilitator. Their guidance throughout the self-directed course will make sure the standards are learned, even without their

direct teaching. The students will receive the option and resources to progress at their own pace. They will utilize the technology that is provided to be able to direct their learning to better fit their own learning styles. To make all of these expectations a reality an implementation team will be made up of: White County Technology Coordinator, White County Technology Director, Principals, Teachers, and Administrators.

Examine

The teachers have observed a lack of ability among the students to conduct self-directed learning. They will need some assistance and further instruction on how self-directed learning works and what are the expectations of the students. More technology and resources will need to be made available. There are currently some resources available but more will be needed to make this change a success. There are currently two programs that are using self-directed learning: SUMMIT and Mountain Ed. They are having a high rate of success but their format is not being spread throughout the county and specifically to the Ninth Grade Academy. The students need to be developing the skills at an earlier grade so that they are proficient at self-directed learning as well as collaborative learning.

We would like to see the students become technologically literate for problem solving and learning in order to guide themselves through the course content successfully. To see if the students are proficient with self-directed learning the teachers will keep anecdotal records; the students will take benchmark tests as well as teacher and student surveys to see if the change is successful.

Acquire

To make this change possible the Ninth Grade Academy will need more technology such as more computers, iPads, laptops, various types of software and computer games, subscriptions to educational websites and other online services. To fund these improvements, White County will need to access federal and state grants as well as sharing technology among other schools in the system.

There are several resources that can be utilized to assist with this transformation. Graduation coaches can assist the students to make those good choices to be on track when it is time for them to graduate. The content area teachers can assist the students in learning how to use the technology as well as coaching them to meet the standards that are needed to be taught. There are also local colleges that have many resources in their education department that could be tapped into.

The teachers need to be offered professional development opportunities to be able to have the knowledge and skills needed to assist the students properly. This could be done by their peers or an outside source. The teachers also need to have the opportunity to attend conferences in their specific content as well as in technology to assist them in the learning how to make a self-directed classroom appropriate and well managed.

Try

The teachers, students and instructional technology specialists will be on the front lines of this paradigm change. The teachers will receive extensive training and resources as well as examples

of the positive effects the new technology can provide. They will better understand how this technology can be used successfully in their classroom to make an appropriate atmosphere for the best learning. The students will integrate the new technology in a variety of meaningful ways that are engaging but also still providing a challenge. The Instructional technology specialist will provide training, resources and troubleshooting that will enable the teachers and students to successfully integrate the technology into the school system.

Support for the teachers in this change will come through ensuring that the resources are available to easily transition the integration of the new technology. The professional development will directly relate to the technology that they are using as well as having the instructional technology specialist to be available when problems arise. Teachers also need time to collaborate to get ideas on how to best use the technology appropriately as well as having their concerns addressed in a timely manner.

The students will be supported by being trained in the new technology by their teachers. The students also need the instructional technology department to keep the new technology running, so that their learning is not hampered by mechanical errors. The students will also be supported by their teachers and graduation coaches that will help them make those critical decisions to be able to move on successfully.

We will monitor the success of this change by implementing the new technology at a graduated rate. This will allow having benchmarks for success introduced gradually. The students' success will be compared to the success of former students that did not use the self-directed model. The teachers will compare grades, test results and previous projects to better evaluate the program.

Extend

The short term goal for extending the self-directed model would be implementation into certain units of chosen content area. They will pilot the program to verify its success before it is expanded. The long-term priority is for the self-directed model to be streamlined over all of the content areas. The students will have choices for their learning in all of the subject areas. The earlier grades will also begin using the self-directed model to expose the younger students to the ideas and skills needed to be successful with self-directed learning. The support will also need to continue throughout by allowing teachers across multiple grade levels to collaborate on ideas that would be best for their students. Resources needed to be continually repaired and updated to reflect the needs of the classrooms. These resources need to be fluid to accommodate the students progressing at different levels and different rates.

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Appendix A

Core Ideas	Questions:
Attainment-Based Student Progress	Teachers - How do you monitor student progress? How do you feel about the idea that each student needs to master a standard before they advance in class and once they master the standard they are to move on to the next?
Customized Learning	Teachers - How do you use technology to help you differentiate for different student needs in your classroom?
Project Space And Instructional Space	Are you able to work on group projects within the classroom or outside the classroom? (student) Do you feel you have the classroom space to have students work in teams? Are you able to have students work together while they are at home? (teacher) Do you feel you have instructional space to support students working as teams? (administrator) Do you ever see your student work with other students at home using technology to collaborate? (parent)
Standards-Based Assessment & Certifications	What type of standards based assessments are in use county wide? How are students monitored in their ability to master a standard? (teacher) How do you know if you child has mastered a specific task? (parent) As a student, do you ever feel you are waiting for others to catch up to go on with work, or you can't move on to the next grade when you are ready?
Standards-Based Student Records	Teachers - What kind of report card do you currently have? Standards Based? Students - Do you use technology to track your achievement? How? Teachers - How do you use technology to track your students' achievement?
New Roles For Teachers	Teachers - Has technology added to your job description? If so how?
New Roles For Technology & Other Resources	Does technology help you now in ways that you did not have the resources for several years ago? Has new technology taken the place of other tools that you used to use?
New Roles For Parents	Are you able to select what your student learns, where they learn or whom they have as a teacher? (parent) Are you involved in selecting courses or course content? What type of activities are you involved with in your child's school? (parent) What type of family involvement would you like to see with your students' education? (teacher) How does your school encourage parent participation? Are parents able to select instructional content or specify teacher preference? (admins)
Multi-Age Grouping And Multi-Year Mentoring	Do you have any opportunities for students of varying ages to work together either within or without the classroom setting? (admins) Do you ever work with other students not in your grade? (student) Do you ever work with students for more that one year, in programs such as looping up? (teacher) Did you ever want your child remain with a specific teacher for more than one

	year and was it possible? (parent) Would you like to have a teacher for several years? (student)
Enjoyable Learning	How has technology made learning more enjoyable for the students? Students - What is your favorite use of technology in the classroom?
Skills For Self-Directed Learning	Administrator: i. Are teachers being encouraged to offer more self-directed learning opportunities for students? ii. How do you think self-directed learning would affect standardized testing results? Teacher: i. Do you feel the students you teach have been trained well in self-directed learning? ii. What do you perceive to be the greatest detriment for students and self-directed learning? Student: i. Would you prefer to be more self-directed or teacher directed in class? ii. Do you feel you have the self-discipline to self-direct in class? Parents: i. What is your opinion on more self-directed learning in schools? ii. Do you think your child would benefit from more self-directed and less teacher-directed learning opportunities?
Collaborative Learning	Administrator: How is the school schedule structure to promote collaborative learning? What do you think are hindrances to collaborative learning? Teacher: i. How often do lessons incorporate students working in groups or collaboratively? ii. Do you think that standardized tests prevent the implementation of more collaborative learning? Student: i. Do you prefer to work alone or in a group? Why? Parents: i. What is your opinion on implementing more collaborative learning opportunities for your student?
Learning By Doing	Administrator: What do you think specific benefits are to project-based learning? Teacher: i. Do you utilize peer tutoring in your classes? ii. Do you have opportunities for students to demonstrate mastery through teaching? Student: i. Do you find it helpful to demonstrate what you've learned? ii. Do you feel you benefit from having another student review the information with you? And vice-versa?
Well-Rounded Development	Administrator: i. What services do we currently offer students to contribute to well-rounded

	<p>development? ii. What do you believe are specific hindrances to students receiving a well-rounded education? Teacher: i. How often do you work cooperatively with teachers in other content areas to create lessons and units? ii. In what areas of school/ student development do you believe there is a specific deficit? Student: i. Are there any classes or extra-curricular options that you are interested in but are not available? ii. Do you feel that the courses you've taken have prepared you for your future goals and needs? Parents: i. Do you think that your student is receiving a truly well-rounded education and are they prepared for college? ii. What could schools specifically offer that would provide a more well-rounded education?</p>
<p>Small Learning Communities</p>	<p>Administrator: i. In what ways has implementing a small learning community like the Ninth Grade Academy been beneficial to this system? ii. Do you foresee implementing more communities like that? Teacher: i. What is your perception of small learning communities like the NGA? ii. What pros/cons have you encountered with concepts like the NGA? Student: i. Do you feel that being at the NGA was beneficial, as opposed to going straight to the high school? ii. What were the pros/cons having attending the NGA? Parents: i. What has your experience been with having the NGA as an option? ii. Would you like to see more small learning communities like the NGA?</p>
<p>Choice For Students And Parents</p>	<p>What kind of opportunities are there for parents/students to select their own teacher, course, instructional model, process, or facility? (parent) Do you have any choices in what you study, or how you learn your standards? (student) What opportunities to you provide for parents or students to select how students learn a specific standard? (teacher)</p>
<p>Family Services</p>	<p>Admin - Do you offer any services (outside the school) to your students? Parent - What services (outside of the school) would you like to see the school offer?</p>
<p>A Learning Cooperative</p>	<p>Parent - How has technology allowed you to understand better what your student is learning? Does it allow you to feel more a part of their education?</p>

Appendix B

Create Model for Collaborative Learning

I. CARE:

- a. What is the model we are trying to solve? The students do not engage in collaborative learning as observed by classroom teachers, parents, students.
- b. How does technology implementation address this problem? A systematic use of technology enables teachers to better utilize collaborative learning model.
- c. What concerns do you have about implementing technology effectively?
 1. Will students be able to work in smaller groups?
 2. Can teachers design meaningful projects that focus on higher levels of Bloom's taxonomy?
 3. Will students be able to utilize technology to work together effectively?

II. Relate

- a. Who is concerned?
 1. Middle School Teachers
 2. Middle School Administrators
- b. Who are the stakeholders? (same)
 1. Middle School Students
 2. Middle School Teachers
 3. Middle School Administrators
 4. Middle School Families
- c. What are their expectations?
 1. Administrators want to see meaningful projects that apply and problem solve with standards in meaningful group projects that will improve test results.
 2. Teachers want to see students engage in meaningful learning experiences.
 3. Students and Families want to see improved grades, test scores, meaningful learning.
- d. Who will be on the implementation team?
 1. Technology supervisor
 2. Instructional technology specialists
 3. Subject supervisors
 4. Middle School Administrators
 5. Middle School Teachers (pod leaders)

III. Examine

- a. What do we know about the problem? Teachers say through interviews that they do not have time for collaborative learning projects, but wish they could do more collaborative learning.
- b. Context: White county middle schools work in teams grouped by academic areas. There is limited collaborative work in classrooms, and none across subject areas.
- c. Other reforms implemented are: self-directed learning skill development.
- d. The unit of evaluation will be benchmark test results, teacher and student surveys.
- e. The desired outcome is that there will be collaborative learning within middle school teaching teams, for individual subjects, and across the learning community.

IV. Acquire

- a. Tools to use: references on collaborative learning strategies, professional development for teachers, creation of learning strategies for collaborative learning, cross subject projects, technology to support all the above.
- b. Resources to increase technology: use of computer lap top carts, computers, purchase student flash drives, use of class and team wikis, use of flip cameras, movie-maker, iMovie.
- c. Resources to tap for instructional decision-making: use of subject team leaders to design instructional projects, other GA districts currently using collaborative models, technology integration specialists. Student leaders to design projects, teach each other technology resources, administrative support for more time for group work, counselors and local business community to support team building.
- d. Professional development: Invite collaborative learning expert to teach strategies. Allow for collaboration time for teachers to design projects to support standards. Counselors teach group dynamic strategies to student learners following collaborative model.

V. Try

- a. Who will be involved? White County Middle School Teachers/Students, Technology Specialists
- b. Prepare: county training – collaborative learning motivate – Mondays connections day (extended connections so that teachers can better prepare lessons. Tuesdays, extend time for group meetings during academic block. Most of group collaboration is done as homework, outside of school through use of flashdrives and wikis.
- c. Support: teachers- Monday Team support meetings, students' counselor support meetings? iPads? Student's flash drives?
- d. (how monitor implementation?) Through these Monday meetings, teachers can brainstorm strategy, report successes, ask questions of each other and technology support specialists.
- e. Evaluate outcome through student/teacher surveys at end of each quarter, corresponding benchmark tests. Final project oral presentations, trip notebooks

VI. Extend

- a. Short term: extend success throughout year
- b. Extend to next grade level (start 8, 7, 6)
- c. Long term: extend to 9th grade academy and High School coupled w/ increased self-directed learning skills.

Appendix C

Self- Directed Learning CREATE Model Plan

- I. Care
 - a. What is the problem we are trying to solve?
 - i. Students lack skills for self-directed learning as observed by middle school and ninth grade teachers.
 - ii. Students need the option of being more self-directed in their learning so they can progress at their own pace.
 - b. How does technology implementation address this problem?
 - i. A consistent utilization of technology needs to occur system-wide to prepare students at a younger age for self-directed learning.
 - ii. Technology must be available that facilitates learning in this self-directed format.
 - c. What concerns do you have about implementing technology effectively?
 - i. How will the school system acquire the technology needed?
 - ii. How will be teachers be trained to implement this new technology?
 - iii. How will teachers feel about this new approach in regard to the standards they are expected to meet.
- II. Relate
 - a. Who is concerned?
 - i. Faculty/Staff
 - ii. Principals
 - iii. Administrators
 - iv. Parents
 - b. Who are the key stakeholders?
 - i. Students
 - ii. Faculty/Staff
 - iii. Principals
 - iv. Administrators
 - c. What are their expectations?
 - i. Students- To have the option and resources to progress at their own pace.
 - ii. Faculty/Staff- That they will assume more of a role as facilitator.
 - iii. Principals– That the schools will need restructuring to accommodate the changes.
 - iv. Administrators– That White Co. must adopt changes in order to equip students
 - d. Who will be on the implementation team?
 - i. County Instructional Technology Coordinator
 - ii. County Technology Director
 - iii. Principals
 - iv. Teachers
 - v. Administrators
- III. Examine
 - a. What do we know about the problem?

- i. Teachers have observed a lack of ability among students to conduct self-directed learning.
 - ii. There is some technology and resources available for self-directed learning but more resources need to be made available.
 - b. What is the context?
 - i. The SUMMITT and Mtn. Ed programs are 100% self-directed learning with a high success rate but this format is not being translated into the traditional NGA classroom.
 - ii. Students are not developing needed skills that enable them to be self-directed learners.
 - c. What other reforms are we implementing?
 - i. Technology implementations and programs at earlier grade levels that prepare for self-directed directed learning.
 - ii. Implementation of collaborative learning and skill development in earlier grade levels.
 - d. What is the unit of evaluation?
 - i. Teachers' anecdotal records, benchmark test results, teacher and student surveys.
 - e. What is the outcome we expect to achieve?
 - i. Students to be more technology literate and to use the technology for problem-solving and learning.
 - ii. Students to have the ability to guide themselves through course content successfully.
- IV. Acquire
 - a. What tool(s) will we use?
 - i. Computers, iPads, Laptops
 - ii. Various types of software and computer programs.
 - iii. Educational websites and online services.
 - b. What resources can we tap to increase access to technology?
 - i. Federal and state technology grants.
 - ii. Sharing of technology among other schools in the system.
 - c. What resources can we tap to support instructional decision-making?
 - i. Graduation coaches.
 - ii. Content area teachers.
 - iii. Local colleges' educational departments.
 - d. How do we provide appropriate professional development?
 - i. Provide workshops for teachers to prepare them and equip them with knowledge and skills needed to assist students.
 - ii. Allow teachers to attend conferences in their specific content area as well as in technology.
- V. Try
 - a. Who will be involved?
 - i. Teachers
 - ii. Students
 - iii. Instructional Technology Specialists
 - b. How will we prepare and motivate them?

- i. Teachers: Provide extensive training and resources, demonstrate examples of the positive effects the use of new technology will provide.
 - ii. Students: Integrate the new technology in a variety of ways that are engaging while still providing a challenge.
 - iii. ITS: Provide appropriate training and resources that enable them to integrate technology into the school system.
 - c. How will we support them?
 - i. Teachers: Ensuring resources are available to easily transition the integration of the new technology. Provide adequate in-service and training times. Provide opportunities for teachers to respond about their experiences with the new technology and address concerns accordingly.
 - ii. Students: Integrate the new technology in a variety of ways that are engaging while still providing a challenge.
 - d. How will we monitor implementation?

Teachers will implement certain units of the new technology at a graduated rate. Software or teacher-designed units will have built-in benchmarks or evaluations that will be submitted similar to progress reports.
 - e. How will we evaluate our outcome?
 - i. Initially teachers will use personal knowledge and sharing with others within their department to evaluate. Grades, test results, and projects from previous students over same material can be used to compare progress and understanding.
- VI. Extend
 - a. What are the priorities for extending the work in the short-term? In the long-term?
 - i. In the short-term, self-directed learning would be implemented in certain units of chosen content areas.
 - ii. Over the long-term, self-directed learning would become streamlined in all content areas.
 - iii. Extend exposure and use of self-directed learning to earlier grade levels.
 - b. How will we support broader implementation (scaling up)?
 - i. Teachers across multiple grade levels must collaborate (and given resources to do so) to support students working at different levels.
 - ii. Structure the schools and classrooms to accommodate students progressing at different levels.