

Templated Web Page Training for Teachers

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Executive Summary

Pender County Schools, a school system in North Carolina, is implementing a web page initiative, requiring its teachers to create and maintain web pages for student and parent use. The purpose of this initiative is to increase student achievement through more effective and frequent parent access to student records and class information. The Instructional Technology Department has been charged with the training and support of the teachers on how to create and maintain a web page using the Edline system. The teachers have all created a page, but the level of maintenance has been consistently low, leaving many pages out-of-date and useless to parents. This team determined that the causes of this problem are the inflexibility of training sessions, the size of the sessions, the incentive for attaining the skills, the expectations from the decision-makers of the systems and the attitude of the teacher toward web pages and the training itself. After analyzing the causes of this problem, this team proposes to implement solutions including a small-group training initiative, increasing the incentives for teachers maintaining web pages, and a stronger mandate from the superintendent that includes a timeline for updating the pages. We have chosen this method primarily because of the analysis of the causes of the performance problems and a comparison of the proposed solutions. In numerous interviews with teachers, it was suggested that the size of the groups be reduced in order to provide for more individualized instruction.

Section I

Operating System Analysis

Pender County Schools is a low-wealth school system in North Carolina. The school system falls under the management of the North Carolina Department of Public Instruction (NCDPI), and ultimately the North Carolina State School Board who answers to the North Carolina General Assembly. Within Pender County Schools, the Superintendent is the head policy, operations and instructional leader and all other departments ultimately answer to him. Collaboratively, under the direction of the superintendent, the curriculum directors and coordinators develop a School Improvement and Strategic Plan each year. Below is a goal from the Strategic Plan that directly relates to the district's goal for the web pages:

All parents and community members will receive timely, accurate, and appropriate information as measured by results from a parent survey. District and school staff will identify and use various communication strategies and available technology (i.e. Connect Ed, websites, e-mail, brochures, etc.) as a means to announce events and share information with students, parents and the community. We will regularly update the Pender County Schools website.

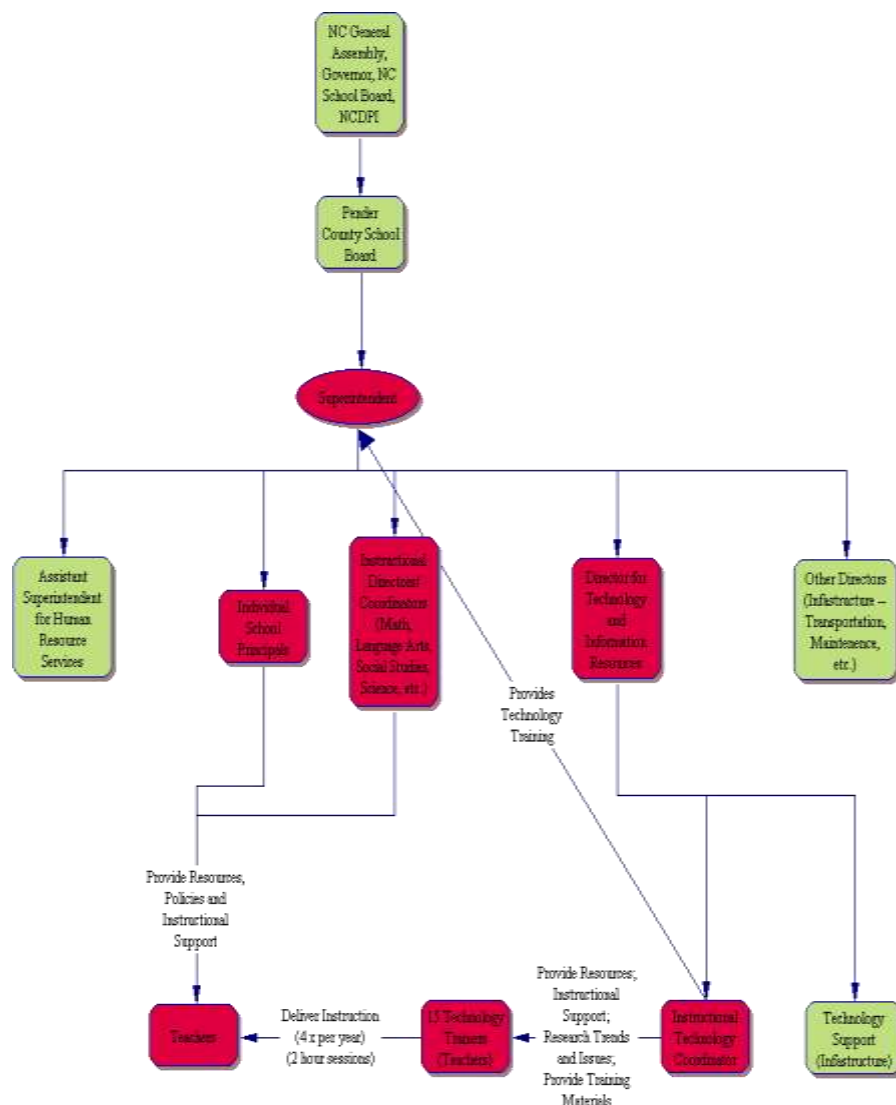
The operating system, the Information Systems and Technology Department is charged with the maintenance, upgrading and security of the infrastructure of the entire Pender County Schools network. Instructional Technology also falls under this subsystem. The Instructional Technology Department consists of one person, the Technology Coordinator, who is charged with "working with system-level technology staff, technicians, and network engineers as well as with school-based technology facilitators. This individual coordinates the implementation of the school system's instructional technology plan at the building level" (NCDPI 2002). He provides onsite assistance in the selection of technology resources; develops, coordinates and implements staff development opportunities; assesses and plans for new technology; facilitates planning and implementation of local and wide area networks; investigates and disseminates information on best practices; communicates with vendors; offers support to teachers, administrators and instructional directors; assists in the integration of technology into the educational program; and, serves as a source of information on trends, research, applications, and effectiveness of new technologies.

Currently, Pender County Schools has one county-wide Technology Coordinator and three full-time school-based Technology Facilitators, all at elementary schools. At their respective schools, the Technology Facilitators are able to assess and assist teachers in the implementation of various new technologies. The facilitators communicate with the Technology Coordinator frequently for updates on new technology and guidance on their own staff development offerings. At the other thirteen schools, there is a Technology Trainer, who is also a teacher at the school, who is paid a small stipend (\$400/year) to deliver eight two-hour workshops on four different topics throughout the year, developed by the Technology Coordinator. To ensure advancement in technology integration, the system, through policy, has required that teachers successfully attain three Continuing Education Units (CEU), or thirty

hours of technology instruction each renewal cycle (five years). Each year, a teacher is mandated to receive 0.4 CEU, or four hours, of technology instruction. In a five-year cycle, the teachers are offered twenty hours (2 CEU) of technology instruction.

There are approximately 700 teachers in the system and 300 other personnel, including administrators, support staff, maintenance, and cafeteria workers. The teachers are the target of most of the technology training, although initiatives such as a county-wide email system that was implemented this year required much more extensive training. The “train-the-trainer” method was selected in order to reach a much wider audience in a very short amount of time. The trainers at each school are also teachers, due to current budget constraints. Other systems employ Technology Facilitators in order to carry out these initiatives.

Organizational Chart – Pender County Schools System Structure – Technology Training



Problem Statement

The Technology department of Pender County Schools has introduced a new web page system this school year. Due to the mandate by the superintendent that all parents will be able to access a web link to get specific, customized information about their child and up to date information about their child's classes by Spring of 2007, it is essential that all teacher's update their websites on a regular basis. All teachers have an updatable web page template. The problem is that the teachers are not effectively updating and maintaining their pages. After review of the monthly reports of website updates, it appears that only about 30% of the teachers updated their web sites. The goal will be that at least 75% of the county teachers will update once a month as evidenced by the monthly reports of website updates. The goal should be achieved before the Spring of 2007.

Operating Systems Analysis

What is the system like now?

After the choice of web hosting companies was made, the Technology Coordinator accepted another position and was replaced. A webmaster was hired for the summer and the new coordinator was charged in June to develop instruction to be delivered in August. The Superintendent held to his mandate that all teachers would update homework assignments each week until, after pressure from teachers, principals and curriculum directors, he reconsidered the mandate. Instead, he mandated that all teachers create a static web page in order to learn the application, with the understanding that updating would be required the following year.

The Technology Coordinator (TC) developed and delivered a train-the-trainer model to fifteen Technology Trainers (TT) at each school. Training was then delivered to the teachers. In speaking with the all of the TT and several other early adopters, the TC assessed that time was the main point of contention for the teachers. Utilizing the four half-day (2.5 hours) county Staff Development days, he organized web page workshops. The initiative was to offer the teachers at least 2.5 hours of uninterrupted time, with a facilitator, to work on their web pages. The workshops were also held in three different areas of the county, considering the geography of Pender County, the feedback from teachers about traveling and the steady increase in the price of fuel in Fall 2005. These workshops were very well attended as evidenced by the Staff Development System enrollment roster. In most of the sessions, there were as many participants as computers in the venue. The feedback from the workshops were extremely positive, as evidenced by the Workshop Evaluations in the Staff Development System, most participants agreeing that the experience was a positive one for them. On one half-day, a fourth workshop was opened to accommodate the large overflow of teachers wanting time to work on their web pages.

The Superintendent, in an effort to assess the project, asked that a monthly report be taken regarding web page usage. The data is collected and analyzed by the Technology Coordinator. He used a report from Human Resources measuring the number of teachers at each school. He

compared this to the number of activated accounts. Another comparison is the number of teachers at each school (Human Resource Report) and how many teacher web pages had been created. The final assessment is the number of pages that have been updated within a two-week period. The report has been generated at three different times – the end of October 2005, the middle of December 2005 and the beginning of February 2006. Training occurred from September until November, depending on the school. In October, when training had occurred most recently, but had not yet finished, 55% of the pages had been modified and 35% of the pages had been updated within two weeks of the report. In December, 100% of the pages had been created and modified and 40% of them had been updated. In February, 100% of the pages had been modified, but updating had declined to the previous figure of 35%.

After speaking with the Superintendent, it was evident that he intends to move on with this initiative next year and intends to add parent accounts; so that they will be able to log in and receive current information about their children's classes. Eventually, he hopes for customized information to be released to parents regarding grades, behavior notes, etc. to increase parent communication and decrease the need for face-to-face meetings, which can be a scheduling problem for both teachers and parents.

The advanced stated objective of the Pender County Schools superintendent is that all teachers will be able to use the new web system in a manner that will allow parents to access web pages with personalized information about their child. In order for that objective to be achieved we had to first look at where the teachers were in their knowledge, skills and motivation to perform the first and most necessary step toward reaching that ultimate goal – updating their web pages on a regular basis.

Based on monthly reports of teacher web page access and updating it was found that only about 35% of teachers were updating their web pages on a regular basis. Although, 82% of the surveyed teachers, principals, school specialists, support staff and central service personnel reported having received the web page training.

The Pender County schools superintendent reported receiving some complaints from teachers, principals and curriculum directors about his original mandate to update the pages regularly with the reported reason for the discomfort with the mandate being a matter of time. This information was gathered by interviews with the fifteen technology trainers from the individual schools.

Our first task was to determine if, in fact, time was the main issue keeping the teachers from updating. After developing a survey using SurveyMonkey.com

The Results

Two hundred and ninety five teachers were asked to take the survey and two hundred and twenty five responded. While 55.2% of the teachers surveyed reported that time was an issue in updating their pages, the results showed that more than 66% of the teachers felt that they

would be more comfortable about making web pages with more training. 52% of teachers said they would definitely update more often if they were better at making web pages.

Present Activity

Presently teacher training of new technology skills consist of half day workshops with 2.5 uninterrupted hours devoted to learning and practice of new skills. In response to teacher issues about training the system made the following adjustments. A webmaster was hired for the summer and the new coordinator was charged in June to develop instruction to be delivered in August. The Superintendent held to his mandate that all teachers would update homework assignments each week until, after pressure from teachers, principals and curriculum directors, he reconsidered the mandate. Instead, he mandated that all teachers create a static web page in order to learn the application, with the understanding that updating would be required the following year.

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The feedback from the workshops were extremely positive, as evidenced by the Workshop Evaluations in the Staff Development System, most participants agreeing that the experience was a positive one for them. However, as the results of our survey indicate such training was not sufficient to give the teachers a comfort level and skill base that made updating their pages easy and effective. Teachers also reported that their preferred method of training was small group workshops. The workshops given were quite large with most of the session's records showing as many workshop participants as computers in the venue.

The county Technology Coordinator recognizes the gaps between the training given and what is necessary to achieve the goal. He, of course, has constraints as to what he can to implement due to money, time, and participant willingness but he is willing to implement a plan that addresses those constraints.

Side effects of present activity

Based on observation and data collection, we have identified that the current lack of web page updating has these side effects on the system:

1. Based on conversations with teachers and administrators, it is evident that there is a strained relationship between the superintendent and the school-based staff. The superintendent is being perceived as “wishy-washy,” or inconsistent, not knowing exactly what he wants when it comes to the web pages.
2. Numerous parent telephone calls have been made to principals and central office staff regarding the inconsistency of the web pages. They complain that some pages are up-to-date, while others are seemingly untouched.
3. From interviews with teachers, it is apparent that not updating their web pages has become sort of an inside joke, with many interviewees commenting, “I haven’t touch that thing in months!” Many have forgotten the skills that were taught in the initial workshops.
4. Because the web page initiative is being viewed as inconsistent, with no clear expectations, training has not been taken seriously. They are not aware of the advanced features of the pages that will be eventually introduced to them; therefore, they do not see the potential for student achievement and many refuse to adopt the innovation.

Relevant Resources

Pender County Schools has very limited resources, especially with budget and personnel. The budget is the federal budget, Enhancing Education through Technology (EETT), part of Title II. All of the Instructional Technology training is paid out of this fund, totaling less than \$30,000, according to the Technology Coordinator. As stated previously, there are twelve Technology Trainers and three school-based Technology Facilitators. The Technology Trainers are conducting these trainings in addition to a full load of classes with students. Only one Technology Facilitator does not teach a regular load of classes. The other two teach a part-time class schedule.

Every school has a lab with at least 25 computers and training is conducted there. All of the computers are networked and Internet accessible. The trainings are conducted in these spaces after the school day has ended, usually between 3:30 and 5:30 in the afternoon. Typically, the workday ends at 3:30, although some choose to work later, planning for future lessons. They are not paid for the Technology Trainings, although they are required to attend them. From the interviews with the teachers, there is resentment toward this extra workload. Many consider this to be unprofessional treatment and feel that the county officials should trust them to gain the need skills or compensate them for their time.

Fixed Constraints

There is a policy in Pender County Schools that requires 30 hours (3.0 CEU) of technology instruction for its teachers in order to maintain their licensure. These credits must be completed in a 5-year period.

Time is also a fixed constraint. Teachers are required and paid to work from 8:00 a.m. until 4:00 p.m. Any time after that is considered to be personal time to the teachers. No extra compensation or overtime is offered.

The budget is fixed. The Technology Coordinator receives a federal grant that, in the past 3 years has been cut in half and will be cut again next year. This is the primary initiative for the county and this budget is the only allotment for the web page training.

The training must take place under supervision or with some form of product assessment in order for the teachers to receive credit. There are strict state guidelines for teachers to earn CEU for staff development.

The number and type of trainer is a fixed constraint of the operating system because the technology staff at the school level is controlled by the building-level administrator. The Technology Division does not control this aspect of school management and some administrators do not value technology initiatives enough to hire a Technology Facilitator. Many prefer to hire other specialists such as Reading, English as a Second Language, Special Needs, or Teacher Assistants.

How the System is Managed

Pender County Schools is managed from the Superintendent through curriculum directors to the schools. Each summer, the Superintendent guides the curriculum directors to create a Strategic Plan. This is a list of county initiatives and some strategies for reaching those goals. The technology components of the plan are assigned to the Technology Division via the Director of Technology. The Technology Division is comprised of The Director of Technology, the Technology Support Coordinator and the Instructional Technology Coordinator. The Technology Support Coordinator manages infrastructure issues, while the Instructional Technology Coordinator oversees technology training design and implementation. The Instructional Technology Coordinator then designs the instruction, passes it to the Technology Trainer, where it is delivered to the teachers.

B. What should the operating system be like?

Method

In order to gather accurate data for the optimal system performance, we utilized some of the same collection methods as in the previous section. Interviews with administrators and teachers, surveys, web page reports, system structural analysis and informal conversation were all used.

In our interview with the Superintendent, he stated that the optimal performance would be that all teachers maintain and update their web pages daily, although he would settle for once per month. His main concern is that teachers post their homework assignments, due dates and

test dates on their web pages. Optimally, the teachers would share this vision with the superintendent and update their web pages at least monthly.

After reviewing the most recent Web Page Report (3/20/06) and reports from previous months, it was determined that less than 50% of the teachers were updating according to the Superintendent's expectations. Optimally, the superintendent would declare that all teachers would update at least once per month.

Ideally, each school would employ one Technology Facilitator to be in charge of teacher technology staff development. This would allow on-site training for all teachers at convenient times. It would also allow follow-up training to occur in a timely and effective fashion, because needs analysis could be done on a more regular basis. This would also allow for smaller group on-site training and one-on-one support. Having a Technology Facilitator would also enable someone to design and manage self-instructional modules and computer-based instruction.

Optimally, instruction would be developed to help teachers understand the uses of web pages for student achievement and how Edline pages can accomplish this. They would realize the need to learn the advanced features of the Edline web pages and implement them into their regular duties. This would include the creation of customizable web pages concerning each child's academic performance, allowing parents to access grades, behavior notes, and other types of individualized information.

Results

The real objective of the system is to equip the teachers with the skills and motivation to update and maintain their web pages frequently and consistently without negative feedback. Through the web page initiative, the system hopes to "bridge-the-gap" between parents and teachers, thereby increasing communication and ultimately – student achievement. The system is able to offer follow-up support for the teachers who need it.

In order to reach the optimal system performance, as stated above, we have determined that there are several needs (See Appendix A) that could be addressed. If these gaps were filled, the technology training system could run at an ideal level.

The system currently employs two Technology Facilitators. In order to maximize the amount of technology training and the flexibility of that training, the system would need to hire thirteen additional Technology Facilitators. This would also allow teachers to be trained during the instructional day and for support to be given during their planning periods for initiatives such as this. More training sessions could be offered, allowing for smaller group instruction and one-on-one support. These positions could also be used to develop self-instructional and computer-based training for teachers to allow more flexibility for teachers who lacked the time to attend after-school trainings or who were motivated to self-learn the material. This person would be able to follow-up to ensure that the material was actually learned through a variety of assessment methods.

In order to further the effectiveness of this training, an incentive plan will be developed and administrators will support this plan to encourage teachers to develop the web pages. Incentives could include, but not limited to, time or money.

With clear objectives and expectations from the Superintendent, the teachers will have a better understanding of what is required of them. In his weekly message, the superintendent can explain his intentions and objectives for his overall vision of teacher web pages.

Compensating teachers for their after hours training, either with money or time, is a way to maximize teacher support for the training.

Side effects of the updated web pages are:

1. PTA attendance from parents will increase because parents will be more aware of calendar events.
2. Student achievement will increase because parents will be more informed of their child's grades, daily homework assignments, project due dates, and upcoming tests.
3. Students will turn in assignments in a more timely manner because they will be more aware of due dates.
4. Teachers will be more technologically adept because of the skills learned through the advanced training.
5. There will be fewer parent-teacher conferences and teachers have more time to give to other instructional duties.

Optimally, the current resources should be adequate. The equipment is available. There are, although limited, training personnel in the each building, as well as early adopters who have successfully maintained their pages to assist in the motivation and training of the late majority. There is a small budget that should be able to cover additional training needs, if this is viewed as a priority by the system administrators.

The additional training will assist the teachers in attaining their CEU credits for the year. It is the hope of this team that the teachers will view the web pages as a necessary part of their parent involvement strategy and fully integrate it into their own systems.

In order to alleviate the stress of a superintendent mandate, it is optimal that the building level administration adopt the idea of the web pages and make it their own initiatives, thus building it into their own school improvement plans. By doing this, they will provide the necessary motivation and support for teachers building web pages.

C. Probable Cause of the Problem

A school system is rightly or not a hierarchical system. The line of authority appears to be very clear. Yet with such a large number of people at the so called lower rankings of this hierarchical, specifically teachers, that line of authority is sometimes difficult to enforce, which the superintendent has discovered with his original mandate. The responses of the people putting under the mandate are negative toward this particular objective. Part of this may just be the

psychological nature of humans towards being what to do, but other issues are very powerfully involved. The ultimate goal of the superintendent is that the teachers will update the web pages with personalized information about each child.

According to the survey, the teachers are not adequately prepared with the skills to update their web pages in general, let alone so specifically. There also seems to be a lack of understanding among the teachers of the advantages that such a system can offer to them. This system could save the teachers a great deal of time and stress by reducing parental conflicts, unexpected conferences, and phone calls home. Since time is such an issue in keeping up the web pages, the teachers have obviously not been shown the benefits of such a system. This motivation and understanding must be incorporated into any solution.

Time, although a fixed constraint of the system, is also another huge factor that is affecting the updating of teacher web pages. Presently, a vast majority of teachers feel under extreme pressure daily to meet all of the requirements of their job. Teachers must learn new programs constantly to keep up with school mandates. They are spending huge amounts of time dealing with discipline issues that would once have been sent directly to the principal. They must expand their teaching plans to include the needs of a variety of special educational needs that were once handled by special Ed teachers in a separate classroom. It is not a wonder that many teachers see any added requirement to their already overwhelming schedule as a negative thing.

Teachers also are not paid or compensated in any way for the time that they spend in training after school. With the intense hours required to fulfill all of the teachers' duties, added hours without pay or incentive are certainly not popular.

The resources of the Pender County School System are extremely limited when it comes to training. With only two schools having full-time tech facilitators most training falls to tech trainers who receive only a \$400.00 a year stipend for their time and efforts. This amount of money certainly does not inspire the trainer to do follow up with the teachers they train. Without follow up, a large amount of what is learned during training can be lost. It is similar to what happens to children when they are out of school for a whole summer. Invariably, there is a shift backwards in learned skills. Pender County's budget and personnel deficits have a real effect on how comfortable their teachers feel with the new technologies they are given.

CEU credit is an incentive to teachers to pursue further training but once the teachers CEU's are met, the incentive ends. Other incentives need to be in place by building level administration, as well as, county administration.

Teachers also responded that the training was inefficient due to the large number of people attending. They indicated that they would prefer small group or one-on-one training sessions. Another factor was the flexibility of the training times and the lack of follow-up opportunities.

Section II

Possible Solutions

The analysis shows that training would help the teachers to update their web pages more often. That is a strong number considering the cost to the teacher of the time and effort, and the lack of compensation. The design and implementation of more training therefore, is essential to accomplishing the goals at hand. It is important that the designer remember to include motivational considerations into their designing. If teachers can see that this web page program will actually help reduce their load they are more likely to accept it.

Given the causes of the problem, it appears that another viable solution is one-on-one help. Having a facilitator available to make suggestions and help side by side with teachers having difficulty. This solution would certainly take away from teacher discomfort with updating. Eventually, all current teachers should be able to update alone and only new teachers would need assistance and training.

Because time is another major cause of the problem, it is important to help teachers find the time to update their pages. This issue seems to be most relevant with the elementary schools because they do not have the planning periods that are available to the upper schools. Teachers' assistance are being cut in most elementary school classrooms which has added tremendously to the teachers load. Finding time to update a web page with such specified information within a classroom of K-6 students and having no planning period is virtually impossible. Instituting a web page day where the teacher is given time every month and administration or staff takes the classroom for them to let them update their page would be a definite asset in increasing teacher updating. It would also add an accountability to the teacher in getting there web page done.

In addition to the solutions stated above, recognition and praise are essential to all human beings. In order to encourage web updating by the teachers, an incentive program can be created to reward teachers for updating. Competitions are a good way to do this without a huge expenditure for the incentives although recognition of all teachers' efforts is essential. Competition rewards could be comp time, classroom supplies, donated luxuries, etc. A certificate of achievement for all teachers who update would be an asset to their resumes and is a cost effective way to congratulate teachers for helping the system meet its goals.

Mandate is always an option and it would certainly increase the number of teachers updating their web pages. The superintendent has already made the mandate once and adjusted this mandate because of teacher complaints. If the mandate came down with the realization that there was no option to change it, the goal might be achieved. The side effects of such an option will be thoroughly discussed in the next section.

Analysis of Solutions

Instructional Development and Delivery Capabilities

The best solution would be that a new training program and approach would be development and implemented. The development and delivery system consists of the technology coordinator and the technology trainers. The technology coordinator is in charge of the needs assessment and instruction design, the development of materials and the coordinating of the training for the trainers. The technology trainers are responsible for the delivery of the actual training. Also, they coordinate the times for when the training occurs. If smaller group instruction is needed, more trainers will be needed in order to offer more sessions.

The technology coordinator is a former teacher, therefore, has an understanding of the teachers' responsibilities. The technology trainers are all teachers and are more closely connected with the time, attitudinal, and motivational issues at the various school sites.

Currently, the training is being delivered and the teachers are held responsible for integrating the new skills into their daily responsibilities. Support sessions are being offered on each staff development half day in various regions of the county. These are accessible to all teachers due to the large size of the county. In order to offer more motivation for teachers to integrate this into their daily activities, someone (perhaps a building administrator) could review each teacher's web pages on a monthly basis.

Currently, teachers are not receptive to training initiatives; they consider them to be ineffective and only add to their daily workload. They do not see correlation between web pages and student achievement. Reactions from the teachers have indicated that they view pages as innovation rather than viable tool. They prefer to rely on "sound, research based instructional strategies." Teachers see web pages as a communication tool as impersonal and not a substitute for face-to-face parent conferences. With the introduction of incentives and support, teachers will become more involved with the integration, therefore, seeing the overall need for the web pages.

As stated earlier, each school has a training venue, a trainer, necessary equipment, and a small budget for the trainer. Each teacher has an Edline account and access to an editable web page that has been created for them. Every teacher has his own personal computer in his classroom in order to maintain his web page. Without a change in the delivery structure of the training, to allow for more small group, or more monetary resources being allocated to the training, it will be a challenge to research the desired objectives.

Policy constraints will offer external incentives; however, we are afraid that this will not be enough. Without the ability to provide truly customizable information to parents, teachers will not see a value in these web pages. Edline offers these features; however, teachers are lacking the skills in order to utilize this resource. They find it hard to update on a regular basis and feel more training is required, according to the survey results. We consider these skills to be prerequisites for using Edline's more customizable features.

Because of the nature of the skills that will be required in the future to provide parents with customized information, we feel that training is most certainly needed to solve this performance problem. Both refresher and new skills training must be developed in order meet these needs.

Comparing Solutions

We recommend from the solutions chart (Appendix B), that the best solutions are in order as follows: design and implement small group training, provide incentives for teachers who update their web pages on a regular basis, and superintendent mandate that teachers update their web pages monthly.

Design and implementing small group training is the highest priority because it provides the least amount of side effects. Because the teachers are already provided with technology training, they are accustomed to this format for receiving instruction. This would not require organizational changes because the “train the trainer” model is already in place. The equipment and space is not a consideration because both of these resources are available. The teachers will benefit from have smaller training groups, as well as, the trainers benefiting from the small instructional setting.

Providing incentives would be the next priority because time, environmental considerations, organization change, space, equipment, and benefits to both individuals and organization are affected in a positive manner. The only negative side effect would be the cost of the actual of the incentives and having someone oversee the process.

The Superintendent mandate, although effective and needed, causes more of the same ill feelings towards system administration in Pender County Schools. Without proper funding and training initiatives, a mandate by the Superintendent will be ineffective.

The Recommended Solution

The training program we suggest is an instructor-led, small group training consisting of no more than ten participants within a session. We have chosen this method primarily because of the analysis of the causes of the performance problems and a comparison of the proposed solutions. In numerous interviews with teachers, it was suggested that the size of the groups be reduced in order to provide for more individualized instruction. Rather than holding four - two hour instructions delivered by one person, we propose that sixteen, one-hour refresher courses and new skill instruction to be delivered bi-weekly by two different instructors. Teachers will be required to attend at least four of the provided instructional sessions, with the optional for attending more for more CEU credits.

To make this program more user-friendly, self-paced modules will be developed for teachers who prefer that method of delivery. This is to help teachers incorporate the training within their busy schedules. Teachers will be required to attend either the four instructor led seminars or they will need to complete the four self-paced modules. They will then be offered

the option to attend eight other seminars where they will be given time to extend their learning in a supported environment and receive up to 0.8 CEU's per year equal, to what they are receiving currently.

<u>What is the current situation?</u>	<u>Gap</u>	<u>What should be the situation?</u>
13 Technology Trainers who also teach a full load of classes; 2 full-time Technology Facilitators	13 Technology Facilitators	Each school has a Technology Facilitator who is charge of technology staff development
Teachers trained in technology initiatives after school with no compensation	Compensation for teachers to update web pages; time or money	Teachers compensated for after school training
Teachers trained in technology initiatives after school with no compensation	School-based training personnel	Teachers trained during instructional day, during planning periods
Teachers trained in large group setting with 20-30 people	More training sessions	Teachers trained in small group setting with 10-15 people
Teachers trained in large group setting with 20-30 people	More training sessions; school-based training personnel	Teachers trained in one-on-one setting
There is no real follow-up training	More training sessions; computer-based instruction; self-instructional modules; job aids; school-based training personnel	There are scheduled times for follow-up instruction
There are no incentives for teachers to update their web pages	Establish an incentive plan and persuade administrative support and implementation of plan	There are incentives provided by each school's administrative unit
Administrative support is varied between schools	Establish an incentive plan and persuade administrative support and implementation of plan	All administrators support the web page initiative
Teachers are only expected to have a static web page	Administrative mandate	Teachers mandated to update web page monthly
Teachers do not understand the overall goals and objectives of the initiative	Instruction on goals and features of Edline web pages	Teachers see the importance and power of the Edline web pages for student achievement