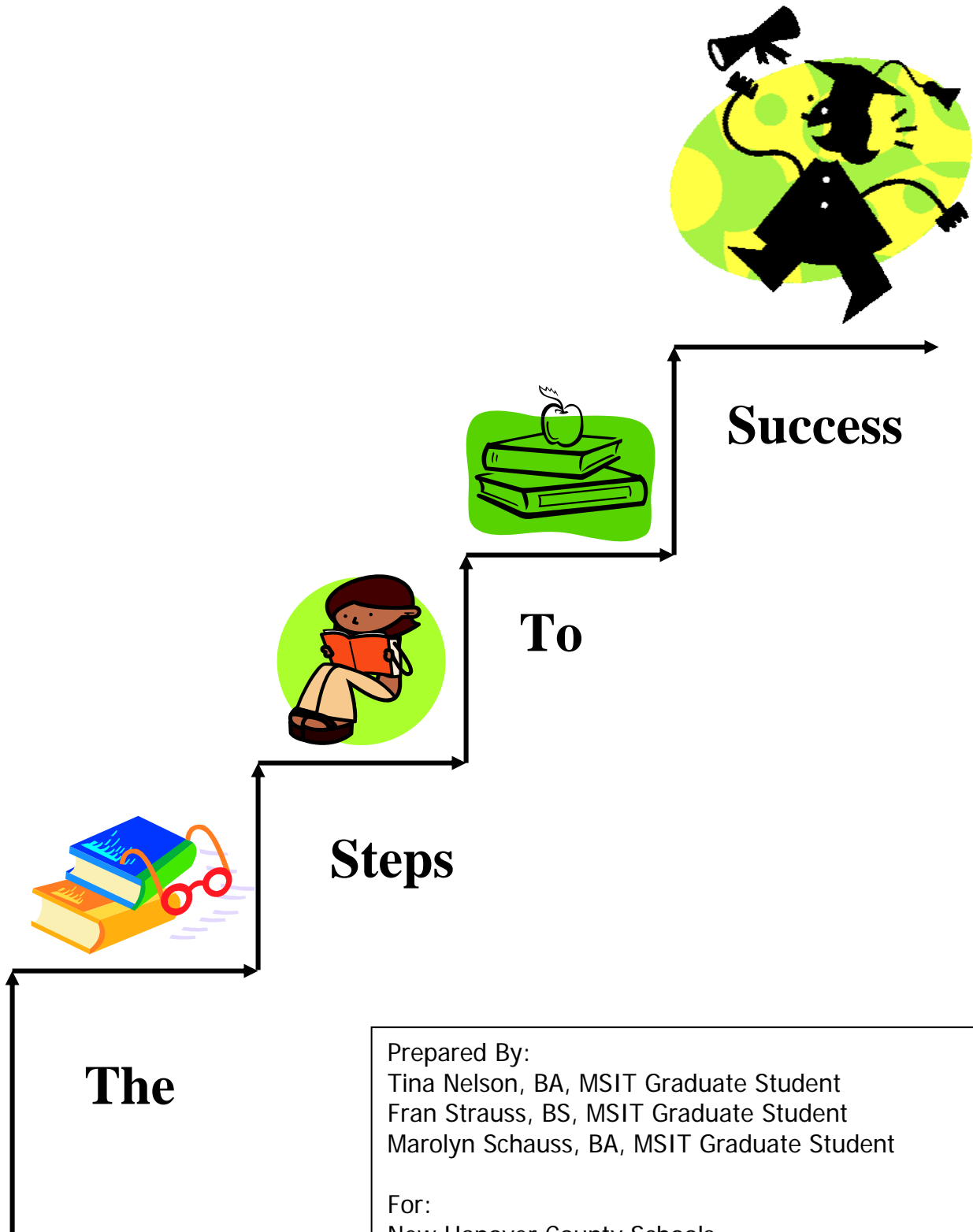


Steps to Success at LSHS



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New Hanover County Schools

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Executive Summary

Lakeside Alternative High School (LAHS), operating under the umbrella of the New Hanover County School system is located in Wilmington, North Carolina. Lakeside is currently a ninth grade recovery school for those students who do not pass the eighth grade EOG (End of Grade) test, in either math or reading. The Lakeside student is allowed to return to a traditional school and enter the 9th grade after earning the required four credits and passing the competency test at Lakeside. In January 2006, a meeting was held with key personnel for New Hanover County Schools to determine where an immediate need might be within the school system.

Test results show that 11% of Lakeside students are passing the repeat competency test in December of this year and most scores were lower on the second testing in December than on first testing in the traditional school. Surveys indicated a lack of emotional support from the central office which is affecting the attitudes of the teachers. Results of observations, interviews and questionnaires conclude there are three major factors contributing to the students low achievement scores. First: the reading skills of the students do not exceed the fifth grade level of comprehension and the majority of students maintain a second or third grade reading capability. Secondly: The teachers are not trained, nor skilled in the appropriate methods to differentiate instruction. There is no system in place to provide for pre and continuing assessment of student's scholastic capabilities. The student's are placed in the same group instructional environment, in which they failed in the traditional environment, resulting in low motivation.

Three solutions became apparent and include (1) creating a summer training program for teachers focusing on assessment skills and differentiation of instruction, (2) improving reading skills by implementing reading software and (3) creating a task force to visit and observe other alternative schools within the state who have a high success rate.

A summer training session for teachers became the optimal choice for developing the necessary skills of differentiation for the LSHS environment. Only by addressing individual student deficiencies at Lakeside can the EOG passage rate be improved.

This proposal was designed after careful analysis of the multiple issues at Lakeside Alternative School.

Section I:

Operating System

Lakeside High School is one of five high schools within the New Hanover County School System located in Wilmington, NC. The New Hanover County School System is under the umbrella of the State of North Carolina Department of Instruction. All school principals with the New Hanover County System, including Lakeside's, report directly to the Superintendent. The organizational chart is shown below.

Lakeside High has several operating subsystems within its walls and they include (1) a 9th grade recovery center, (2) a dropout recovery center, (3) a long term suspended APS, (4) a day treatment center and (5) a transition center. The focus of this report will be on the 9th grade recovery center. Students who fail the 8th grade EOG, in either reading or math, are allowed to retake the exam in May of the same year and again, if necessary, during the summer months. They are admitted into the 9th grade recovery center at Lakeside if they are unsuccessful at passing the exam after multiple attempts. During this *alternative year* they are to gain the necessary skills to successfully pass the exam and earn enough credits to allow them to return to the 9th grade in their regular high school.

The instructional develop sub-system at Lakeside begins with the teachers, who are often the subject matter experts and the instructional designers. Media specialists are also included within this group.

The delivery sub-system again includes the instructors, but also any hardware and software used to deliver the instruction. Classroom facilities and staff support, including office staff, are also included in the delivery sub-system.

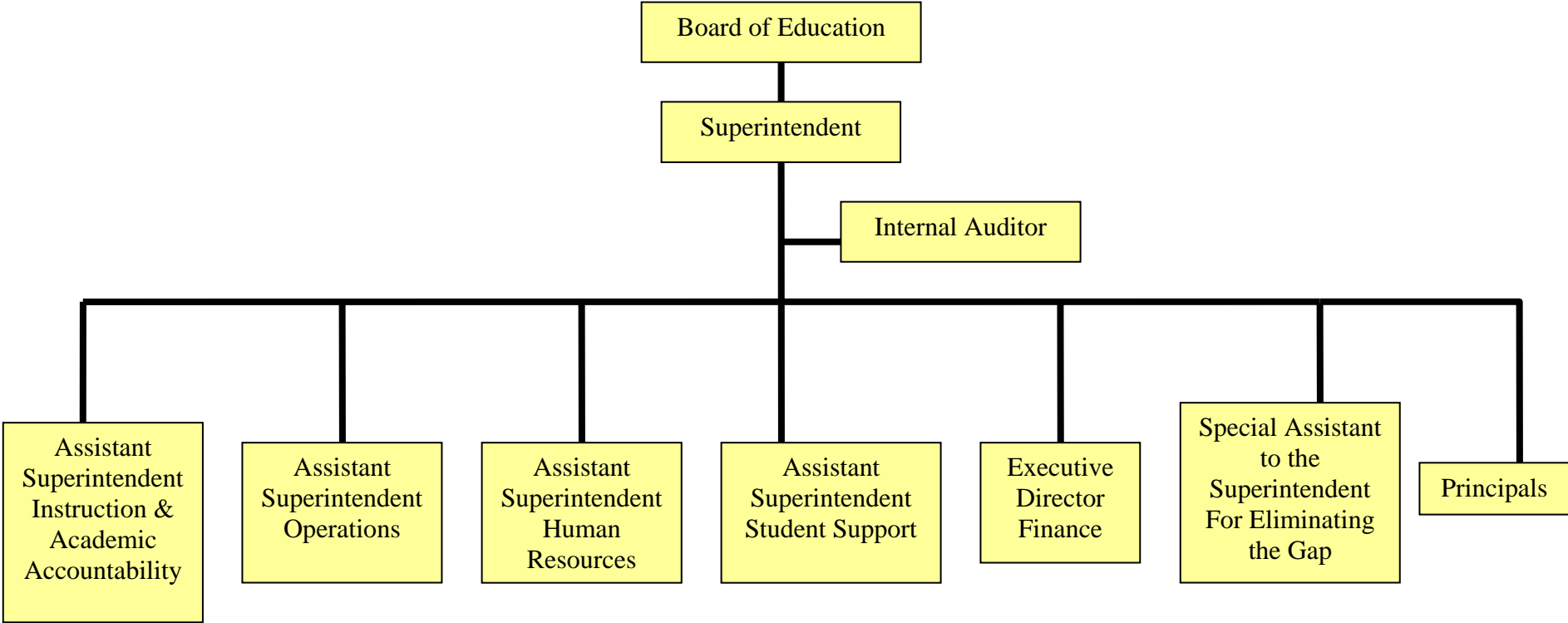
The resources of the 9th grade recovery center at Lakeside include a principal, a vice-principal, three 9th grade teams, a media/technology department and an elective group, consisting of physical education and computer application. There are 18 classrooms. Also on staff at Lakeside is a social worker, a nurse, a special education teacher and a reading specialist.

Students end up at Lakeside because they have failed within the traditional school system. A majority of the students come from low-income and minority families. Teachers report there is little intrinsic motivation among students to succeed resulting in a difficult learning environment.

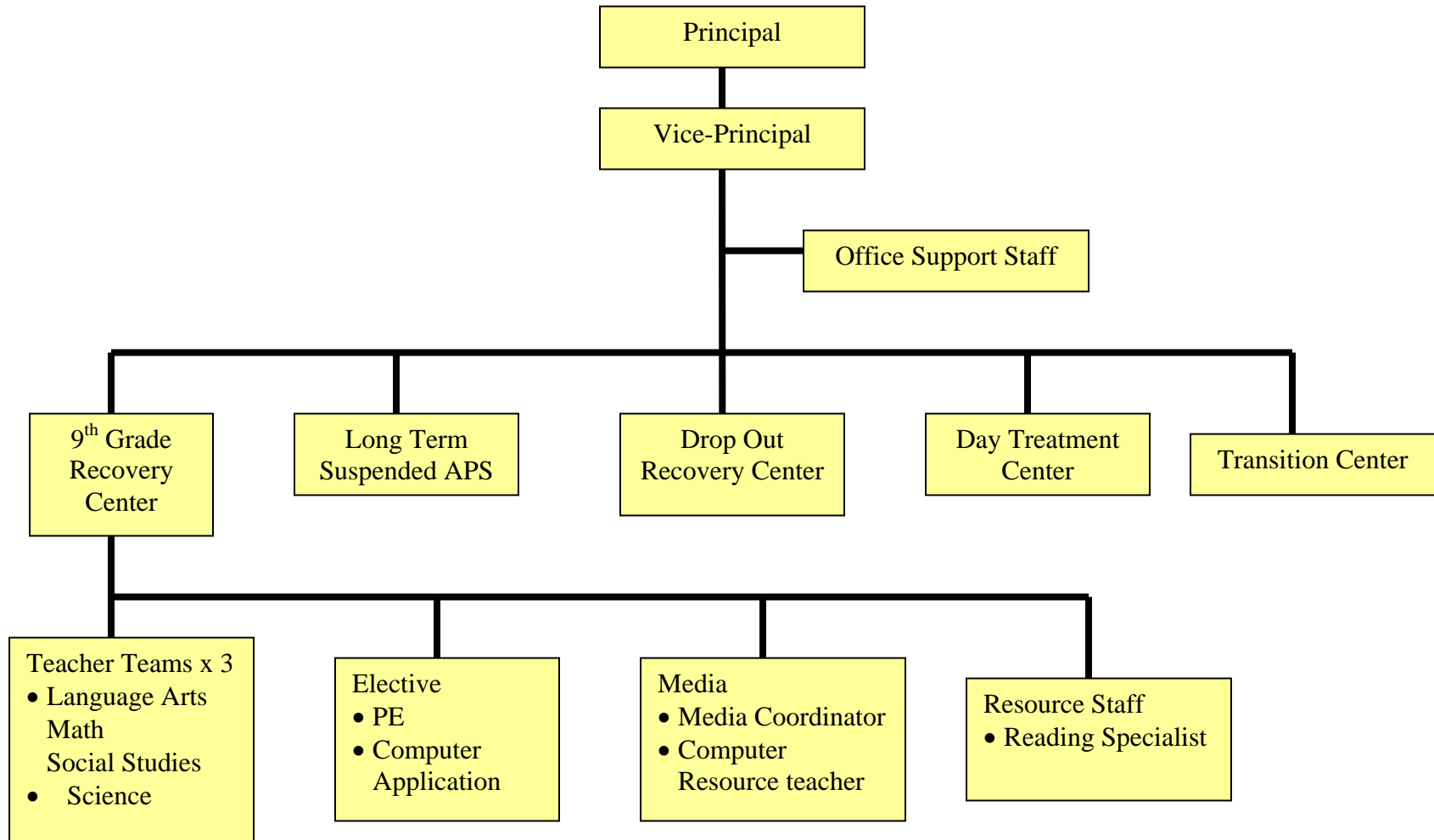
The mission of New Hanover County Schools *is to provide a high QUALITY education that prepares all students to be productive and contributing citizens of a global society*. Based on this statement, New Hanover County schools expect all students, including those at Lakeside, to achieve success. That success can be measured by the successful passage rate on exams. However, students

currently at Lakeside re-took the exam in December 2005. Only 11% of the students passed, leaving 89% who failed. This failure was compounded by the fact that most of the students scored lower on the more recent test than they did on the original test at the end of 8th grade. The initial goal is to improve the exam passage rate of Lakeside students to 90%.

New Hanover County Schools



Lakeside High School



	Questions	What is	What should be	Gap
1.	What are the real objectives of the system?	<ul style="list-style-type: none"> ▪ Focus at Lakeside has changed each of the 4 years it has been in existence ▪ 9 grade recovery school – passage of 8th grade EOG in both reading and math with return to traditional 9th grade school. 	<p>“The mission of New Hanover County Schools is to provide a high QUALITY education that prepares all students to be productive and contributing citizens of a global society.</p> <ul style="list-style-type: none"> ▪ 100% passage rate 	<ul style="list-style-type: none"> ▪ Lack of a consistent mission ▪ 89% failure on repeat EOG
2.	What are the present activities of the system that are relevant and how does the system rationalize the activities to meet objectives?	<ul style="list-style-type: none"> ▪ Traditional 7 period teaching environment with core subjects ▪ NC standard course of study – consistent throughout county schools including Lakeside ▪ Traditional teaching methods with emphasis on large groups ▪ Teachers currently teaching toward 9th grade EOG ▪ Teachers SME in their areas ▪ 11% passage rate on reading/math exam ▪ Teachers do not have planning periods ▪ Current teacher:student ratio 1:10 	<ul style="list-style-type: none"> ▪ Block schedule to match all other New Hanover County Schools ▪ Alternative teaching methods to address curriculum ▪ Individualized, innovative and interactive learning environment to address individual needs ▪ Individualized instruction in order to reach 9th grade curriculum goals ▪ 50% passage rate ▪ One planning period per day ▪ Flexible groups tailored to meet individual needs 	<ul style="list-style-type: none"> ▪ Lack of credits to return to traditional school Alternative methods of instruction not currently in use Lack of differentiation of instruction Out of the 50% goal passage rate, 39% have failed. Lack of planning periods Lack of student grouping according to needs

		<ul style="list-style-type: none"> No pre-assessment to evaluate skill levels of Lakeside students 	<ul style="list-style-type: none"> Evaluate current skill level upon entrance to Lakeside in order to make adjustments to individual needs 	Lack of pre-assessment
3.	What are the important side effects of the system's present activities?	<ul style="list-style-type: none"> Students have little intrinsic motivation 	<ul style="list-style-type: none"> Students recognize benefit of an education More positive learning environment 	Low motivation for attendance and achievement
		<ul style="list-style-type: none"> Cogitative overload -currently reading on 2nd-3th grade level; difficulty understanding textbooks, computer tests, word problems, etc 	<ul style="list-style-type: none"> Improve reading skills to 8th grade level 	Deficiency in reading skills which interferes with all learning activities
		<ul style="list-style-type: none"> Current student attendance rate 50% 	80% student attendance rate	Low student attendance
4.	What are the relevant resources of the system? (Personnel, budget, space, equipment)	<ul style="list-style-type: none"> Lowest # of students in a county school. Receives the least amount of funds as a result 	Improve funding per student due to special needs	Lack of funding
		<ul style="list-style-type: none"> Lakeside receives second-hand equipment from other county schools 	New equipment and software conducive to skill development	Poor quality equipment being used.

		<ul style="list-style-type: none"> Lightspan – computer program to access needs of the students and allows teachers to focus teaching methods; students cannot read well enough to take the test accurately (no learning disabilities. Would need IEP or 504 plan to receive help on tests) 	<p>"Formative assessment" can assess students' understanding of key concepts during the course of the school year, allowing teachers to adjust their instruction accordingly or prescribe extra help for students who need it, before the end of the school year--when it's too late.</p> <p>http://www.eschoolnews.com/news/showstory.cfm?ArticleID=5511</p>	Lack of evaluation method to assess skill level
		<ul style="list-style-type: none"> Skills Tutor – have old version – no longer aligned to current competency test 	Updated version of Skills Tutor	Deficient old software
		<ul style="list-style-type: none"> Recently upgraded server 	Able to meet current computer needs	No deficiency
5.	What are the fixed constraints of the system? (rules, policies and laws)	<ul style="list-style-type: none"> Lakeside receives a fixed dollar amount per student from the New Hanover County School System 	Consider alternative budget for Lakeside due to special needs of the population	Lack of funding
6.	How is the system managed?	New Hanover County Board of Education	See organizational chart	Lack of involvement from county office

Possible Causes of Performance Deficits

Lack of Skills/Knowledge	Low Motivation/Incentives	Management/Environment
Lack of reading skills interferes with students ability to perform optimally on test and within classroom environment	Students overwhelmed with unfamiliar words in class, textbooks and on tests.	Lack of a consistent mission
Lack of pre-assessment and/or method of evaluation to determine individual needs of	Traditional 7 period day results in 7 credits upon completion of the school year.	Lack of planning periods for teachers

<p>students. Currently placed into traditional group learning environment from which they have failed in the past.</p>	<p>Additionally limits students who successfully pass the repeat EOG from returning to traditional environment mid-term due to lack of 4 credits required for transfer.</p>	
<p>Lack of differentiation of instruction</p>	<p>No attendance policy</p>	<p>Lack of funding and support from the county office</p>
		<p>Outdated equipment and software</p>

The Problem

Lakeside High School, a school within the New Hanover County School System, is currently a ninth grade recovery school. The school was created three years ago as a result of the No Child Left Behind mandate as an alternative high school. It became a ninth grade center for the students who were unable to pass the eighth grade EOG in 2005-2006 or students who were expelled for behavioral issues from their school. The idea was for students to have one more year of intensive study, re-take the exam and transfer back into a traditional school. A large portion of the student population were failing in the traditional system and come from low-income families.

After 6 month of additional study, the first group of students re-took the 8th grade EOG (competency) test, without time limitations. Eleven percent of the students passed the repeat test and New Hanover County's goal is to improve the scores to 21% passage rate.

Operating System Analysis

A. What is the operating system like now?

To get a better understanding of the operating system and its processes, key personnel directly involved with LSHS were interviewed. Interview data indicates that the Superintendent and the Board of Education are the forerunners in the decision making for each school within the county. It was also established that unless major occurrences are happening, they (the Superintendent and the Board of Education) rely heavily on each schools administration to make the day to day decisions, and in essence, manage the schools. To understand the operating system even further, an organizational chart was examined, outlining each position within New Hanover County Schools.

Further results of the interview revealed that Lakeside has one principal and one assistant principal. The current student population is 150 with a teacher to student ratio of approximately 1:10. The main focus of the school is on the ninth graders who have not passed the eighth grade EOG. It is hoped to be a school of recovery to retrain the students so that they will be able to go on to a traditional high school.

One document that we were referred to explore, was the New Hanover County School mission statement posted on the county's website. It states: "The mission of New Hanover County Schools is

to provide a high QUALITY education that prepares all students to be productive and contributing citizens of a global society.”

Another stated objective of the system is for Lakeside to be a ninth grade recovery center. When Lakeside students pass the eighth grade EOG they may return to a traditional high school as ninth graders. This is the first year that Lakeside has operated as a ninth grade recovery center. Lakeside was established 4 years ago and has been given a different mission by the New Hanover County School Board for each of those four years. For example, one year it was an alternative high school for 9-12 grades.

The present activities of Lakeside include a traditional seven period teaching environment teaching to the NC standard course of study. Interviews indicate that Lakeside teachers are currently teaching toward the 9th grade EOG and are subject matter experts in their areas. Students are assigned to one of three teaching teams which includes Language Arts, science, math and social studies. The other three daily periods include PE and two electives. Each class is 50 minute in length and students change class to comply with the 7 period rotations. At the end of the school year, assuming successful completion of all classes, students will have earned seven credits towards graduation. Lakeside teachers instruct throughout the day which does not allow for a planning period during normal school hours.

All other high schools within New Hanover County are on the block schedule. In block scheduling, students take four subjects each semester. Classes are 90 minutes long and at the end of the semester, assuming successful completion, students will have earned four credits for graduation. The second semester of that same school year, another 4 courses are taken and upon completion another 4 credits are earned. At the end of the school year, a total of 8 credits can be achieved.

An important side effect of the present system is the high drop out rate of 50%. Assuming students began kindergarten at the age of 5 and have not repeated any grades, the average age of a Lakeside student should be approximately 14 years. The North Carolina law states that students must remain in school until age 16, however, New Hanover County does not have a required number of days that students can miss, unexcused, and still pass.

New Hanover County allocates funds based on student enrollment. LSHS has the lowest number of students in a county school, and therefore receives the least amount of funding. Historically

Lakeside receives second hand equipment, donated by other county schools that have updated their equipment. As a result there is little consistency in hardware or software that is within the school facility. The system also has a Skills Tutor program which is outdated as it no longer aligns to the current competency test (A.K.A. 8th grade EOG without a time limitation). Two positive resources of LSHS include Lightspan, a computer program designed to assess the needs of students and allow teachers to focus on appropriate teaching methods. The Lakeside server has recently been upgraded and is able to meet current computer needs.

The system of Lakeside High School is managed by the New Hanover County Board of Education. See organizational chart above. Through interviews and surveys, many stakeholders within the Lakeside High School system reported a lack of emotional support from the county office as major problem that must be addressed.

B. What should the operating system be like?

Lakeside High School's desired objectives should be in line with the New Hanover County Mission statement which states, "The mission of New Hanover County Schools is to provide a high QUALITY education that prepares all students to be productive and contributing citizens of a global society."

The present activities of Lakeside High School should include a block schedule to match other New Hanover County Schools. Primarily, it would allow for students who are able to pass the EOG at Lakeside in December, to earn the 4 credits necessary to return to the traditional environment mid year. In addition, it would allow for one more class credits each year. (Instead of earning up to seven credits, students will be able to earn up to eight.) As the schedule is changed to allow for block scheduling, teacher planning periods could easily come into existence.

Individualized, innovative, and interactive learning must be included at Lakeside. All student skill levels should be pre-assessed upon entrance to Lakeside and teaching should be directed towards those assessed deficiencies. With the teacher student ratio only being 1:10, flexible groups can be designed based on pre-assessment scores. Individualized instruction will assist in reaching the ninth grade curriculum goals.

The important side effects of the system's proposed activities would be a reduction in the drop out rate. The implementation of alternative teaching styles and student pre-assessment are designed to improve the reading skills of students. A direct side effect of this activity should result in higher student motivation for attendance and improved class achievement.

In order to improve the funding of the Lakeside system, New Hanover County Schools should consider adopting a separate budget policy for the unique needs of an *alternative* school. As an alternative school, teaching needs to be directed toward improving student deficiencies, not necessarily the 9th grade curriculum. Increased funding would allow for new equipment, consistent throughout the facility, and compatible software, to align with what is available in a traditional school.

The ongoing success of any *alternative* school is heavily dependant upon the support and guidance of the county office to which it reports.

C. Probable Causes of the Problem

Through several interviews with Lakeside stakeholders, direct observation, and referencing documented materials, our group graphed the exact description of Lakeside High School. The differences between "what is" and "what should be" gave us our gaps, which helped determine the probable causes of the low score phenomenon at Lakeside.

The New Hanover County School Board has changed the mission objectives of Lakeside High School for each of the 4 years it has been in existence. This has resulted in a lack of consistency and the continuing need to rebuild and redesign, stifling program development.

Students have failed because their individual scholastic needs have not been met. Improvement in EOG scores must be directly linked to the improvement of reading skills. Lakeside students are being pulled out of the traditional system for an *alternative* year and therefore teaching must be directed to the improvement of the measured deficiencies. Another cause is a lack of alternative teaching styles, including individualized and differentiated instruction. Teachers continue to instruct in the traditional manner. Without the pre-assessment measurements, as is currently occurring within the system, individual needs cannot be met or improved. A major result of not addressing current skill levels is that individual needs cannot be addressed and students cannot be grouped according to those needs.

Other causes of the current system failure include: (1) Lakeside's 7 period schedule does not align with the tradition block schedule of all other county high schools, which results in a lack of credits required to re-enter the traditional system; (2) the lack of a teacher planning period does not allow teachers time to address individual needs during school hours, and (3) lack of funding results in "hand-me-down" equipment which is often not compatible with new reading enhanced software required to improve reading skills.

Section II:

Possible Solutions

There are twelve possible solutions found to resolve performance deficits within the Lakeside system. Three significant performance issues have been chosen as a focus for immediate concern and solution implementation.

Solution 1: Provide a paid summer professional development seminar to instruct teachers in pre-assessment skills of students to differentiate and individualize the instruction provided.

Differentiation is a necessary solution to focus curriculum on student deficiencies and provide an avenue for commonalities between students to be acknowledged and built upon. Pre-assessment of the learners' capabilities and comprehension levels are necessary as preventative measures to avoid "end of the year" failure diagnosis. Pre-assessment determines the "who got it" by allowing placement of students early on into classes progressing at the same levels of comprehension of the student. Providing extracurricular activities directly relates to the environment of the students is a solution to give a sense of pride and understanding why education is necessary for the student's personal future. As an incentive to attend the seminar, teachers should be paid a nominal fee of \$250.00 in addition to other expenses which might be involved to attend the training camp.

Solution 2: Update and implement reading software. Software focusing on reading needs to be readily available on every computer. Newer methods for instructional programs need to be developed allowing intervention by the teacher to frequently determine the reading comprehension of the learner and focus the reading curriculum on student deficiencies.

Solution 3: Investigate other alternative schools within NC who are having success within their programs. The observation process would provide teachers with the opportunity to observe facilities successfully exchanging learning techniques and knowledge with students.

All possible solutions were analyzed through a chart listing time, environmental considerations, organizational changes, space, equipment and requirements, cost, benefits and loss to

the individuals, and the benefits and loss to the organization. (Refer to Appendix B) Other proposed alternative solutions are as follows:

4. *Evaluating and improving reading skills.* Combining Lakeside's Language Arts, reading specialist and computer resource instructors with new reading software will improve reading skill level.
5. *Initiate an attendance policy.* There is no attendance policy within the New Hanover School System. However, a separate policy needs to be developed for alternative schools. Students cannot learn if they do not attend.
6. *Tutoring programs.* Initiating a tutoring program is one possible solution where students from traditional high schools come to help Lakeside students with their studies.
7. *Increase the number of computers per classroom.* Increasing the number of available computers with compatible software will allow each student more "hands on" time.
8. *Elicit support from The Board of Education.* Promote all successes of Lakeside to the Board of Education, increasing the value of alternative schooling.
9. *Develop a 5th grade recovery center to catch reading deficiencies prior to middle school entry.*
10. *Focus curriculum on student deficiencies.* As an alternative school, the focus needs to be on individual student deficiencies in order to allow for successful re-entry into a traditional high school setting.
11. *Convert to block scheduling to match all other New Hanover County Schools.* Students need to successfully pass the EOG and obtain 4 credits to return to the traditional environment. The EOG is first offered in December, however, no course work is completed until the following May as Lakeside is not on block schedule.
12. *Provide more extracurricular and vocational activities for students.* These activities can give the students a sense of pride for being at school and promote authentic learning activities.

Analysis of Solutions

Lakeside is an alternative school where educational philosophies are unlike a traditional school program. Problems are addressed differently and solutions deviate from the norm. The following twelve possible solutions are discussed in terms of practicality and effectiveness.

Our number one solution is to provide paid summer professional development seminars to instruct teachers in pre-assessment skills of students by differentiating and individualizing the provided instruction. According to New Hanover County personnel and after many live in-classroom observations and teacher conferences, summer development seminars are of ultimate importance. Teachers currently are teaching in a traditional manner where the teacher is in control of the class and teaches from the screen. There is little or no interaction from the teacher to the student. Traditional instruction leaves but one option, a student “gets it” or the student does not “get it”. Lakeside students have already been in a traditional environment and the students did not “get it”. Teachers have to learn how to bring differentiation into the classroom, and communicate with the student on the student’s knowledge level and environmental expertise. Providing teacher summer workshops on differentiation will definitely represent a viable way to solve the majority of EOG math and reading comprehension deficiencies. Teachers are so overwhelmed with their day to day responsibilities there is no other time to allow for complete concentration from a teacher other than with summer camps. The Lakeside facility has all the necessary seminar equipment and tools, allowing for cost to be kept at a minimal while learning how to maximize a student’s higher level of comprehension. Every aspect of the teacher summer camp training is positive, practical and result effective.

Updating and implementing reading software is a result of conversations with key instructional personnel. Outside of the initial cost for the software every other aspect of the software solution is positive. Unfortunately, Lakeside currently receives only “hand-me-downs” from outside traditional schools whether hardware or software. Second-hand means “not state of the art”. Second-hand means, the knowledge or equipment is already stagnating before reaching Lakeside. Of all the school systems, we propose an alternative school needs the most recent equipment, the most recent software provided for student comprehension, and the highly qualified teachers because the uniqueness of learning is more challenged. There is little “norm” for an alternative school. We have discovered there are many software programs designed to strengthen reading skills for the students and our introduction to the “ReadOn” program is one reason we are inspired to consider new reading/learning software as a positive decision towards developing the understanding of reading.

When surfing the Internet for *successful alternative schools*, it is found there are many within North Carolina, particularly one in the Charlotte area. Visitation by Lakeside teachers to learn what is making other alternative schools so successful seems a viable and almost necessary solution. The only real problem became a time element, then the analyzing of how many teachers could go, when, for

how long, who was going to pay for the trip, would the school be available for review at the same time Lakeside teachers could assess the system? The questions became more and more and the practicality of the solution slid to the other side of the scale removing the balance of effectiveness. Charlotte's alternative school does have a successful history and probably should somehow be emulated, but the urgency of the Lakeside problem has to lend the solution decision towards teacher training in the summer for all teachers. Although a live visitation may not be feasible, phone calls or e-mails are an excellent way to begin the process.

Evaluating and improving reading skills to group students according to reading comprehension levels is costly in time and organization. The time to create a new evaluation program and train staff to implement the evaluations is outweighed by when, where and how? Immediate or any near future results are out weighed by many organizational changes which would have to be in place before new reading skill techniques could be evaluated. Evaluation is not practical though the results of any improved reading skill leads to empowerment for the student. At the present time there is not staff, nor the expertise to group students according to comprehension skills which would allow the student to develop at their own level of understanding. Evaluation is an effective method which is used in many constructivist environments but does not fit the framework for Lakeside's one year student turn-around.

Initiate an attendance policy. How do you learn if you don't go to school? An attendance policy needs to be incorporated. There are motivational issues at state, there are study habits to be maintained, there are subjects to be learned and related to. All these statements and more place attendance policies as a priority. Then we start the analysis, and the only positives have to do with the non requirement of space and equipment and a possible benefit to the student. There is just too much politics to establish an attendance policy and once again we need to turn our focus to the immediate problem of helping the student pass the eighth grade EOG and get back to the traditional school. We just cannot devote any more time to attendance policies trying to create some viable reasoning for priority. Although as an *alternative* school, attendance is required to learn.

Tutoring programs are a positive influence of caring whether a student comprehends a subject or not. The suggestion of having traditional students come to Lakeside and tutor the Lakeside students in their studies of math and reading is a win-win for everyone. Traditional students could earn an internship. Lakeside students are continually bonding with the traditional student, and the learning curve once again is on an upward scale. Environmental issues include how students from the traditional school will arrive at Lakeside, and if they drive their own car will they be insured for off

school time? And what about all the organizational changes that most assuredly have to take place because now two schools are involved and two different systems, e.g. block verses the year long? Other issues include where and how will the tutoring take place. We as designers have so many negatives we almost lost site of how positive peer tutoring might be. Traditional student tutoring is not practical but traditional student tutoring would definitely be effective. Final analysis places the tutoring solution as having low priority.

Increasing the number of computers per classroom is somewhat of a solution. School surveys indicate a need for more computers. A computer is only as good as the software it contains and we have already addressed the problem of out-dated software. The Board of Education needs to understand the only computers acquired for Lakeside are used computers being donated from other schools. There is little value in the logic of used computers. The students needing the most attention and the best equipment continue to receive the used equipment and the least amount of individualized time. More computers also mean more classroom drops and more drops require an improved wiring system, which means additional funding. A decision was made to de-prioritize computers as becoming an effective solution to help the students of Lakeside pass the eighth grade EOG. As previously stated, learning to use upgraded hardware and software will be instrumental in developing the future of students, but computer devices cannot solve the immediate problem of comprehension.

Eliciting support from the Board of Education is the starting point for our educational endeavor. Our findings concluded The Board of Education has not been informed of the positive advancements of Lakeside, or the potential of Lakeside becoming a fore-runner for students who need a little different “tweaking” to trigger the student’s comprehension skills. Lakeside could become the model alternative school. We believe it was the Board who created the statement

“If students do not finish school with the information skills they need to be productive members of society, they will never escape from the poverty into which they were born.That difference will continue to sap the strength of this county if it is allowed to continue”. (<http://www.nhcs.k12.nc.us/technology/techplan05/techplan05.pdf>)

It behooves anyone seeking solutions for student enrichment to involve the Board and keep the Board notified at all times of positive developments as well as critical issues. Regardless of student comprehension solution techniques, solicitation of support from the Board of Education is a positive endeavor.

Developing a fifth grade recovery center to determine reading deficiencies prior to middle school entry seems so logical and necessary.

“Surveys of adolescents and young adults with criminal records indicate that at least half have reading difficulties, and in some states the size of prisons a decade in the future is predicted by fourth grade reading failure rates. Approximately half of children and adolescents with a history of substance abuse have reading problems”.

(http://www.nrrf.org/lyon_statement3-01.htm)

We extensively discussed the pros and cons of the recovery center as a viable solution. A fifth grade center would help students by preventing a “passing over or passing on” situation and identify students at risk within the elementary years. A fifth grade center would eliminate the compounding of the illiteracy along with the difficulties arising from puberty. Then we realized the reading difficulties begin at the second and third grade levels. By fifth grade the lack of comprehension should be determined, and by eighth grade the ball cannot stop rolling and the student is all but incapable of any math or reading comprehension. The rote memorization is over and the in-depth learning by the reasoning curve has begun by the eighth grade. A 5th grade recovery center would allow the student to repeat the necessary math and reading units from second grade to grade five. Is a 5th grade recovery center practical for immediate development, probably not. We analyzed all the time and organizational changes and the endless approval of this committee and the Board of Education, it almost seemed as though we were trying to re-invent education. Would a fifth grade recovery center be more effective in the long run than an 8th grade center? Yes, most definitely so. The long range benefits to the student, the community, the environment would be endlessly positive, but since the development would probably take years and the organizational committees would be changing over and over again before an adoption of such a solution was implemented, we as designers once again decided not to prioritize a fifth grade recovery center.

Focusing curriculum on student deficiencies is tremendously time consuming and would require endless organizational changes. Idealistically when our first thoughts turned to the student, we could think of nothing but positive aspects to the solution of student deficiency foci. Then we began to understand this solution is not an immediate way to solve the problem. The problem goes much deeper than the statement “the students are failing the 8th grade EOG and actually doing worse on the second time of taking the test than the first time”. The problem is comprehension, and comprehension comes from a lack of reading skills, and the lack of reading skills goes back to the second and third grade losing touch with a student’s personal environment. We determined it would not be practical to make student deficiencies take priority as a solution. Deficiencies are a result of something else, and we need to focus on that “something else.”

Converting to block scheduling to match all other New Hanover County Schools is a solution for converting the proper credits needed to graduate from Lakeside and return to a traditional setting

earlier than might otherwise be allowed. When a student does not pass the EOG given at the end of the 8th grade unit of study, the student will enter the alternative 9th grade at Lakeside. Lakeside is the only high school in New Hanover County that does not function under the block system. Course credits at Lakeside are not granted until the successful completion of the entire school year. Block scheduling will allow for credits to be accumulated mid year, potentially advancing a student who might pass the repeat EOG given in December. It is easy to see the effectiveness of converting Lakeside to the traditional block scheduling. But the reality of “undoing” what is already functioning is not always easy and the coordination of staff and decision makers could take extensive amounts of time when those energies need to be applied elsewhere. We recognize as a team the value of conversion to unify the block system with all New Hanover County Schools but we have trouble prioritizing scheduling before reading or other comprehensive solutions.

Extra-curricular activities are an exciting diversion for capturing the attention of most any individual. A possible solution to instill motivation for the Lakeside student would be authentic learning. Activities outside the school environment, perhaps that of fishing or vocational activities, might instill a sense of worth, or self pride demonstrating staff and teachers do care and are willing to gift the Lakeside student with activities of interest in a hopeful exchange for consistent devoted study habits. Constructivist learning takes time, requires more space, organization and feedback, but statistically when a student can relate a new problem to a remembered solution, positive results do happen. Practicality is not in the offering for extra-curricular activities for the immediate future, but motivational techniques need always to be considered if esteem is to be realized.

It has been found after extensive analysis, the most expedient methodology to solve the problem of students not passing the EOG is to train the teachers in differentiation beginning summer 2006.

A. Instructional Development and Delivery Capabilities

As Lakeside High School belongs within the New Hanover County School system, there are multiple resources already available within the county to implement a summer professional program for teachers, should that be the approved choice.

First, New Hanover County can receive funding from the Federal government under Title II Act for teacher training. These federal funds are available for elementary and secondary educational needs and are highly targeted to low-income students and students with extra educational needs. These

funds can be used not only for the development of the program but also can provide compensation for the teachers who attend.

Teaching personnel are required to complete units of instruction for professional development per year in order to maintain a current teaching license. Many programs offered require teachers to donate their own time for completion. By offering \$250.00 as compensation, the hope is that more teachers will readily enroll. They may also be more encouraged to attend if it is offered during the summer, when they have more time to focus on the instruction presented. Also, words like formative evaluation and differentiation of instruction are the new “buzz” words in education, the way of the future in education, allowing student skills to be accessed, re-assessed and the instruction tailored to their needs, hopefully providing more incentives to learn new techniques.

The Professional Development Office of New Hanover County Schools can provide personnel and develop instructional materials to meet the objectives set within the program. County personnel from the Technology Department and Instructional Services have recently attended national conferences on differentiation of instruction, giving them materials and information ready for use. The county also has several instructional designers specializing in math/science, English and reading who are capable of providing input into the design process and who will be directly involved in delivering the instruction.

Possible Solutions	Time	Environmental Consideration	Organizational Change	Space Equipment Requirements	Cost	Benefit & Loss Individuals	Benefit & Loss Organization
Provide paid summer professional development seminar to instruct teachers in pre-assessment skills of students to differentiate and individualize the instruction provided.	+	+	+	+	-	+	+
Evaluate and improve reading skills	-	-	-	+	+	+	+
Update and implement reading software	+	+	+	+	-	+	+
Convert to block scheduling to match all other New Hanover County Schools	+	+	-	+	+	+	+
Focus curriculum on student deficiencies	-	-	-	+	-	+	+
Develop 5 th grade recovery center to catch reading deficiencies prior to middle school entry	-	-	-	-	-	+	+
Elicit support from the Board of Education	-	-	+	+	+	+	+
Investigate other schools within NC who are having success within their programs	-	+	+	+	+	+	+
Increase the amount of computers per classroom.	-	+	+	-	-	+	+
Provide more extracurricular activities for students (give them a sense of pride for being at school...can also promote learning by giving them authentic learning.)	-	-	-	-	-	+	+
Begin tutoring program, where students from traditional high schools come over to help Lakeside students in their studies.	+	-	-	-	+	+	+
Revise attendance policy	-	-	-	+	-	+	+

B. Comparing Solutions

Multiple possible solutions to the problem at Lakeside have been listed and analyzed in the preceding table. While many have merit, three solutions scored most favorably after analyzing their positive and negative effects. They include the development of a paid summer professional seminar, updating and implementing reading software and investigating other alternative schools within the NC system that are having success, particularly one school in the Charlotte area.

A summer professional seminar could be offered and conducted by current New Hanover County personnel. Offered to teachers at Lakeside and other schools within the county, the focus would be on ways to determine current skill levels of incoming students and ways to use that information to individualize and differentiate the instruction in order to best promote the educational development of each and every student. However, all Lakeside teachers should be required to attend this seminar. Due to the fact that the County already has the personnel available with skills to implement this seminar, this solution scores favorably as little time would be required to develop, school building are available for use over the summer and little organizational change is required in terms of new personnel or routines. The seminar would be developed to meet the ongoing requirements of professional development, and if approved for payment by New Hanover County, would increase its acceptance by teaching personnel. This choice would require not only support from the County office in terms of encouragement of new teaching styles to improve student learning, but also financially to ensure proper program development and encourage teacher support.

With new skills as developed in the summer seminar, teachers at Lakeside could use new software to improve reading skills of students. Poor reading skills have been identified as a major reason for failure in all aspects of life, from school work to job application skills. As stated in the New Hanover Technology plan, “if our children cannot read, they are doomed to fail and will continue to require support from this county far into adulthood”. We must provide our youth with the skills to succeed.

The saying, “two heads are better than one,” applies to the third favored solution of talking with other counties within the state of North Carolina who have success stories to share regarding alternative schools. Making phone calls to share ideas does involve a little time, however all other considerations are minimal.

Many of the other solutions required far more time and money in order to be successfully implemented. However, the ultimate key to success is to reduce illiteracy rates during the elementary years. Therefore, all of the solutions have merit and should be considered, even the idea of a 5th grade recovery center. The long term success rates may depend on reducing illiteracy, if the true mission in

New Hanover County is to “provide a high QUALITY education that prepares all students to be productive and contributing citizens of a global society.” (www.nhcs.k12.nc.us)

The Recommended Solution

Currently, the best solution, based on analysis, would be for New Hanover County to implement a paid summer development program, focusing on improving teacher skills in providing individualized and differentiated instruction for the variety of students in the classroom.

Teachers at Lakeside have already begun the process of learning. Many are participating in an information study group reviewing a book by Carol A. Tomlinson entitled, *The Differentiated Classroom: Responding to the Needs of All Learners*. Differentiated instruction requires teachers to adapt their instruction based on student differences in reading, learning preferences and interests. However, in order to teach to the required individual needs, individual needs must first be properly assessed. Not only is proper assessment required at the beginning of instruction, but it must be continually monitored throughout instruction. All of these teacher skills are needed to assess student skills, and will be addressed within the summer program.

The program would need to be instructor led and support materials can be provided either in print base and/or through Internet activities. First we would need to identify the major components of the program to be established. These components may include but are not limited to, learning styles inventory, assessment skills and individualized instruction. For each section we will need to develop an instructor’s and student manual, along with exercises promoting hands on activities within core subjects. As low reading skills have been identified as a major problem with Lakeside students, an emphasis should be placed on instructional activities within each core subject that not only address the learning objectives but also focuses on reading within the activity.

Lakeside High School has a certified reading specialist on the faculty who should be actively involved with presenting the materials and also be a source of further information and advice to teachers as they incorporate the material into their lessons.

The development system would be the Professional Development office of New Hanover County Schools and the program would be delivered by instructional design personal within the county. All materials developed that are not included in the student manual, should be kept in the library or teachers lounge for further reference. (See the organization chart located at the beginning of this document for placement of the Professional Development Office with the New Hanover County School System.)

Poor reading skills have been identified as a major cause of low performance for Lakeside students. In his statement before the House Subcommittee on Education Reform, Dr. G. Reid Lyon stated, "...the development of reading skills serves as *the* major foundational academic ability for all school-based learning. Without the ability to read, the opportunities for academic and occupational success are limited indeed. Moreover, because of its importance, difficulty in learning to read crushes the excitement and love for learning, which most children have when they enter school."

(http://www.nrrf.org/lyon_statement3-01.htm) New Hanover County has the tools to improve reading skills of their students through assessment and identification of individual needs in conjunction with the implementation of differentiated teaching styles. These changes, if successfully implemented, can improve student reading skills and lead to a more productive life.