Improving Performance

An Analysis of Topsail High School's Fundamentals of Technology Course

Low Performance on the VoCats Examination

Patrick H. Gunn

University of North Carolina at Wilmington

Masters of Science in Instructional Technology

Executive Summary

Topsail High School (THS from this point on) is located in Hampstead, NC operating under the Pender County School System. The approximate enrollment is 626 students and approximately 40 full-time faculty members. THS has been a top 10 exemplary school of distinction since the 1997-1998 school year including top 3 and Top 2 rankings in 2001-2002 and 2002-2003 respectively (rankings are based on annual yearly growth in core academic courses).

There is a high expectation for students and faculty to achieve in the areas of computers and technology. There is an XP computer in every classroom and 6 computer labs consisting of an average of 20 XP computers in each. Teachers regularly participate in staff development courses designed to increase knowledge and abilities in the areas of technology including basic software, Internet, and understanding of computer functions. Each full-time faculty member must meet both Benchmarks I and II technology competencies in order to maintain a satisfactory teaching license in North Carolina.

Contrary to the success in the core courses, students enrolled in Workforce Development Education (WDE) courses at THS are decreasing the level of achievement on the end of the year VoCats examination. The particular course that has held the least success is the Fundamentals of Technology course. The average score on the end of the year VoCats examination in the Fundamentals of Technology course is less than 50% with an average of only one student proficient. The lack of achievement comes as a surprise because the instructor for the course has had success in his other two courses.

The Fundamentals of Technology courses allows students to learn the forms of technology, the beginnings of technological advances, why technology works the way it does, how to breakdown the components of computers and other electronic devices while also understanding the functions of each component. The Fundamentals of Technology course was introduced because there was a need felt by educational administrators to allow students to explore technology beyond the basic functions. This ability to explore could lead to continued advances in technology to aid society in the future.

In this document, I will describe the current situation in relationship to the students' performance on the Fundamentals of Technology VoCats examination in the form of a performance analysis. After describing the performance problem, an analysis of the gaps will be conducted to see the major causes and costs of the performance problem. After locating the causes, I will describe the strategies necessary to overcome the problem, and then finally how the strategies will be implemented. The complete analysis will evaluate the Fundamentals of Technology course at all levels of performance: Organizational Environment, Work Environment, Work Level, and Worker level. Charts and Tables are available for reference in the appendix section to aid in understanding the problem and solutions.

Performance Analysis

The state of North Carolina offers Workforce Development courses in grades 6-12 that allows students the opportunity to begin recognizing future career opportunities, and also allow them to build skills necessary to be successful in the "real-world." At the high school level students can choose Vocational Career paths, which include: Medical, Business, Computer, or Architectural (drafting, carpentry, etc.). The Fundamentals of Technology course is one of the few universal courses, meaning it can count towards credit in all career paths. As mentioned in the Executive Summary, the Fundamentals of Technology course at Topsail High School is not achieving at a satisfactory level based on the end of the year VoCats examination. In this performance analysis, I will discuss further the current situation as well as the desired situation in an effort to locate the gaps and their causes. Refer to *Appendix 1* for an outlined description of the performance analysis.

The Organizational Environment

The organizations with the most impact on the situation at hand involves the State and Federal governments who regulate and sets the standards for Workforce Development Education (WDE) courses which Fundamentals of Technology fall under. The Pender County Board of Education who also has major influence because it is the local administering body for Topsail High School. Many environmental factors involving these entities affect the Fundamentals of Technology course and they are:

Current Situation

The Federal government decides on courses fit to fall under WDE and all each state an option to choose from their decisions the courses to offer in their schools. Each state then allows each county to choose the courses most important to meet their goals and the final decision is made by each school principal as to which courses can be efficiently implemented into the school's WDE department.

The state of North Carolina/Federal Government have been cutting funds, positions, and courses in Workforce Development Education (WDE) over the past several years, and have been discussing downsizing tremendously in the next few years. This is a result of lack of success in the courses based on test results and the importance level appears to be decreasing as well.

Currently the WDE courses are not a rationale for ABC status in the schools and the scores on the VoCats exams are simply standards of comparison throughout the counties, regions, and states. There is no penalty for lack of proficiency and no reward for high level achievement.

County regulations require WDE staff members to attend a certain number of hours in curriculum-related staff development sessions each year, but often don't offer staff development courses that are beneficial to the training and implementation of most curriculum areas. There is a yearly meeting headed by the Pender County Vocational Director each year to compare the scores in the WDE courses throughout the county, regions, and state. The meeting also emphasizes the importance of continued improvement on the VoCats and offers suggestions to increase achievement in WDE courses but there is no follow up meetings or continued emphasis throughout the year.

Pender County and Topsail High School places heavy emphasis on WDE instructors to integrate core course curricula into the WDE curricula. There is no emphasis placed on integrating the WDE curriculum into the core courses although the tasks performed in WDE courses are more beneficial to everyday endeavors.

Desired Situation

There should be equal amounts of funds for core courses and WDE because WDE courses are the skills that students can carry with them and are essential in preparing them for the workforce. Establishing more relationships with local businesses that will

benefit from the skills of the students in the future will offer additional resources and also increase the importance of the curriculum.

There should also be more weight on the scores from the VoCats examinations with penalties for poor scores and rewards for high level achievement. Offering more staff development courses that are relevant to all WDE curriculum areas will aid in increasing the effectiveness of instructional and ultimately the scores on the VoCats.

There should be cross integration of curricula (i.e. Core courses should integrate WDE material into core curricula and vise versa) to instill equal importance between core courses and WDE courses.

The Work Environment

For the purpose of this document, the work environment is centered at Topsail High School as well as the classroom in which the Fundamentals of Technology course is taught because they both have major emphasis on the learning environment. The factors related to the work environment are as follows:

Topsail High School

Current Situation

Currently, WDE courses are not a major priority in the educational mission of Topsail High School. There are separate meetings held during testing time emphasizing the testing rules and administration (i.e. A core course meeting and a WDE meeting) and WDE courses are not even mentioned at Faculty meetings or on announcements when emphasizing student performance levels. When scores are low, there is no punishment or suggestion for improvement. Simply the courses are threatened to be removed if achievement does not increase and the teachers in those courses will simply teach other courses to supplement those that are lost.

Students in WDE courses are aware that their VoCats exam score does not determine whether they pass or fail the course, and they also know that a curve mechanism (which can improve scores by up to 25 points in some cases) is in place to increase the chances of success. A lot of the WDE teachers will even bump up grades a few points to make sure that each student passes to prevent from having to teach them again. In the courses where there are multiple levels (Computer Applications I and II),

there is no minimum average for them to go from one level to the next as long as they pass the previous course.

There is an abundance of up-to-date, high quality technology resources in the school. Students and staff have access to multiple forms of technology and media, but are not highly encouraged to utilize them. There is a computer lab in building B that is seldom used but has XP machines with CD burners and other multimedia functions.

Desired Situation

WDE faculty should be included in core course faculty issues to increase the feeling of importance. The lack of importance in the work environment will ultimately trickle down from the faculty members involved to the main stakeholders, the students.

WDE teachers and students should be recognized for their performance on the VoCats examinations as an incentive to do well and to address the importance of the WDE courses. At the same time, both students and WDE faculty should be aware of consequences of not performing well on the VoCats exam.

WDE courses should be marketed better in a manner that will encourage students to understand the content and expectations of each course and choose those most interested in (i.e. Instill in students the importance of the courses for career development). Emphasizing the WDE importance will also ultimately affect the students' perception of WDE, in particular to this analysis, the Fundamentals of Technology course.

There should be a minimum average from previous level courses prior to entering the next level. For example, In Algebra IA a student must make at least an 80% to be allowed to take Algebra IB. That type of system should be used in WDE courses as well because many students are entering the next level without pre-requisite skills.

There should not be such a strong curve policy. The final score on the VoCats exam needs to be the score used as the exam grade for the period. This will make the stakeholders in each WDE course recognize the value of the course and have more of a reason to perform.

There needs to be more emphasis on understanding the technology and use rather than just emphasizing the use of the technology. It is great to have unlimited access to technology, but students need to recognize the importance of using the technology. It is also important that students and faculty understand how things work.

<u>Fundamentals of Technology Classroom</u>

Current Situation:

The Fundamentals of Technology class is taught in the resource classroom connected to the Middle School gym away from the main school buildings. The classroom is the smallest room in the school but holds 15 XP machines, 20 student desks, 1 teacher desk and computer, two laser printers, 6 obsolete computers in the corner of the room used to "dissect" computers in the A+ Certification course, and a 32 inch television on a TV cart with a VCR. It is a very crowded setting even though the average enrollment in the course over the past year is 11 students, and the temperature is often hard to moderate due to the small space with computers functioning all day.

During the Fundamentals of Technology class period, a middle school P.E. course takes place in the gym in which the classroom connects. The noise from the P.E. class overwhelms the Fundamentals of Technology class making it difficult for students to hear the instructor and/or concentrate on their assignments. Often times, the instructor will not lecture, but simply place assignments on the board with written instructions due to the noise each day. This type of environment is very uncomfortable and it also places a mental thought in the minds of the students that the course must not be very important to the school if they stuck them in the resource room in a crowded situation.

As far as a reward system in the classroom, there is none. Students that do well are not praised, and those who do not achieve are not reprimanded, nor is there a system for helping those in need. The only study/review sessions available are during the week prior to the exam. After the exam, each instructor in WDE courses has the option of whether they want to choose the curve mechanism, and for Fundamentals of Technology course, curve is utilized to make sure that each student passes.

Desired Situation

The work environment for the classroom needs to be one where the students can move around more comfortably to get to the printers and to and from their desks to the computers. There needs to be a larger space to work in and no classroom should be connected to a gymnasium where middle school students are participating in P.E. everyday.

A regular classroom or computer lab setting would be most feasible for this course to be more efficient. Students will feel greater value in a course that is not so isolated from the rest of the school and one with more appeal upon entering it. With the classroom being away from the rest of the school, it is often forgotten about and occasional visits from administration are very seldom. If the classroom was among the rest of the school, the students and instructor would feel a little more pressure to remain "on their toes."

More emphasis on doing well needs to be in place. Students need something to aim for in the course. If they know that it really does not matter how well they do, because they will pass the course regardless, the students lose motivation. Although a lot of this mentality stems from the administration, it is up to the instructor to overcome such obstacles.

Work

This section will focus mainly on what the students do in the classroom and how the material is presented to them. This section will also focus on the impact of technology on student performance. The information is based on my peer evaluation on this course in March of 2004, and email correspondence with the instructor during the summer of 2004.

Current Situation

At the beginning of the course students are introduced to the foundations of technology. For example they imagine their lives without technology and then focus on how their lives are improved because of it. They also look back on the beginnings of human life and how and why they began using things to improve life. After that initial discussion on the first day of class, the students spend the remainder of the semester researching forms of technology and their origins.

Students gain a brief overview of each lesson, and then each student is given a separate topic from the lesson to research further via the web and must present a PowerPoint presentation to the class of their findings and teach classmates about the topic. There is not a lot of hands on application, just mainly researching.

Over 80% of each class period, the students are at the computers either researching or preparing their PowerPoint presentations. While students are working, the instructor remains at his desk until students need assistance, then he immediately responds to the students' needs to allow them some independence in the learning process. A major concern is that there is never a set due date for assignments and therefore no penalty for late work or a system in place to monitor student abilities.

Weekly quizzes are given on topics discusses and then they grade together as a class. During the grading of the quizzes, the instructor allows for any questions to be asked, and upon the completion of grading, a new lesson is begun regardless of whether there is consensual understanding of the quizzed material.

Desired Situation:

A thorough lecture with relevant examples as assurance of the learning process would ensure understanding. Students could gain the overview, then reemphasize areas during their research methods. The instructor should monitor the student activities more often during the class period to make sure they remain on task and to notice any problems that certain students may not want to call attention to. With the abundance of information and other resources available on the computer, students can easily be distracted. There also needs to be some due dates in place for student to work towards and also to show give way to more importance of the topics.

Students should engage in hands-on applications that allow them to see the workings of technology and incorporate all learning styles. Since there are 6 computers readily available for "dissection" the students in Fundamentals of Technology should also "dissect" the computers to further increase their understandings of how technology works and why certain actions occur during use.

An important mechanism of learning is assessment. Assessment requires more than just taking a quiz and going over it. If there are issues of gray area, they need to be touched on before moving on to something new. A much more leaner focused assessment method will increase the chances of understanding and success.

Workers

Current Situation:

Students are not certain what the content of the course is and have different expectations prior to beginning the course. After learning the course content, they lose interest in the topics because it is not what they expected. Regardless of the courses chosen, students view the course simply as an elective with little to no value to their education. They do not understand the value of the course to their education, career development, and life processes.

Students become bored with the delivery method of the information because it is presented the same way every time. They have become comfortable with the setting and realize they can stray off course from time to time and see no consequences. The students lack motivation to do well beyond minimal expectations on assignments and to do well on the quizzes and the exam because of their awareness of the policies.

Students are not attending review sessions for Fundamentals of Technology during the week of the exam because they realize that their score is not a major concern and many feel confident that they will do well regardless. Students are scoring under 50% on the VoCats examinations with an average of only one person proficient.

Desired Situation:

Students will become aware of what to expect prior to enrolling in Fundamentals of Technology and select courses they want to be in. They need to also understand the value of the course to their education, career development, and life processes. This will stem down from the encouragement of the administration and ultimately the instructor.

Students should be excited about learning the fundamentals of technology such as the history of technology and the needs/reasoning for innovation. By diversifying the learning process through delivery methods to meet all learning needs, this could be achieved as well as the ultimate goal of being proficient on the VoCats exams.

Students should be required to attend a certain amount of review sessions per nine weeks for a small portion of their grade. Those who attend more than expected should receive extra credit in the form of points or privileges.

<u>**Gap Analysis**</u>

As I have mentioned throughout this document, the problem at hand is the lack of achievement by students on the Fundamentals of Technology course VoCats exam. Many factors and other problems within the organization affect the performance of the students and I plan to analyze the situation at each level of performance to demonstrate this. Since the Performance Analysis gave you insight to the actual problem, this section will focus mainly on the causes of the gaps in an effort to lead us to the strategies. *Appendix 2* will give a visual description of the gaps covered in this section.

Organizational Environment

At the organizational level, the main affect weighed upon the school and the course are the academic expectations, regulations, and funding by the federal and state boards. Each of these plays a role in decreasing the importance of the course and ultimately the success in the course.

Currently, the VoCats examinations are not a rationale for the schools' ABC ratings. ABC ratings are based solely on student performance in their core academic courses because they are seen as the essential skills for determining student abilities. As you will continue to see throughout this document, the lack of emphasis on the WDE courses and increased emphasis on core courses, increases the lack of performance by both the teachers and students because there is no motivation when things are deemed unimportant.

The decrease in funding stems slightly from the lack of performance in the WDE courses over the past couple of years, but the main reason falls in the philosophical views of the administrative figures on the federal and state boards. The amount of funds for WDE courses continues to decline and is partially to blame for the decline over the past few years as well. As funds begin to decrease so do the WDE courses and instructors in those courses. As this trend continues, the importance level of WDE courses in the eyes of the students will be down to almost none.

Despite the lack of emphasis and decrease in funding for the WDE courses, the state still requires WDE staff members to attend a certain number of staff-development training sessions per year to keep their license up-to-date. This could be viewed as a positive impact on the WDE department and the school as a whole, but the unfortunate

part is that the courses offered generally are not relevant to or content specific to each teachers' areas. This ultimately affects the teachers because they see the lack of value placed on the WDE courses by the state board.

Work Environment

The affects of the Organizational environment make their way into the work environment affecting the overall culture within the school, as you will see in this section as well as *Appendix 2*. The pressure from the federal and state boards to perform well in the core courses is the major cause of the lack of emphasis at THS for students and teachers to perform well on the VoCats examination.

This lack of emphasis is present in the fact that there is an enormous curve option placed on the VoCats scores to ensure that everyone passes and there is no minimum grade requirement on the VoCats for a student to continue on to another level of the same course.

In a school with such ample technological resources throughout the organization, it should be essential that students and faculty be able to maximize the use of the resources. With the lack of use of technological resources, the school ultimately suffers a terrible return on their investment. The initial purpose for buying the technology was to be used, but if there is no emphasis to use the resources, then they will sit and become obsolete leading to a future of staff members and students who are technologically unprepared to meet societal expectations.

Work Level

The major issue at the work level is merely the lack of reward and reprimands system for performance by the instructor of the Fundamentals of Technology course. The instructor simply finds it important that he supply students with the resources necessary to meet the objectives and then it is out of his hands once he passes it on. He is not concerned with the overall performance because neither is anyone else around him. His attitude stems from the culture within the organization as well as the state and federal regulations.

Unfortunately, to ultimately get the students to respond positively, there is a need for an increase in the amount of time spent lecturing and explaining information to the students as well as opportunities for the students to be actively engaged in hands-on

activities that will increase the learning experience as well as the attitude towards the work.

Worker Level

From the other three levels of performance the ultimate result bares down on the students. The Work environment has instilled in them that the WDE courses, in particular to this study, the Fundamentals of technology course is not an important part of their learning experience. The students are minimally motivated to perform well in the course and find the material to be extremely boring because the delivery method and the work performed is repetitive and not very challenging. As *Appendix 2* demonstrates, the majority of the students perform well on the mandatory computer competency exam, but they are not motivated to show their skills because of all the factors around them, and therefore are not performing as expected.

Intervention Strategies

Organizational Environment

Throughout the analysis of the Fundamentals of Technology course performance, we had an opportunity to evaluate each performance level, the applicable gaps, and the probable causes. In this section I plan to demonstrate the necessary strategies for overcoming the gaps we analyzed previously. Appendix 3 offers a visual display of the strategies which includes: The purpose of the strategy, the cause of the gap, the areas focused on in the strategy, and a synopsis of the Implementation Action plan.

Since the core academic courses are the center of the ABC guidelines and the chances of making WDE courses additional determinants are slim to none, I proposed that the VoCats scores could be used in other ways including:

- When ranking schools based on scores, the VoCats scores can be used as a tie breaker
- In showing overall success of schools the VoCats should be supplemented to the ABC scores posted
- Should be a "competition" among schools in the county, state, nation with incentives (trophies, gift certificates, etc.) for schools, teachers, and students who perform well on VoCats

- Each school to recognize achievement on VoCats when recognizing core course performance (postings, announcements, awards ceremonies, etc.)

These strategies will help in increasing the importance of WDE courses in general while not taking away from the importance of the core courses. There have been instances in ranking schools for the purpose of incentive money, where several schools met the same requirements and instead of an actual "winner" they all received the same ranking. Allowing the VoCats to break the tie will ultimately be an overall representation of the school's success and will give students and teachers in WDE something to aim for.

Funding is always a major issue when dealing with public education. Unfortunately, the connection between education and community business is often underrepresented. It is important that the businesses and schools in the community share a bond because each can gain from one another. Through setting up internships and other forms of co-ops, teaming up for events, and lobbying for support, THS would be increasing the chances of future donations in the areas of WDE, in particular technology.

The connections with businesses could also influence the other area focused on in the organizational environment, and that is the effectiveness of staff development for WDE courses. Currently, the courses focus mainly on integrating core course materials into a general WDE curriculum, but there is a need for content specific development both to train and to reiterate and demonstrate successful tactics. As seen in *Appendix 3* following two strategies could help benefit the areas of staff development:

- Instead of simply attending generalized staff development sessions open to all WDE faculty, there needs to be courses offered by category/division (i.e. each area of study such as computers, business, architecture/construction/masonry, etc.)
- On top of the generalized staff development, WDE staff in each category/division should also have county/state meetings to discuss issues, gain advice/suggestions from those who are achieving (share strategies), and discuss the overall curriculum with one person designated as a chairperson to relate findings back to entire WDE department and Board of Education personnel.

To increase the availability for offering such staff development, utilizing persons in business and industry to come in and offer their time for development strategies and interventions would be a great benefit to the courses.

Work Environment

In the work environment, the main concern is instilling the importance of WDE courses and technology in general. My strategies for accomplishing this include:

- More pressure from Principal for achievement including rewards and reprimand
    - 3 strike…i.e. 3 semesters and you're out
- Resources for improving the delivery of material/suggestions for improvement based on evaluations.
- Inclusion of WDE expectations in school goals
- There needs to be a school requirement for computer lab use. Each teacher must use the computer lab an average of 2 times per nine weeks or a total of one class period. This will be monitored by the lab sign-up log
- The administration's evaluations should also include a separate school evaluation for which monitors use of technology in instruction and learning
- Each teacher should be required to utilize the county provided web site creation site to post course descriptions, assignments, and other essential information. The web sites should also be regularly updated.

Let's take a look at the "3 strike" strategy. Since my other strategies suggest that ample resources be available for improving delivery methods and understanding, it is suggested that a policy be in place that teachers in WDE courses get three chances to meet the expectations on the VoCats. After the third strike, teacher is to be replaced. This strategy will make the teachers see the importance of what they teach, and give them incentive to perform well.

At the classroom work environment level, the main strategy need was for instilling inventive and rewards for achievement and consequences for lack of achievement in the classroom. From my observations of the Fundamentals of Technology course, there were no major forms of feedback and students were unsure of the expectations of the instructor because there was no praise for performance or reprimand for lack of. See *Appendix 3* for further explanation of the strategies for meeting those needs.

Work

      The work level emphasized the importance of a more efficient delivery method as well as a change in the type of work performed by the students. Currently, the course is only 20% instructor lead while the remainder of the course is for students to work independently. It is suggested that the instruction rate be increased to 50% and allowing for more hands-on application as stated in previous sections. WDE courses are real-world application courses that need to allow students to actually be engaged in the necessary activities needed to perform at a certain level. Research and book work are only half the battle.

Workers

      As *Appendix 3* demonstrates, the strategies suggested focus on the attitudes of the students and incorporating the mandatory computer competency test into content specific, elective path driven focus. The attitudes as mentioned in the performance and gap analyses are a direct reflection of the other levels of the organization. Please refer to the chart for more detail on the attitudes.

As far as the computer competency course, the content on the exam needs to be based on the focus areas of the students. In other words, there should be a test for:

- Students in computer/technology focus
- Business focus
- Health professions
- ETC.

      Having these options will give more relevancy of the computer competency course to coursework and real-life while also increasing the importance and perception of WDE courses in general because they will not only see the material in class, but also on an exam that is required for graduation.

Implementation Plan

      The purpose of this implementation plan is to describe the actual steps taken to successfully solve the current problem analyzed through the research. The implementation plan will discuss the following issues at each level:

- Objectives at the 4 Levels of Performance

- Methods and Procedures used to achieve the Objectives

- A tentative schedule for Implementation

- Projected (Expected) Gains in Performance

- Implementation Costs and Resource Needs

The ultimate goal is to increase the scores on the VoCats examination in the Fundamentals of Technology course. As mentioned in previous sections of this document, the current average of scores on the exam are just below 50% with an average of 10% of the students meeting proficiency levels (82% or above). The overall goal is to have each student in the course proficient within the next three years (assuming that the course will be given that long to exist if continued low performance). Over the next three years, the goal is for the average scores to increase by 11% per year (5.5% per semester) so that by the school year 2006-2007 the average score on the exam will be approximately 83%. Also, it is expected that an average of 24% increase in the number of students proficient on the exam will occur so that by the year 2006-2007 an average of 82% of the students taking the exam will be proficient.

Organizational Environment

Objectives:

- To make the VoCats examination a component of schools' ABC's to increase the general importance

- To increase funding and resources for WDE courses in NC

Methods and Procedures

The chances of making the VoCats exam an actual determinant of school ABC's are very slim, but using the exam as a supplement to the core ABC scores is essential in increasing the importance and ultimately the achievement on the VoCats. The following methods of implementation will be integrating into the NC educational goals:

- When ranking the schools based on core course scores, the VoCats will be used as a tie breaker

- In showing the overall success of the schools, VoCats will be supplements to the ABC scores posted.

- A competition between schools in the county, regions, and state with incentives (trophies, gift certificates, etc.) for schools, teachers, and students who perform well in reference to the VoCats exams.
- Each school to recognize achievement on VoCats when recognizing core course performance (postings, announcements, awards ceremonies, etc.)

To increase the funding and resources for WDE courses each county, school, and state should develop stronger relationships with local businesses. With these relationships, lobbying for funds in WDE departments will become easier and the community will recognize the importance of WDE courses. The following strategies will be put in place to meet this goal:

- Businesses relevant to each subject matter area build a tie including field trips, scholarships, funds for projects, donation of equipment, etc.
- WDE week in which representatives from local businesses visit schools to relate WDE coursework to real-life and show opportunities

Timeline

It is important that action to involve the VoCats exam be taken immediately and it is also important to begin creating relationships with businesses immediately as well. Both strategies will be on the same time schedule. It will take a semester to come up with the way to involve the VoCats but less time to begin building relationships though. All of the above suggested strategies should be utilized because they all have a major relationship with each other. Once the complete strategies based on the recommendations are in place (i.e. exactly how to implement) everything should be in place by the end of the 2004-2005 school year including strong community business ties.

Projected Gains in Performance

These actions will begin increasing the importance of the VoCats examination and should make the future of the courses stronger. With the increase in importance of the VoCats instilled in the organizational structure, it will ultimately increase the pressure placed on the schools, instructors, and students to perform well on the courses. This is the essential component for a quick turn around in performance.

Implementation Costs and Resources Needed

No actual costs will be faced because the majority of the incentive items can easily be donated by businesses. The incentives do not necessarily need to be monetary or high in value. The aim is simply to offer some sort of motivation to increase performance.

With relationships with businesses, the financial burden will be removed from the organization. Businesses enjoy giving to causes that make their image better and they also enjoy tax benefits. This reasoning is why everything will have a positive result from these strategies of implementation.

Overall these will help increase the effectiveness of the staff development as well as equaling the importance of integration of course material (i.e. core across WDE and WDE across core).

Work Environment

Objectives:

- To increase emphasis placed on WDE course performance (i.e. VoCats examination) in the schools plans, including faculty meetings, bulletins, and announcements.
- Utilize the abundance of technology

Methods and Procedures

The Strategies in place for the Organization and Environment will ultimately effect the emphasis on WDE course achievement but will also require:

- More pressure from the Principal for achievement including rewards and reprimand (3 strike…i.e. 3 semesters and you're out)
- Resources for improving the delivery of material/suggestions for improvement based on evaluations
- Inclusion of WDE expectations in school goals

Timeline

It is important that the above issues are addressed at the first faculty meeting of the school year to begin implementation strategies. The"3 strikes" program needs one school year to find the ample resources to offer for solutions as well as punishment methods. As far as including the WDE expectations in the school's goals must begin

immediately. A short committee meeting to revamp the overall school's goals is all that is needed to implement this strategy.

Projected Gains in Improvement

This result will ultimately affect the instructors. They will recognize the importance of performing in the content areas and offering the necessary tools to the students to meet the major goal of success on the VoCats examination.

Timeline

The timeline for this implementation is by the end of the 2005-2006 school year because the instructors are only given three strikes (one per semester). If there is not a change in performance by the third strike, then it is time to move on to another strategy.

Implementation Costs and Resources Needed

Fortunately for the sake of this implementation portion, the only cost affected here is time. It will take time out of personal agendas to discuss the school's goals and procedures for reprimanding lack of success on the VoCats. The resources for increasing the performance of the instructors during their "3 strikes" will already be budgeted for in the staff development budget.

Work Level

Objectives:

The only necessary implementation at this level is to increase the amount of instruction in the classroom from 20% to 50% and increase amount of hands-on application. In order to accomplish this a change in individual attitudes, management, and the work environment must be changed.

Methods and Procedures

The emphasis at the organization and work environment will aid in increasing the instructor's attitude toward the course (increase motivation, incentive, perception of students' feelings about the course, etc.). To increase the instructional time and hands-on application, the instructor will need to attend two staff development sessions that emphasize ways to instruct the Fundamentals of Technology course and the second involving hands-on application to the curriculum.

Timeline

This should also be in-line with the "3 strikes" because ineffective instruction will result in dismissal from the current position.

Projected Gains in Improvement

The ultimate gain will be an increase in the students' understanding of the material as well an increase in their perception of the importance of Fundamentals of Technology. Students will also become more motivated because they will be applying knowledge to meaningful applications.

Implementation Costs and Resources Needed

No actual costs here because the staff development budget is already accounted for, but whatever cost is in place would affect this. Time is the main cost because once again, the instructor will need to learn how to achieve the necessary tasks.

Worker Level

Objectives:

- To increase the attitudes of the students in reference to the Fundamentals of Technology course (view as important)
- To increase effectiveness of the computer competency exam relevant to WDE courses.

Methods and Procedures

No actual implementation plan is necessary at the worker level in reference to attitudes because the strategies in all other areas of the organization will aid in increasing the overall attitudes of the students.

The pressure and emphasis from the county, state, and school administration will help students realize the importance of the course.

Relationships with local businesses and the "WDE Week" will be a huge tool in increasing the importance of Fundamentals of Technology.

It is up to the instructor to understand the importance from all the tools available and relay it to the students indirectly through his actions and lessons and directly through his statements and policies.

There needs to be multiple forms of the computer competency exam based on student focus areas. In other words there should be a test for:

- Students in computer/technology focus

- Business focus

- Health professions

- ETC.

The different exams will focus on the same competencies, but make them relevant to their elective focus. This way, they are not only capable of being proficient on the exam, but also gain something useful for their area of focus, which will also increase their success in the coursework because they see the importance of the course and understand how to apply the knowledge to real-life.

Timeline

The timeline for this implementation is three years because the ultimate goal is to increase the performance of the students by the 2006-2007 school year. Even if other levels of performance do not touch on areas, the students will have an extra year to begin increasing scores or the course will be removed.

Projected Gains in Improvement

Student Performance on the VoCats will increase. The gain will come from an overall increase in their understanding of the importance of the Fundamentals of Technology course, because they will recognize the relevance.

Implementation Costs and Resources Needed

The main cost here will be to pay the instructional designers to re-design and develop the computer competency exam. The cost will have to be budgeted out at the end of the 2004-2005 school year to be included in the fiscal information for the 2005-2006 school year.