

2017

# Observing the Effectiveness of Secondary School Science Instructors and the Instructional Climate through the Analysis of Student Performance and Feedback

Keesha D. Lewis  
*Gardner-Webb University*

Follow this and additional works at: [https://digitalcommons.gardner-webb.edu/education\\_etd](https://digitalcommons.gardner-webb.edu/education_etd)



Part of the [Educational Assessment, Evaluation, and Research Commons](#)

---

## Recommended Citation

Lewis, Keesha D., "Observing the Effectiveness of Secondary School Science Instructors and the Instructional Climate through the Analysis of Student Performance and Feedback" (2017). *Education Dissertations and Projects*. 202.  
[https://digitalcommons.gardner-webb.edu/education\\_etd/202](https://digitalcommons.gardner-webb.edu/education_etd/202)

This Project is brought to you for free and open access by the School of Education at Digital Commons @ Gardner-Webb University. It has been accepted for inclusion in Education Dissertations and Projects by an authorized administrator of Digital Commons @ Gardner-Webb University. For more information, please see [Copyright and Publishing Info](#).

# **Consultancy Project Executive Summary**

Organization:	Gardner-Webb University School of Education
Project Title:	Observing the Effectiveness of Secondary School Science Instructors and the Instructional Climate through the Analysis of Student Performance and Feedback
Candidate:	Keesha D. Lewis
Consultancy Coach:	Dr. C. Steven Bingham
Defense Date:	Friday, November 3, 2017
Authorized by:	Mr. Brad Craddock, Principal, R. B. Glenn High School

### **Amendment History**

<u>Version</u>	<u>Issue Date</u>	<u>Changes</u>
#1	10/6/2017	Initial version.
#2	10/10/2017	Grammatical corrections, citation corrections

## Approval

This consultancy project was submitted by Keesha D. Lewis under the direction of the persons listed below. It was submitted to Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

---

Dr. C. Steven Bingham, Faculty Advisor  
Gardner-Webb University

---

Date

---

Brad Craddock, Site Advisor  
Principal, Robert B. Glenn High School

---

Date

## Acknowledgements

*Who is he that overcometh the world, but he that believeth that Jesus is the Son of God?  
I John 5:5*

With the utmost gratitude, I thank God for the sacrifice of His son, Jesus! None of my success can be attributed to my own will, but to His.

To my family—my mother Ruth, and my brothers Thomas and Larry, thank you for your unwavering love and support. I can ascertain that your roles in my upbringing have prepared me for this journey.

To my best friend, Dr. Sharese Smith, thank you for over 13 years of sisterhood, laughs, and love! You have inspired me in more ways than you will ever know. The attainment of a terminal degree has not been an easy road to travel, but I am thankful to have traveled it with you. To my dear friends Jessica Langley, Latrone Brockett, and William Landis—thank you for your continued support and encouragement throughout this process.

To Dr. Cheryl D. Jackson Lewis, thank you for your guidance and your continued mentorship for me and countless others in the Ronald E. McNair Postbaccalaureate Achievement Program.

To my Elizabeth City State University Professors: I would like to thank the following instructors for a quality education, numerous recommendation letters, and wonderful insight: Dr. Josiah Sampson, Dr. Roberto Frontera-Suau, Dr. Gary Harmon, Dr. Margaret Young, Dr. Ephriam Gwebu, Dr. Jacqueline Poole, and Mr. Warren Poole.

To Dr. Cailisha Petty (North Carolina A&T State University): Your acceptance of me into the MAT Program was the catalyst for my success in graduate school. Thank you for making me an Aggie!

Mr. Brad Craddock, Latarsha Pledger, Tangela Wallace, Chad Tesh, and the rest of the Robert B. Glenn High School family—thank you for the opportunity to influence and teach our students. Thank you for being the basis of this project and my doctoral studies. You will forever be in my heart!

To my Gardner-Webb Family: Dr. Steven Bingham, Dr. Thomasina Odom, Dr. Jeffrey Hamilton, Dr. John Balls, Jay Human, Randa Ross, and Tiffany Lyles, thank you for making this one of the best experiences of my life! The skills I have obtained in this program will undoubtedly take me far!

## **Abstract**

Observing the Effectiveness of Secondary School Science Instructors and the Instructional Climate through the Analysis of Student Performance and Feedback.  
Lewis, Keesha D., 2017, Consultancy Project, Gardner-Webb University, Digital Commons/Teaching/Pedagogy/Instructor Effectiveness/Student Performance

The relationship between student performance and instructor effectiveness has been the subject of pedagogical studies for numerous years. The purpose of this project was to determine the extent to which student feedback could positively impact instructor performance, thus influencing student performance and achievement. Additionally, North Carolina instructors are evaluated based on student performance. The evaluations are represented by three colors: red, green, and blue. Instructors who are assessed as “red” are ineffective. Instructors who are assessed as “green” are minimally effective. Instructors who are assessed as “blue” are exceedingly effective. For a minimum of 3 consecutive school semesters, I provided my enrolled students with the opportunity to assess the quality of my instruction and my instructional environment. Based on the results of the survey, I made modifications to my instructional climate. The survey asked students to assess me on my effectiveness as an instructor, their preparedness on the state end-of-course exam, and the aesthetics of the classroom. The results of the survey led me to monitor the length and quality of lectures and focus on student-centered learning. In lieu of a traditionally lecture-intensive course structure, students are encouraged to explore and investigate on their own. Also, the aesthetics of the classroom were modified to include student artwork utilized as décor and music playing softly as students complete assignments. Prior to the implementation this consultancy project, I was an ineffective instructor for 2 consecutive years. During the inaugural stages of the consultancy project (2015), I received “effective” ratings. During the actual implementation of the consultancy project (2016 and 2017), I received “exceedingly effective” ratings.

## Table of Contents

1	Introduction.....	1
1.1	Project Purpose .....	1
1.2	Associated Documents .....	2
1.3	Project Plan Maintenance .....	5
2	Project Scope .....	8
2.1	Outline of Partnering Organization’s Objectives.....	8
2.1.1	Objectives .....	8
2.1.2	Success Criteria.....	9
2.1.3	Risks.....	9
2.2	Outline of Student’s Objectives .....	9
2.2.1	Objectives .....	9
2.2.2	Success Criteria.....	9
2.2.3	Risks.....	9
2.3	Definitive Scope Statement.....	10
3	Deliverables .....	11
3.1	To Partnering Organization.....	11
3.2	From Student.....	11
4	Project Approach .....	12
4.1	Project Lifecycle Processes.....	12
4.2	Project Management Processes .....	13
4.3	Project Support Processes .....	13
4.4	Organization.....	13
4.4.1	Project Team .....	13
4.4.2	Mapping Between Robert B. Glenn High School and Student.....	14
5	Communications Plan .....	15
6	Work Plan .....	16
6.1	Work Breakdown Structure .....	16
6.2	Resources .....	16
7	Milestones .....	17
8	Metrics and Results .....	18
9	Risks, Constraints, Assumptions.....	19
9.1	Risks.....	19
9.2	Constraints .....	19
9.3	Assumptions.....	20
10	Financial Plan.....	21
11	Quality Assurance Plan.....	22
	Appendix .....	24

# **1 Introduction**

## **1.1 Project Purpose**

Students are showing decreased proficiency on standardized test scores. According to Education First (2015), 29% of students enrolled in biology at Robert B. Glenn High School showed proficiency in 2015. This indicated that the instructional environment or the effectiveness of the instructor is not conducive to the learning process. The State of North Carolina is currently grading each school based on a variety of assessments (including the ACT and the end-of-course [EOC] test); these grades have had a negative impact on the morale of teachers and administrators. The purpose of this study looked at the effectiveness and methodologies of secondary science instructors as well as the tools and resources used (if any) to promote a more engaging learning environment. Feedback from students and administration allowed the instructors to modify and differentiate both instructional methodologies and tools as well as the instructional environment. According to Instruction (2014), proficiency is measured at a Level 3 or above. The North Carolina Department of Public Instruction (NCDPI) defines the levels of proficiency as follows:

Achievement Level 1: Students performing at this level have limited command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and will need academic support to engage successfully in more rigorous studies in this content area. They will need continued academic support to become prepared to engage successfully in credit bearing, first-year science courses without the need for remediation.



Achievement Level 2: Students performing at this level have partial command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and will likely need academic support to engage successfully in more rigorous studies in this content area. They will likely need continued academic support to become prepared to engage successfully in credit-bearing, first-year science courses without the need for remediation.

Achievement Level 3: Students performing at this level have a sufficient command of knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology but may need academic support to engage successfully in more rigorous studies in this content area. They are prepared for further studies in this content area but are not yet on track for college and career readiness without additional academic support.

Achievement Level 4: Students performing at this level have solid command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and are academically prepared to engage successfully in more rigorous studies in this content area. They are on track to become academically prepared to engage successfully in credit-bearing, first-year science courses without the need for remediation.

Achievement Level 5: Students performing at this level have superior command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and are academically well prepared to engage successfully in more rigorous studies in this content area.

They are on track to become academically prepared to engage successfully in credit bearing, first-year science courses without the need for remediation.

(Instruction, 2014, pp. 2-4)

This suggests that students who achieve minimum proficiency (Level 3) do not display college readiness. Only students whose scores are at Level 4 and above are those who are college ready.

### **Description**

This project involved measuring educator effectiveness (in the secondary school setting) through the analysis of factors surrounding student proficiency such as the EOC testing and student engagement surveys. Through evaluation of the educator and the learning environment, the audience (administrators and students) provided meaningful feedback on the classroom and instructional tools utilized. Students determined which tools increased engagement and which were not beneficial to the learning process. From the receipt of student and administrator feedback, the instructor modified the instructional climate and reevaluate student learning and proficiency.

### **Background Information on Institution**

Robert B. Glenn High school is a public secondary school located in Kernersville, North Carolina. Glenn High School currently has one principal and three assistant principals on its administrative staff. The school has a population of over 100 teachers and 1,600 students. As of August 2015, Glenn High School became a Title I institution.

Robert B. Glenn High School will be a state and district leader in preparing our students to be collaborative, civic minded, and responsible digital citizens. The mission statement is as follows:

- Every individual has worth and value.
- High expectations provide opportunities for each student to achieve maximum potential.
- Respect for human diversity is vital to accomplish our mission.
- A safe school environment is necessary for learning.
- Continuous improvement guides decisions at all levels.
- Access to emerging technology allows students and staff to interact and compete globally.
- Advocacy for all students is the responsibility of the school board, parents, school personnel, and community.
- School personnel will demonstrate a high standard of professional excellence.
- Parental involvement is in direct correlation to student success.
- Citizens expect the Board of Education to exercise good stewardship of all of its resources.

The staff of Glenn High School will establish a single school culture of data-analysis and reflection to address our diverse student population and unique needs effectively. We will provide rigorous and authentic academic opportunities that prepare students for post-secondary success. (Schoolwires, 2015, p. 1)

### **Background Information on the Study**

The observation of organizational climates stems back to the early 1960s.

According to Randhawa and Kaur (2014), Kurt Lewin, Ronald Lippitt, and Ralph White set the foundation for studies on organizational climate and participant effectiveness.

Their studies suggest that the organizational climate is the primary motivator that determines behavior and effectiveness.

### **Purpose**

The purpose of this project was to analyze the correlation between organizational climate and organizational effectiveness in the secondary school setting. Biology is the chosen content area because proficiency has not been consistent in recent years. The request of student feedback allowed the instructors to modify instructional methodologies and tools. This also served as a method of creating a more meaningful instructional environment that facilitated learning.

### **Organizational Challenges, Barriers, and Risks**

The results were determined upon student performance on standardized assessments. Students who are Limited English Proficient (LEP) and English as a Second Language (ESL) may have scored lower due to language barriers. Students who read below grade level were at risk of not achieving proficiency. Also, students who had inconsistent attendance rates were factored into test scores. Students who were perpetually tardy missed vital instruction time. These students were still permitted to take exams. The average scores provided to the institution do not indicate which students received sufficient instruction or those who received inconsistent instruction.

### **Benefits**

The results in this project exposed components of instructional methodologies that are ineffective. This enabled the instructor to modify the instructional environment. With the proper modifications, the instructor observed increased student engagement and proficiency on assessments.

#### **1.1 Associated Documents and Terminology**

- SAS EVAAS Student Performance Projections
- SAS EVAAS Teacher Effectiveness Reports

- Teacher Effectiveness Survey (Created in Google)
- NC EOC Scoring Guide  
<http://www.ncpublicschools.org/docs/accountability/testing/technotes/11eocwsguide.pdf>
- Achievement Level Synopsis  
<http://www.ncpublicschools.org/docs/accountability/policyoperations/assessbriefs/rawscoreachievelevel.pdf>
- Raw score conversion  
<http://www.ncpublicschools.org/docs/accountability/testing/technotes/51evelscieoc14.pdf>
- Achievement levels  
<http://www.ncpublicschools.org/docs/accountability/testing/achievelevels/eocbioald14.pdf>
- School Report Card 2015-2016  
[https://ncreportcards.ondemand.sas.com/src/reports/340382\\_2016\\_High.html](https://ncreportcards.ondemand.sas.com/src/reports/340382_2016_High.html)
  - **Proficiency:** students who have demonstrated proficiency have achieved a level 3 or higher on any North Carolina EOC.
    - **Level 1** – 69 or Lower (Not proficient)
    - **Level 2** – 70-79 (Not proficient)
    - **Level 3** – 80-81 (Proficient, but not college ready)
    - **Level 4** – 82-90 (Proficient, and college ready)
    - **Level 5** – 91-100 (Proficient, and college ready)
  - **Growth:** students scoring higher than projected levels. The determination of growth is based upon the mean as an indicator of the total progress students in each quintile made. The mean focuses upon the average of the difference between students' observed test scores and their predicted scores. The observance of a large negative mean would indicate that students within a group made less progress than expected. When a large positive mean is observed, it serves as an indicator that students within a group made more progress than expected. A mean of approximately 0.0 indicates that a group is progressing at an average rate compared to other students in the state. Standard error is taken into consideration when calculating the mean.
  - **Effectiveness:** a comprehensive compilation of student scores. The effectiveness of the educator is determined by three colors:
    - **Red:** Overall, students assigned to the teacher did not experience sufficient growth as a result of the teacher's instruction.
    - **Green:** Overall, students assigned to the teacher experienced sufficient growth as a result of the teacher's instruction.

- Blue: Overall, students assigned to the teacher exceeded expected growth as a result of the teacher's instruction.
- **EC** – Exceptional Children (formerly special education)
- **LEP** – Limited English Proficient
- **ESL** – English as a second language
- **EVAAS – Education Value-Added Assessment System:** Uses student test scores to measure educator effectiveness.
- **Projection** – a predicted score on the EOC. This projected score is based on student performance from Grades K-8.

## 1.2 Project Plan Maintenance

No substantial changes have been made to the overall plan. The original plan included using both the ACT and NC EOC as a tool for measuring instructor effectiveness, but both the candidate and the candidate's on-site advisor/mentor thought it would be more beneficial to focus on the NC EOC. The ACT is a culmination of content areas and does not focus on the instructor's specified content area. All changes were reviewed and approved by the on-site supervisors, Brad Craddock and Latarsha Pledger.

## 2 Project Scope

### 2.1 Outline of Partnering Organization's Objectives

#### 2.1.1 Objectives

- Increase student proficiency levels on the EOC for Biology.
- Use summative assessments (such as the NC EOC) to measure teacher effectiveness.
- Increase student growth (using the projected scores provided by SAS EVAAS)
- Increase instructor effectiveness.
- Modify the instructional environment to enhance learning.
- Use student surveys as a tool to measure instructor performance school wide and ultimately district wide.
- Improved school grade.

<b><u>Specific</u></b>	<ul style="list-style-type: none"> <li>• The utilization of mixed methods tools to measure the effectiveness of educators</li> <li>• Modify instructional methodologies and environment based on findings from qualitative inquiries</li> </ul>
<b><u>Measurable</u></b>	<ul style="list-style-type: none"> <li>• Increased proficiency on standardized exams will indicate an increase in educator effectiveness.</li> </ul>
<b><u>Achievable</u></b>	<ul style="list-style-type: none"> <li>• Increased numbers of proficient scores on the Biology End-of-Course Test (Level 3 or higher)</li> <li>• Substantial growth on the Biology End-of-Course Test</li> </ul>
<b><u>Relevant Results</u></b>	<ul style="list-style-type: none"> <li>• Increased student proficiency school-wide</li> <li>• Increased student proficiency district-wide</li> <li>• Improved school grade (determined by NCDPI)</li> </ul>
<b><u>Timely</u></b>	<ul style="list-style-type: none"> <li>• Qualitative (observations, questionnaires, fieldwork) and quantitative data (descriptive and inferential statistics) will be collected for 2 consecutive school years</li> <li>• Students begin qualitative assessment of instructor in June of 2016</li> </ul>

### **2.1.2 Success Criteria**

R. B. Glenn High School's success criteria will present itself in a myriad of forms: increased student proficiency, increased student growth, improved school grade, increased teacher effectiveness (evaluations).

### **2.1.3 Risks**

The purpose of this project was to mitigate risks for the partnering organization. Some of those risks include termination, demotion, decreased allotment for instructors, and a low school performance grade.

## **2.2 Outline of Student's Objectives**

### **2.2.1 Objectives**

- Increase student proficiency levels on the EOC for Biology.
- Use summative assessments (such as the NC EOC) to measure teacher effectiveness.
- Increase student growth (using the projected scores provided by SAS EVAAS).
- Increase instructor effectiveness.
- Modify the instructional environment to enhance learning.
- Use student surveys as a tool to measure instructor performance school wide and ultimately district wide.
- The candidate was responsible for the instruction of the students. The candidate was responsible for using the data provided by SAS EVAAS to improve student performance, either by growth or proficiency.

### **2.2.2 Success Criteria**

The success of the candidate's project was measured by determining the various levels of student proficiency or growth. The candidate is capable of analyzing the data herself or waiting for an official score from NCDPI.

### **2.2.3 Risks**

For the candidate, the risks could range from minimal to large. A minimal risk could include low marks on an evaluation or being demoted to teach a content area that is not considered to be a core subject (electives). A larger risk would include termination of employment. EVAAS uses student scores to determine teacher effectiveness. Teachers who are measured as "ineffective" for 3 or more consecutive years could face termination.



### Observing the Effectiveness of Secondary School Science Instructors and the Instructional Climate through the Analysis of Student Performance and Feedback

**Background:** Student proficiency and teacher effectiveness are determined through an array of assessments. The following risks have been identified, and will be rated as high, medium, or low based on the following criteria

**High Risks:** Include risks that result in the loss of employment and compensation. High risk factors that result in low performance evaluations; which could prevent the likelihood of being hired elsewhere in the future. High Risk factors could also result in job transfers due to poor performance.

**Medium Risks:** Include risks that result in demotions or decrease in compensation. For students, medium risks include course retention and failing grades. Students may have to attend remediation courses such as Saturday School or seek after school tutoring.

**Low Risks:** student failure is likely to result in low-confidence; which could impact the performance of students on future assessments

#### Risks for Teachers:

- Termination or transfer- **HIGH**
- Professional demotion (assigned to teach elective courses while participating in rigorous remediation program) - **MEDIUM**
- Negative evaluations and negative growth patterns that could impact future employment - **HIGH**

#### Risks for Students:

- Increased student retention rates due to failing grades and low test scores. - **MEDIUM**
- Remediation courses, tutoring, Saturday School - **MEDIUM**
- Negative impact on the confidence and self-esteem of students; which could affect their performance on future assessments. - **LOW**

## 2.3 Definitive Scope Statement

This project was responsible for narrowing the achievement gaps between low-performing students and high-performing students. Simultaneously, the aim of the project was to provide less focus on the external factors that inhibit student growth and proficiency (attendance, socioeconomic status), while proposing the idea that effective instruction combined with a welcoming environment can promote student learning despite adverse factors.

### **3 Deliverables**

#### **3.1 To Partnering Organization**

- Site advisor information (March 2015)
- DEOL Pre-Proposal Part A (April 2015)
- Student surveys created (June 2015)
- Student surveys offered (June 2016, December 2016, June 2017)
- Teacher Effectiveness Reports (SAS EVAAS, each October)

#### **3.2 From Student**

Teacher effectiveness deliverables are received from SAS EVAAS (via NCDPI). Updated teacher effectiveness reports from the previous school year are available in October of the current school year.

## 4 Project Approach

### 4.1 Project Lifecycle Processes

- **Strategies**
  - **Observe Teacher Effectiveness** through the use of EOC data, EVAAS projected data, and student feedback.
  - **Observe Student Achievement:** observe EOC growth for 3 years.
  - **Modify instructional environment** (climate) through results of student feedback/surveys
    - Aesthetics of classroom.
    - Soft music.
    - Student-centered environment with more hands-on activities.
  - **Modify instructional methodologies** based on results of student feedback/surveys
    - Lecture duration limited to 10-15 minutes.
    - Alternating cycles of brief lectures and modeling followed by independent student work and discovery.
    - Student-led instruction.
    - Facilitate learning.
- **Activities**
  - **Student surveys** – use student feedback from surveys to analyze the instructional climate. Responses from these surveys will allow the instructor to determine best practices and methodologies
  - **Student EOC Assessment** – following each semester, students will take the EOC test for biology. From scores received on the assessment, the instructor can determine his/her level of effectiveness.
  - **Analysis of Student EOC Assessment Scores:** Student proficiency is determined in the following 5 levels. These scores are used to determine teacher effectiveness.
    - **Level 1 – Not Proficient (69 and below)**
    - **Level 2 – Not Proficient (70-79)**
    - **Level 3 – Proficient, but not college ready (80-81)**
    - **Level 4 – Proficient and college ready (82-91)**
    - **Level 5 – Proficient and college ready (92-100)**
  - **Analysis of Student Surveys and Feedback:** Surveys allow students to anonymously rate the effectiveness on their instructor based on the following criteria:
    - Their preparedness on the EOC test
    - The rigor of the course
    - Aesthetics of the classroom (decorations, music, comfort)
    - Safety
    - Motivation received from instructor
    - Knowledge of instructor
  - **Instructor reflects upon craft**, makes modifications to instructional methodologies, classroom environment, and determines best/worst practices.
    - **Review EVAAS data**

- Review student surveys
- Review EOC test data

#### **4.2 Project Management Processes**

Phases of the project and permissions were granted by the administrative team. Any changes to the project and any data collected are/were reviewed by the curriculum coordinator and the principal of the organization. Although meaningful, the project is simplistic in its approach. Similarly, to the student surveys conducted at the collegiate level, the surveys mentioned within this project are offered to secondary science students at the end of every semester.

#### **4.3 Project Support Processes**

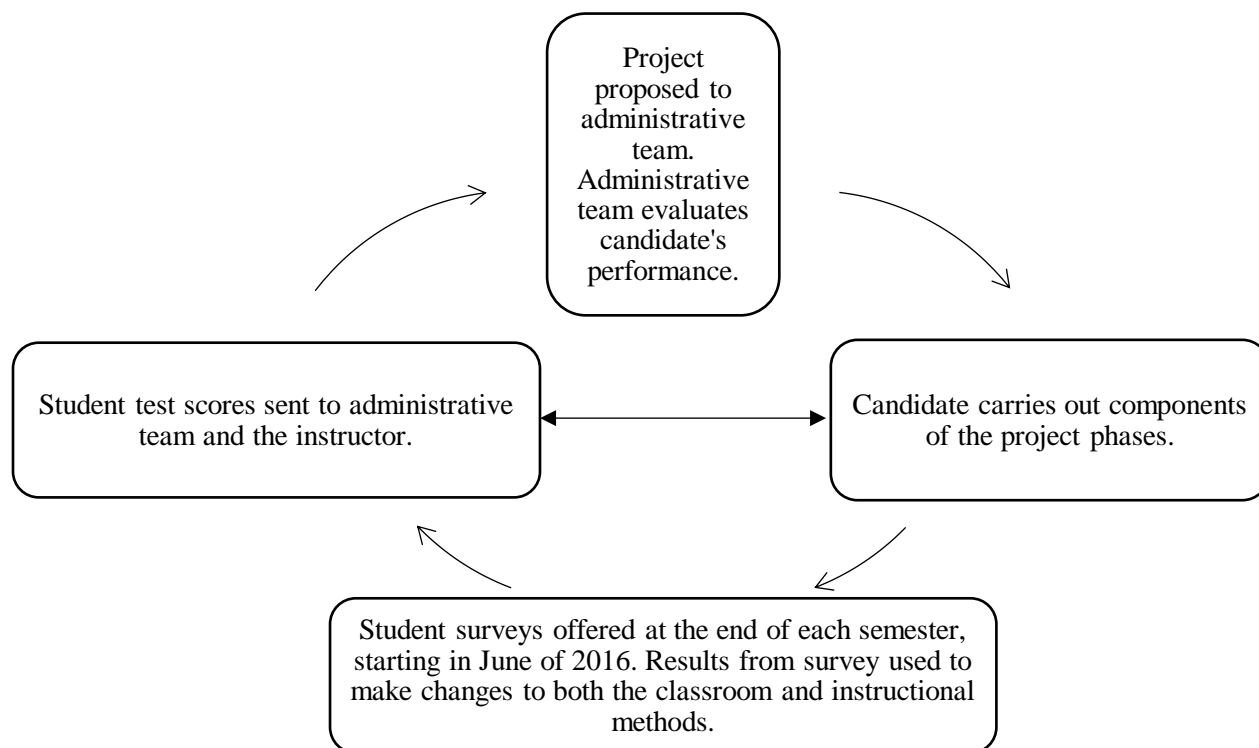
Any ideas, policies, or innovations created by the candidate must be approved by the appropriate administrator. Both the candidate and the administrative team are responsible for ensuring student privacy and safety. The candidate must not violate any privacy policies and is responsible for being knowledgeable of all laws enforced by the Winston-Salem/Forsyth County Schools.

#### **4.4 Organization**

##### **4.4.1 Project Team**

Currently, I am the only teacher piloting the student surveys in this project. In the very near future, other teachers will be offered the opportunity to use this survey in their classroom to determine their instructional effectiveness. The team includes participating instructors, curriculum coordinators, and the principal/ assistant principals.

#### 4.4.2 Mapping Between R. B. Glenn High School and Student



## 5 Communications Plan

**Principal, Brad Craddock:** Approves all phases of project. Received the Consultancy Project proposal in March of 2015 and provided suggestions for revisions. Also received a template of the student survey in May of 2015. Each semester, Mr. Craddock receives documents detailing the effectiveness of the candidate based on state assessment scores from the North Carolina Department of Public Instruction

**Latarsha Pledger, Instructional Facilitator:**  
Also received proposal to the project. Provided candidate with all necessary statistical data.  
Responsible for proofreading milestones.  
Approved to stand in place of principal in case of his absence.

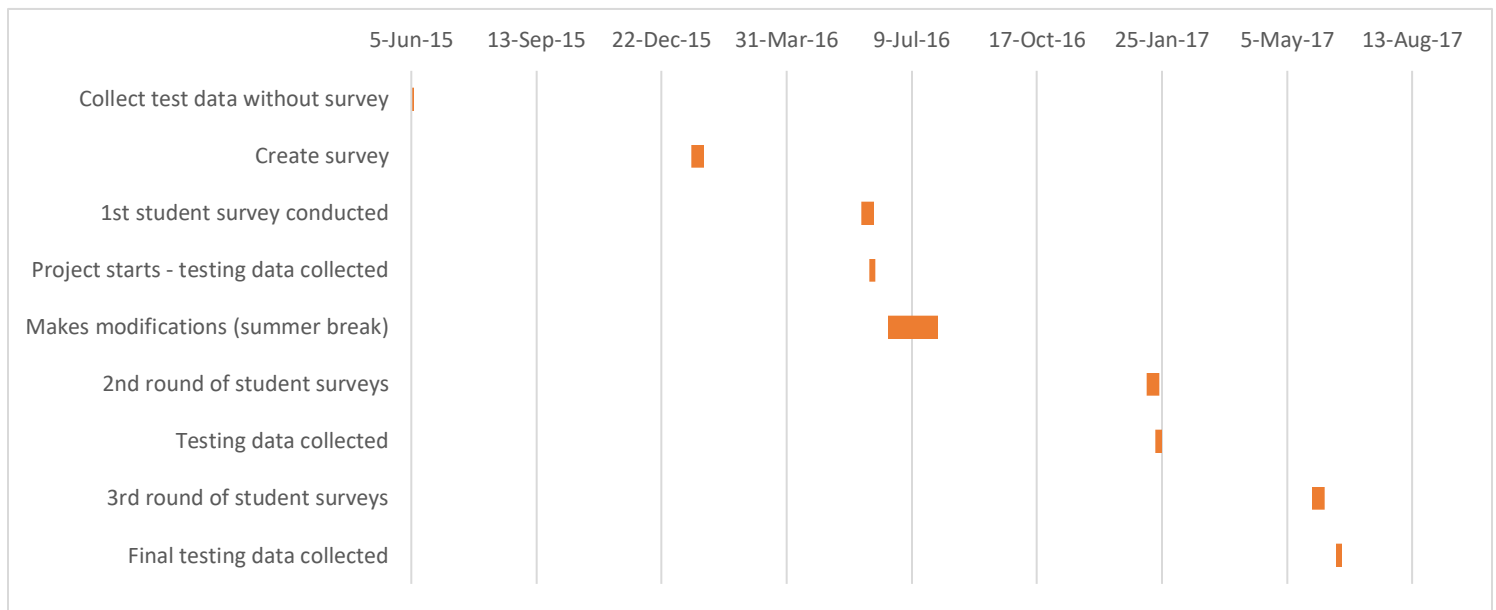
**DEOL Candidate, Keesha Lewis:** Responsible for carrying out the phases of the project. Responsible for protecting student anonymity when conducting surveys. Responsible for communicating all changes and phases of the consultancy project with both the principal and curriculum coordinator.

## 6 Work Plan

### 6.1 Work Breakdown Structure

- Surveys created by the candidate. Inquiries presented on the survey are to be reviewed and approved by administrative staff before being offered to students.
- Components of the student survey determined by the candidate, initially. As the project progresses (beyond the timeframe of the consultancy project), additional participants will be added to the composition of the surveys.
- Candidate analyzes effectiveness by comparing student projected scores to their actual scores.
- Reviews contents and results of survey to makes instructional and environmental changes to the classroom.

### 6.2 Resources



## 7 Milestones

- **Timelines**

- Student testing data collected – June 2015 (Control – No surveys conducted)
- **Surveys Created January 2016**
- 1<sup>st</sup> student survey conducted – June 2016
- 1<sup>st</sup> set of student testing data collected – June 2016
- Summer Vacation
- **2<sup>nd</sup> student survey conducted - January 2017**
- **2<sup>nd</sup> set of student testing data (EOC) collected – January 2017**
- **3<sup>rd</sup> (FINAL) student survey conducted – June 2017**
- **3<sup>rd</sup> (FINAL) set of student testing data (EOC) collected – June 2017**
- Milestone 10 and 11 completed by August 2017
- Consultancy Project ready for presentation - December 2017

- **Responsibilities**

- **Ensure student anonymity on student surveys. Do not include identifiers when obtaining information.**
- Ensure students know that participation in surveys is voluntary.
- Maintain a safe learning environment.
- Utilize information obtained from student in a professional manner.
- Utilize the information obtained from student to reflect upon and improve upon my instructional craft.

- **Expected outcomes**

- **Increased teacher effectiveness (EVAAS):** Teacher effectiveness is determined using a scale based on the standard deviation of scores across the state. There are three categories used to measure teacher effectiveness.
  - **Red – Does not meet expectations**
  - **Green – Meets expectations**
  - **Blue – Exceeds expectations**
- **Increased student effectiveness (EVAAS):** Instructors will use each student's projected EVAAS score and compare it to the scores earned to determine student proficiency and effectiveness. Instructors will also use reports generated by NCDPI (EVAAS) to measure student growth.



## 8 Metrics and Results

- Student anonymity was upheld. Surveys were optional and contained no identifiers.
- Surveys were offered to students at the end of each semester starting in January 2016. The dates of the survey data collection are as follows:
  - January 2016
  - June 2016
  - January 2017
- A mixed-methods approach was used to complete this project:
  - **Qualitative:** student survey questions required students to comment on the aesthetics of the learning environment.
  - **Quantitative:** teacher effectiveness reports (analyzed by SAS EVAAS), presented by NCDPI.
- **Results and modifications (to date):**
  - **Instructional time:** Instructional time limited to 15-minute intervals.
  - **Instructional style:** Uses narratives and scenarios in lieu of lecturing.
  - **Facilitation of learning:** Students are guided on the practice of metacognitive thinking. Students explore and learn to expound upon scientific concepts independently, while instructor monitors their progress.
  - **Aesthetics:** Décor consists mainly of student work. Music is played while students work independently.
  - **Improved School Grade:** 2015 (D, Low-Performing), 2016 (C-; Low-Performing Status removed), 2017 (C+)
  - **A substantial increase in teacher effectiveness and student performance.** This suggests that instructor effectiveness has a significant impact on student performance despite external anomalies and factors.
    - **2014 – Red – Did not meet expected growth** (consultancy project did not begin at this time).
    - **2015 – Green – Met expected growth** (consultancy project starts)
    - **2016 – Blue – Exceeds expected growth** (2<sup>nd</sup> year of consultancy project)

North Carolina Department of Public Instruction

**Report:** Teacher Value Added

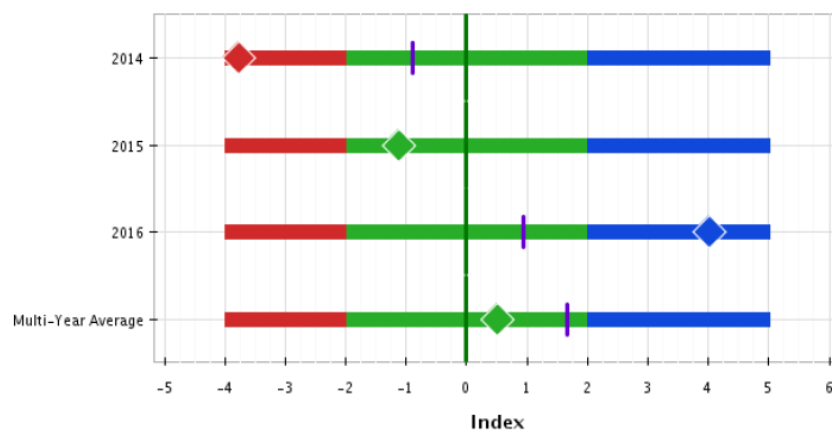
**Test:** End of Course

**School:** Robert B Glenn High School

**Subject:** Biology

**District:** Forsyth County Schools

**Teacher:** KEESHA LEWIS (5149988332)



## 9 Risks, Constraints, Assumptions

### 9.1 Risks

**Risk Analysis and Contingency Plan:** If a sufficient number of students do not have observable proficiency or growth on the North Carolina EOC tests for Biology, the ACT, and the North Carolina Final Exams by the completion of this Consultancy Project, the following plan is in place to ensure both the remediation of teachers and students.

#### Risks for Teachers:

- Loss of job
- Loss of privilege to teach content area (assigned to teach non-tested areas)
- Negative evaluations and negative growth patterns that could impact future employment

#### Risks for Students:

- Increased chance of failing the course
- Increased chance of repeating the course
- Negative impact on the confidence and self-esteem of students

#### Remediation Plan (Contingency Plan)

- Personal development workshops and trainings
- Study and review of content area
- Peer observations of instructors with higher student proficiency
- Modification of lesson plans and student activities
- Incorporate reading strategies into lesson plans
- Incorporate real-life examples into the instruction of complex concepts
- Differentiation of student assignments

#### Remediation Plan (Contingency Plan)

- Teacher-Student tutoring (before or after school)
- Differentiated assignment
- Reading coach
- Peer-to-Peer tutoring
- Saturday School (**Odyssey**: Online instructional coach)

### 9.2 Constraints

- Over the course of the consultancy project, it is expected for the demographics of the students to change for each course.
- Depending on the sections the instructor receives, there is likely to be an uneven balance of students enrolled in standard courses versus honors courses. Therefore, student performance is likely to fluctuate—although instructors should consistently see consistent growth.
- The projected performance of each student will vary.
- Not all students are projected to be proficient.
- Student performance and participation is contingent upon their attendance, cognitive level, reading level, and personal access to technology.

- Uncontrollable circumstances (i.e., death, illness) can affect the performance and achievement of both the instructor and the student(s).

### **9.3 Assumptions**

- The planning and execution of this consultancy project utilizes mixed-methods data collection in an effort to determine the correlation between educator effectiveness and student achievement.
- How students perform on EOC tests allows educators to measure their effectiveness to a certain degree.
- In order to determine true effectiveness, instructors will need to collect data for approximately two years. These data will consist of student test scores, surveys/questionnaires, and projected score reports provided by SAS EVAAS.
- NCDPI provides instructors with guidelines for determining their effectiveness based on student proficiency; Level 1 being the lowest, Level 5 being the highest and most proficient.
- The results from the EOC test will allow instructors to identify areas of weakness within his/her instructional norms.
- The results from student surveys/questionnaires will identify the need for instructional modifications as well as revisions to coursework and the physical classroom environment.

## 10 Financial Plan

- **There are no significant/additional costs necessary to complete the consultancy project.** Teachers are expected to reflect upon their craft and improve/increase student achievement levels without receiving an increase in salaries.
- **For the Winston-Salem/Forsyth County Schools Teacher salary schedule [click here](#).**
- North Carolina public school teachers receive no additional financial incentives for meeting or exceeding expected student growth.
- However, additional expenses *may* occur when instructors are seeking funding for materials used in hands-on activities and laboratory experiments.

### Laboratory materials that may require additional funding:

Experiment Name	Materials	Total Costs
<b>Liver and Enzyme Lab</b>	<b>Calf Liver</b> - \$5 per container. Approximately 1 container needed per semester (2 semesters),	\$10
	Bottles of <b>Hydrogen Peroxide</b> – \$1 per bottle. Approximately 5 bottles needed per year.	
<b>Egg Osmosis Lab</b>	<b>Eggs</b> (price and quantity will vary based on current market and class sizes)	\$30+ per semester
	<b>Distilled vinegar</b> at \$1 per bottle – 10 bottles	
	<b>Corn Syrup</b> at \$3 per bottle. Quantity needed will vary based on class size.	
<b>Strawberry DNA Extraction</b>	<b>Frozen strawberries</b> – prices may vary based on season, market value, and class size	\$30+ per semester
	<b>Zip-Loc Freezer bags</b> - \$6 for two boxes	
	<b>Coffee filters</b> - \$1	
	<b>Dawn dish detergent</b> – 1 bottle, at \$2.50 per bottle.	
	<b>Clear, plastic juice cups</b> – 50 cups for \$3	
	<b>Total</b>	\$70+ per semester; \$140 per year

## 11 Quality Assurance Plan

<b>Observe</b>	Students are perpetually scoring low on standardized EOC exams. Instructor performance and student performance are at an all-time low (even with a modified curriculum). There needs to be a protocol in place to address issues concerning instructor performance—which directly impacts student performance.
<b>Plan</b>	<ul style="list-style-type: none"> <li>At the end of each semester, teachers will conduct a voluntary, anonymous survey that measures the effectiveness of their classroom and instruction. Based on the results of the survey, instructors will modify their instructional methodologies, as well as the climate of their classrooms. Teachers who fail to meet expected growth after two consecutive years will be recommended for teacher effectiveness and remediation training. Student surveys will be used to measure teacher effectiveness. Student surveys will be used to determine which activities and classroom aesthetics (music, décor, etc.) are most beneficial to student learning.</li> <li>Once the appropriate instructional modifications have been implemented, instructors will compare the results of the survey with student's scores on EOC tests to determine if the results of the survey are valid.</li> </ul>
<b>Do</b>	<ol style="list-style-type: none"> <li>Conduct Survey (voluntary, anonymous). Spring 2016, Fall 2016</li> <li>Compare results of survey with student performance</li> <li>Use feedback from survey to modify classroom settings and procedures</li> <li>Use feedback from survey to determine if the instructor needs content remediation</li> <li>Use feedback from survey to modify instructional methodologies</li> <li>Sample Survey:  <a href="https://docs.google.com/forms/d/e/1FAIpQLScoe2VABPpPwRFv4Q_NChJIhfFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf_link">https://docs.google.com/forms/d/e/1FAIpQLScoe2VABPpPwRFv4Q_NChJIhfFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf_link</a> </li> </ol>
<b>Check</b>	<ul style="list-style-type: none"> <li>Compare and contrast the results of the survey with student scores on the EOC test</li> <li>Determine if feedback from student surveys and scores from student assessments is sufficient evidence to identify instructor ineffectiveness</li> <li><b>2013-14 school year:</b> Prior to enrollment at Gardner-Webb University</li> <li><b>2014-15 school year:</b> Consultancy project begins. Surveys created in Google Docs.</li> <li><b>2015-16 school year:</b> First survey conducted in May 2016. Second surveys conducted in December 2016.</li> <li>Test scores from the 2014, 2015, and 2016 school year shown below.</li> </ul>

	Teacher Growth Measures and Standard Errors				
	Year	Growth Measure	Standard Error	Index	Level
	2014	-1.7	0.4	-3.77	Does Not Meet Expected Growth
	2015	-0.6	0.5	-1.12	Meets Expected Growth
	2016	2.8	0.7	4.01	Exceeds Expected Growth
	Multi-Year Average	0.2	0.3	0.52	Meets Expected Growth
<b>Act</b>	<ul style="list-style-type: none"> <li>Implement use of student surveys at the departmental level (biology department).</li> <li>Implement the use of student surveys for teachers with low performance</li> <li>Implement the use of student surveys school-wide</li> <li>Implement the use of student surveys district-wide</li> </ul>				

## **Appendix A**

Observing the Effectiveness of Secondary School Science Instructors and the  
Instructional Climate through the Analysis of Student Performance and Feedback

Milestone 1

Keesha Lewis

Gardner-Webb University

**Problem**

Students were showing decreased proficiency on standardized test scores. According to Education First (2015), 29% of students enrolled in biology at Robert B. Glenn High School showed proficiency in 2012. This indicated that the instructional environment or the effectiveness of the instructor is not conducive to the learning process. The State of North Carolina is currently grading each school based on a variety of assessments (including the ACT and the EOC Test); these grades have had a negative impact on the morale of teachers and administrators. The purpose of this study was to examine the effectiveness and methodologies of secondary science instructors as well as the tools and resources used (if any) to promote a more engaging learning environment. Feedback from students and administration allowed the instructors to modify and differentiate both instructional methodologies and tools as well as the instructional environment. According to (Instruction, 2014), proficiency is measured at a Level 3 or above. NCDPI defines the levels of proficiency as follows:

Achievement Level 1: Students performing at this level have limited command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and will need academic support to engage successfully in more rigorous studies in this content area. They will need continued academic support to become prepared to engage successfully in credit bearing, first-year science courses without the need for remediation.

Achievement Level 2: Students performing at this level have partial command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and will likely need



academic support to engage successfully in more rigorous studies in this content area. They will likely need continued academic support to become prepared to engage successfully in credit-bearing, first-year science courses without the need for remediation.

Achievement Level 3: Students performing at this level have a sufficient command of knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology but may need academic support to engage successfully in more rigorous studies in this content area. They are prepared for further studies in this content area but are not yet on track for college-and career readiness without additional academic support.

Achievement Level 4: Students performing at this level have solid command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and are academically prepared to engage successfully in more rigorous studies in this content area. They are on track to become academically prepared to engage successfully in credit-bearing, first-year science courses without the need for remediation.

Achievement Level 5: Students performing at this level have superior command of the knowledge and skills contained in the North Carolina Essential Standards (ES) for Science as assessed at the end of Biology and are academically-well prepared to engage successfully in more rigorous studies in this content area. They are on track to become academically prepared to engage successfully in credit bearing, first-year science courses without the need for remediation.

(Instruction, 2014, pp. 2-4)

This suggests that students that achieve minimum proficiency (Level 3) do not display college readiness. Only students whose scores are at Level 4 and above are those who are college ready.

### **Description**

This project measured educator effectiveness (in the secondary school setting) through the analysis of factors surrounding student proficiency such as the EOC testing, the ACT, student scores on formative and summative assessments, and student engagement surveys. Through evaluation of the educator and the learning environment, the audience (administrators and students) provided meaningful feedback on classroom and the instructional tools utilized. Students determined which tools increased engagement; and which were not beneficial to the learning process. From the receipt of student and administrator feedback, the instructor modified the instructional climate and reevaluated student learning and proficiency.

### **Background Information on Institution**

Robert B. Glenn High school is a public secondary school located in Kernersville, North Carolina. Glenn High School currently has one principal, and three assistant principals on its administrative staff. The school has a population of over 100 teachers, and 1600 students. As of August 2015, Glenn High School became a Title I institution.

Robert B. Glenn High School will be a state and district leader in preparing our students to be collaborative, civic-minded, and responsible digital citizens. The mission statement is as follows:

- Every individual has worth and value.

- High expectations provide opportunities for each student to achieve maximum potential.
- Respect for human diversity is vital to accomplish our mission.
- A safe school environment is necessary for learning.
- Continuous improvement guides decisions at all levels.
- Access to emerging technology allows students and staff to interact and compete globally.
- Advocacy for all students is the responsibility of the school board, parents, school personnel, and community.
- A high standard of professional excellence is displayed by school personnel.
- Parental involvement is in direct correlation to student success.
- Citizens expect the Board of Education to exercise good stewardship of all of its resources.

The staff of Glenn High School will establish a single school culture of data-analysis and reflection to address our diverse student population and unique needs effectively. We will provide rigorous and authentic academic opportunities that prepare students for post-secondary success. (Schoolwires, 2015, p. 1)

### **Background Information on the Study**

The observation of organizational climate stems back to the early 1960s. According to Randhawa and Kaur (2014), Kurt Lewin, Ronald Lippitt, and Ralph White set the foundation for studies on organizational climate and participant effectiveness. Their studies suggest that the organizational climate is the primary motivator that determines behavior and effectiveness. Better known as the “Lewinian Field Theory”, a simple equation was used to measure the impact of organizational climate on organizational effectiveness. The Lewinian Field Theory is represented by the following

equation:  $B=f(P, E)$  where it is analyzed using the following three factors: behavior (B), the person (P), and the environment (E). Translated, the equation states that the function of human behavior is determinant upon the person's own social traits in coupled with stimuli from the environment.

The educational system has served as the focus for the study of organizational climate for decades. Educational systems are the basis of the population's training and development. The variables used to define the workings of the public school systems' organizational climate are often used as a blueprint in other organizations. According to Badoni (2010), in 1966 Andrew Halpin and Don Croft defined eight components that measured the varied dimensions of organizational climate.

The eight dimensions given by Halpin (1966) are discussed briefly as:

1. **Disengagement:** It refers to the teacher's tendency not to be in gear with respect to the task at hand. There is no feeling of any sense of identification with the goals, purposes, and methods regarding the policy of the institution. The teachers do not feel that they are part of the institution and they grow a sense of disinterestedness, detachment towards the school. They are least bothered about the academic or any activities of the school. In short, this subtest focuses upon the teachers' behavior in a task oriented situation.
2. **Hindrance:** it refers to the teacher's feeling that the principal burdens them with routine duties, and other requirements that the teachers view as unnecessary busy work. The teachers perceive that the principal is hindering rather than facilitating their work.

3. **Esprit:** It refers to 'morale'. If a teacher feels a sense of accomplishment in their job and at the same time feel satisfied in his social needs also; it results in high moral or high esprit.
4. **Intimacy:** It refers to the teacher's well-adjusted happy life among themselves. This dimension describes social need satisfaction which is not associated with the task that teachers are called upon to perform in school and not linked with task accomplishment.
5. **Alloofness:** It refers to the behavior patterns within the group faculty, including the leader (the principal) which is characterized as highly formal and impersonal. This dimension describes the degree to which he goes by book and wants to be guided by prescribed roles rather than dealing with teachers in an informal face-to-face situation. To maintain his style he keeps himself at least "emotionally" at a distance from them.
6. **Production emphasis:** It refers to the behavior by the principal, characterized by close supervision of the staff. He is highly directive and plays the role of "straw boss". His communication tends to go in only one direction and he is not sensitive to feedback from others.
7. **Thrust:** It refers to behavior by the principal, characterized by his evident effort in trying to "move the organization." Thrust behavior is marked not by close supervision, but by the principal's attempt to motivate the teachers through the example he personally sets. Because he does not ask the teachers to give of themselves any more than he willingly gives to

himself, his behavior, although starkly task-oriented, nonetheless is viewed favorably by the teachers.

8. **Consideration:** Refers to the behavior by the principal characterized by an inclination to treat the teachers 'humanly'; to try to do a little something extra for them in human terms. (Badoni, 2010, pp. 3-4)

Past research suggests that employee morale and effectiveness is driven by approval of managers. Therefore, managers have a large responsibility in ensuring that they are providing meaningful feedback in order to improve the morale of employees. Subsequently, employees that are felt they are valued by management will consciously improve their efforts to achieve effectiveness.

### **Purpose**

The purpose of this study is to analyze the correlation between organizational climate and organizational effectiveness in the secondary school setting. Biology is the chosen content area because proficiency has not been consistent in recent years. The request of student feedback will allow the instructors to modify instructional methodologies and tools. This will also serve as a method of creating a more meaning instructional environment that facilitates learning.

### **Organizational Challenges, Barriers, and Risks**

The results are determinant upon student performance on standardized assessments. Students who are Limited English Proficient (LEP) and English as a Second Language (ESL) may score lower due to language barriers. Students who read below grade level are at risk of not achieving proficiency. Also students who have inconsistent

attendance rates will be factored into test scores. Students who are perpetually tardy have missed vital instruction time. These students will still be permitted to take exams. The average scores provided to the institution do not indicate which students received sufficient instruction or those who received inconsistent instruction.

### **Benefits**

The results in this study will expose components of instructional methodologies that are ineffective. This will enable instructors to modify the instructional environment. With the proper modifications, instructors will observe increased student engagement and proficiency on assessments.

## 12 References

- Badoni, S. C. (2010). A Study of the Organizational Climate in Relation to Job Satisfaction of Senior Secondary School Teachers of Haridwar District in Uttarakhand. *International Journal of Education and Allied Sciences*, 1-18.
- EducationFirst. (2015, April 20). *Robert B. Glenn High School Student Performance*. Retrieved from NC School Report Card:  
<http://www.ncschoolreportcard.org/src/schDetails.jsp?Page=2&pSchCode=382&pLEACode=340&pYear=2012-2013>
- Instruction, N. C. (2014, March). *North Carolina End-of-Course Biology Test*. Retrieved from NC Public Schools:  
<http://www.ncpublicschools.org/docs/accountability/testing/achievelevels/eocbioald14.pdf>
- NCDPI. (2016, July 20). *Robert B. Glenn High School*. Retrieved from North Carolina School Report Card:  
<http://www.ncschoolreportcard.org/src/servlet/srcCreatePDF?pSchCode=382&pLEACode=340&pYear=2012-2013>
- Randhawa, G., & Kaur, K. (2014). Organizational Climate and its Correlates. *Jornal of Managment Research*, 25-40.
- Rimm-Kaufman, S., & Sandilos, L. (2016, July 20). *Improving Students' Relationships with Teachers to Provide Essential Supports for Learning*. Retrieved from American Psychological Association: <http://www.apa.org/education/k12/relationships.aspx>
- Schein, E. H. (2010). *Organizaitonal Culture and Leadership: 4th Edition*. San Franciso, CA: Jossey-Bass.
- Schoolwires. (2015, April 28). *Glenn High Schol*. Retrieved from Winston-Salem/Forsyth County Schools: <http://wsfcs.k12.nc.us/Domain/547>
- Williams, K. C., & Williams, C. C. (2012). Five key ingredients for improving student motivation. *Research in Higher Education Journal*, 1-23.



## Appendix B

### Milestone 2

#### Objectives, Goals, and Outcomes:

- Increase student proficiency levels on the End-of-Course test for Biology.
- Use the results from assessments to determine educator effectiveness.
- Increase student percentile ranking (based on projected percentile ranking provided by SAS EVAAS)
- Increase instructor effectiveness
- Modify the instructional environment to enhance learning
- Implement the use of student surveys as a tool to measure instructor performance district wide.

<b><u>Specific</u></b>	<ul style="list-style-type: none"> <li>• The utilization of mixed methods tools to measure the effectiveness of educators</li> <li>• Modify instructional methodologies and environment based on findings from qualitative inquiries</li> </ul>
<b><u>Measurable</u></b>	<ul style="list-style-type: none"> <li>• Increased proficiency on standardized exams will indicate an increase in educator effectiveness.</li> </ul>
<b><u>Achievable</u></b>	<ul style="list-style-type: none"> <li>• Increased numbers of proficient scores on the Biology End-of-Course Test (Level 3 or higher)</li> <li>• Substantial growth on the Biology End-of-Course Test</li> </ul>
<b><u>Relevant Results</u></b>	<ul style="list-style-type: none"> <li>• Increased student proficiency school-wide</li> <li>• Increased student proficiency district-wide</li> <li>• Improved school grade (determined by NCDPI)</li> </ul>
<b><u>Timely</u></b>	<ul style="list-style-type: none"> <li>• Qualitative (observations, questionnaires, fieldwork) and quantitative data (descriptive and inferential statistics) will be collected for 2 consecutive school years</li> <li>• Students begin qualitative assessment of instructor in June of 2016</li> </ul>

#### Rationale:

- The purpose of this plan is to analyze the correlation between organizational climate and organizational effectiveness in the secondary school setting. Biology is the chosen content area because proficiency has not been consistent in recent years. The request of student feedback will allow the instructors to modify instructional methodologies and tools. This will also serve as a method of creating a more meaning instructional environment that facilitates learning.

- Students will have input on the instructional environment and methodologies that impact their learning.
- Standardized test scores have tremendous impact on the evaluation of North Carolina Public Schools received by the state. Currently Robert B. Glenn High School received a score of D. Increasing growth and proficiency on End-of-Course Tests could positively impact the current grade of the school.
- Increased teacher effectiveness correlates with student performance.
- Students and instructors build confidence.
- Deeper conceptual understanding of the biological sciences for students. If students increase proficiency, this could help many students build an appreciation for STEM (science, technology, engineering, and mathematical) courses. Having greater knowledge of biological sciences could help ESL (English as a Second Language), LEP (Limited English Proficient), EC (Exceptional Children), and children from low-income families gain greater interest in careers in medicine, engineering, science, and math.

### Appendix C – Milestone 3

Boundaries	Scope	Processes	Systems (IT and Non-IT)
<ul style="list-style-type: none"> <li>Instructors and students who are not participating in state mandated final exams will not be targeted.</li> <li><b>School administration:</b> Although permission to receive feedback from students and include school-wide scores on assessments has been granted by administrators, their effectiveness, duties, or roles are not being measured or targeted.</li> <li><b>Teachers and students outside of grades 9-12 are not being measured or targeted.</b></li> <li><b>Instructors who are impacted by the NC Final Exams or EOC tests are being targeted.</b></li> </ul>	<ul style="list-style-type: none"> <li>Initially all biology teachers will be involved in the planning. Currently, there are four persons teaching biology.</li> <li>With classroom demographics capping at approximately 30 students and 1 instructor, approximately 124 people will be affected each semester.</li> <li>Measuring teacher effectiveness and modifying the instructional environment through the receipt of student feedback and final exam scores will take approximately 1-1.5 years.</li> </ul>	<p><b>Student Feedback Surveys</b></p> <ul style="list-style-type: none"> <li>Conduct student surveys that will provide feedback on teacher effectiveness and the instructional climate.</li> <li>Final draft of surveys will be completed in <b>July 2015</b>.</li> <li>First set of surveys to be dispersed and completed by students <b>January 2016</b>.</li> <li>Second set of surveys to be dispersed and completed <b>June 2016</b>.</li> <li>Third set of surveys to be dispersed and completed <b>January 2017</b>.</li> </ul> <p><b>Standardized and Final Exams</b></p> <ul style="list-style-type: none"> <li>Measure teacher effectiveness by analyzing results of</li> </ul>	<ul style="list-style-type: none"> <li>The initial surveys conducted electronically using Google Docs.</li> <li><b>Impact System-side:</b> Winston-Salem/Forsyth County Schools: <ol style="list-style-type: none"> <li>Biology Department (Robert B. Glenn High School) <b>{Year 1}</b>.</li> <li>All faculty at Glenn High School whose courses are assessed by state mandated final exams will have access to survey <b>{Year 2}</b>.</li> <li>All teachers district wide whose courses are assessed by state mandated final exams will have access to survey <b>{Years 3-5}</b>.</li> </ol> </li> </ul>

		<p>EOC Tests, NC Final Exams, and the ACT.</p> <ul style="list-style-type: none"><li>• EOC/NC Final Exam testing windows: <b>January 2016, June 2016, January 2017, June 2017.</b></li></ul>	
--	--	--	--

### Appendix D – Milestone 4

Benefits	Quantitative Impact of Persons Involved	Financial Impact and Costs of Project
<ul style="list-style-type: none"> <li>• <b>Increased student learning:</b> Students who score a Level 3 or higher demonstrate proficiency. This indicates students demonstrate the appropriate level of literacy and conceptualization of biological theorems.</li> <li>• <b>Increased student proficiency</b> will result in an improved score for the school as a whole.</li> <li>• <b>Increased student morale:</b> Students will build confidence and likely perform better on subsequent exams.</li> <li>• <b>Increased teacher morale:</b> the success of students will likely have a direct impact on the success and motivation of teachers.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Students (based on R. B. Glenn High School):</b> <ul style="list-style-type: none"> <li>- Approximately <b>25</b> students per <b>class</b></li> <li>- Approximately <b>300</b> students taking the End-of-Course test, NC Final Exams, and ACT each <b>semester</b>.</li> <li>- Approximately <b>600</b> students taking the End-of-Course Tests, NC Final Exams, and ACT per <b>year</b></li> <li>- 1 teacher per 25 students in a regular education class</li> <li>- 2 teachers (1 being an Exceptional Children's instructor) in an inclusion class</li> </ul> </li> <li>• <b>Teachers:</b> Four biology teachers</li> <li>• <b>Administration:</b> 1 principal, 4 assistant principals</li> <li>• <b>School:</b> 1600 students, 150 faculty and staff</li> <li>• <b>District</b> <ul style="list-style-type: none"> <li>- There are currently 15 secondary schools in Forsyth County that have students and instructors that will be directly impacted by the scores received on final and standardized exams.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• No additional costs or funding will be needed to complete the project.</li> <li>• <b>Teachers are not financially rewarded</b> in Forsyth County for student proficiency on exams.</li> <li>• The creation of student surveys to analyze instructor performance <b>will not</b> bear financial impact.</li> <li>• The analysis of student performance and teacher effectiveness using scores received from standardized testing is presently a part of the job description of instructors. This will not have any impact on the salaries of the instructors involved.</li> <li>• Teacher salaries range from \$33,350 annually (for first year teachers) to as high as \$60,000+ for teachers with multiple years of experience, National Board Certification, and advanced degrees.</li> </ul>
<p><b>Risk Analysis and Contingency Plan:</b> If a sufficient number of students do not have observable proficiency or growth on the North Carolina End-of-Course tests for Biology, The ACT, and the North Carolina Final Exams, by the completion of this Consultancy Project, the following plan is in place to ensure both the remediation of teachers and students.</p>		

<p><b>Risks for Teachers:</b></p> <ul style="list-style-type: none"> <li>➤ Loss of job</li> <li>➤ Loss of privilege to teach content area (assigned to teach non-tested areas)</li> <li>➤ Negative evaluations and negative growth patterns that could impact future employment</li> </ul>	<p><b>Risks for Students:</b></p> <ul style="list-style-type: none"> <li>➤ Increased chance of failing the course</li> <li>➤ Increased chance of repeating the course</li> <li>➤ Negative impact on the confidence and self-esteem of students</li> </ul>
<p><b>Remediation Plan (Contingency Plan)</b></p> <ul style="list-style-type: none"> <li>➤ Personal development workshops and trainings</li> <li>➤ Study and review of content area</li> <li>➤ Peer observations of instructors with higher student proficiency</li> <li>➤ Modification of lesson plans and student activities</li> <li>➤ Incorporate reading strategies into lesson plans</li> <li>➤ Incorporate real-life examples into the instruction of complex concepts</li> <li>➤ Differentiation of student assignments</li> </ul>	<p><b>Remediation Plan (Contingency Plan)</b></p> <ul style="list-style-type: none"> <li>➤ Teacher-Student tutoring (before or after school)</li> <li>➤ Differentiated assignment</li> <li>➤ Reading coach</li> <li>➤ Peer-to-Peer tutoring</li> <li>➤ Saturday School (<b>Odyssey</b>: Online instructional coach)</li> </ul>

## Appendix E – Milestone 5

**Background:** Student proficiency and teacher effectiveness are determined through an array of assessments. The following risks have been identified, and will be rated as high, medium, or low based on the following criteria

**High Risks:** Include risks that result in the loss of employment and compensation. High risk factors that result in low performance evaluations; which could prevent the likelihood of being hired elsewhere in the future. High Risk factors could also result in job transfers due to poor performance.

**Medium Risks:** Include risks that result in demotions or decrease in compensation. For students, medium risks include course retention and failing grades. Students may have to attend remediation courses such as Saturday School or seek after school tutoring.

**Low Risks:** student failure is likely to result in low-confidence; which could impact the performance of students on future assessments

### Risks for Teachers:

- Termination or transfer- **HIGH**
- Professional demotion (assigned to teach elective courses while participating in rigorous remediation program) - **MEDIUM**
- Negative evaluations and negative growth patterns that could impact future employment - **HIGH**

### Risks for Students:

- Increased student retention rates due to failing grades and low test scores. - **MEDIUM**
- Remediation courses, tutoring, Saturday School - **MEDIUM**
- Negative impact on the confidence and self-esteem of students; which could affect their performance on future assessments. - **LOW**

## Appendix F – Milestone 6

**Milestone 6:** Develop a detailed summary of the key assumptions upon which the consultancy project will be planned and executed. The key assumptions should be documented and validated. Develop a summary of any restrictions (constraints) within which the project must be planned and executed. Finally, review and update the SMART objectives that were developed in Milestone 2

Assumptions, Restrictions, and Constraints	Summary in relation to consultancy project
<p>Assumptions about the nature of reality and truth:</p> <ul style="list-style-type: none"> <li>• A fundamental part of every culture is a set of assumptions about what is real and how to determine or discover what is real.</li> <li>• Such assumptions tell members of a group how to determine what is relevant information, how to interpret information, and when to determine when they have enough of it to decide whether or not to act, and what action to take. (Schein, 2010, pp. 115-116)</li> </ul>	<ul style="list-style-type: none"> <li>• The planning and execution of this consultancy project utilizes mixed-methods data collection in an effort to determine the correlation between educator effectiveness and student achievement.</li> <li>• How students perform on End-of-Course tests allows educators to measure their effectiveness to a certain degree.</li> <li>• In order to determine true effectiveness, instructors will need to collect data for approximately two years. This data will consist of student test scores, surveys/questionnaires, and projected score reports provided by SAS EVAAS.</li> <li>• NCDPI provides instructors with guidelines for determining their effectiveness based on student proficiency; from Level 1 being the lowest, from Level 5 being the highest and most proficient.</li> <li>• The results from the End-of-Course test will allow instructors to identify areas of weakness within his/her instructional norms.</li> <li>• The results from student surveys/questionnaires will identify the need for instructional modifications as well as revisions to coursework and the physical classroom environment.</li> </ul>
<p><b>Restrictions and Constraints</b></p>	<ul style="list-style-type: none"> <li>• Over the course of the consultancy project, it is expected for the demographics of the students to change for each course.</li> <li>• Depending on the sections the instructor receives, there is likely to be an uneven balance of students enrolled in standard courses versus honors courses. Therefore, student performance is likely to fluctuate—although instructors should consistently see consistent growth.</li> <li>• The projected performance of each student will vary.</li> <li>• Not all students are projected to be proficient.</li> <li>• Student performance and participation is contingent upon their attendance, cognitive level, reading level, and personal access to technology.</li> <li>• Uncontrollable circumstances (ex., death, illness, etc.) can affect the performance and achievement of both the instructor and the student(s).</li> </ul>



## Appendix G – Milestone 7

**Milestone 7:** Develop an outline of a project plan including detailed strategies, activities, timelines, responsibilities, expected outcomes and results (to date) for all phases of the project. This needs to include a communications (external & internal) plan.

- **Strategies**
  - **Observe Teacher Effectiveness** through the use of End-of-Course data, EVAAS projected data, and student feedback.
  - **Observe Student Achievement:** observe EOC growth for 3 years
  - **Modify instructional environment** (climate) through results of student feedback/surveys
    - Aesthetics of classroom
    - Soft music
    - Student-centered environment
  - **Modify instructional methodologies** based on results of student feedback/surveys
    - Lecture duration
    - Student-led instruction
    - Facilitate learning
- **Activities**
  - **Student surveys** – use student feedback from surveys to analyze the instructional climate. Responses from these surveys will allow the instructor to determine best practices and methodologies
  - **Student End-of-Course Assessment** – following each semester, students will take the End-of-Course Test for biology. From scores received on the assessment, the instructor can determine his/her level of effectiveness.
  - **Analysis of Student End-of-Course Assessment Scores:** student proficiency is determined in the following 5 levels. These scores are used to determine teacher effectiveness.
    - **Level 1 – Not Proficient (69 and below)**
    - **Level 2 – Not Proficient (70-79)**
    - **Level 3 – Proficient, but not college ready (80-81)**
    - **Level 4 – Proficient and college ready (82-91)**
    - **Level 5 – Proficient and college ready (92-100)**
  - **Analysis of Student Surveys and Feedback:** surveys allow students to anonymously rate the effectiveness on their instructor based on the following criteria:
    - Their preparedness on the EOC
    - The rigor of the course
    - Aesthetics of the classroom (decorations, music, comfort)
    - Safety
    - Motivation received from instructor
    - Knowledge of instructor
  - **Instructor reflects upon craft**, makes modifications to instructional methodologies, classroom environment, and determines best/worst practices
    - **Review EVAAS data**

- **Review student surveys**
  - **Review EOC test data**
- **Timelines**
  - Student testing data collected – June 2015 (Control – No surveys conducted)
  - **Surveys Created January 2016**
  - 1<sup>st</sup> student survey conducted – June 2016
  - 1<sup>st</sup> set of student testing data collected – June 2016
  - Summer Vacation
  - **2<sup>nd</sup> student survey conducted – January 2017**
  - **2<sup>nd</sup> set of student testing data (EOC) collected – January 2017**
  - **3<sup>rd</sup> (FINAL) student survey conducted – June 2017**
  - **3<sup>rd</sup> (FINAL) set of student testing data (EOC) collected – June 2017**
  - Milestone 10 and 11 completed by August 2017
  - Consultancy Project ready for presentation – December 2017
- **Responsibilities**
  - **Ensure student anonymity on student surveys. Do not include identifiers when obtaining information.**
  - Ensure students know that participation in surveys is voluntary.
  - Maintain a safe learning environment.
  - Utilize information obtained from student in a professional manner.
  - Utilize the information obtained from student to reflect upon and improve upon my instructional craft.
- **Expected outcomes**
  - **Increased teacher effectiveness (EVAAS):** Teacher effectiveness is determined using a scale based on the standard deviation of scores across the state. There are three categories used to measure teacher effectiveness.
    - **Red – Does not meet expectations**
    - **Green – Meets expectations**
    - **Blue – Exceeds expectations**
  - **Increased student effectiveness (EVAAS):** Instructors will use each student's projected EVAAS score and compare it to the scores earned to determine student proficiency and effectiveness. Instructors will also use reports generated by NCDPI (EVAAS) to measure student growth.
- **Results (to date)**
  - Teacher effectiveness increase and student proficiency increase
    - **2014 – Red – Did not meet expected growth** (consultancy project did not begin at this time).
    - **2015 – Green – Met expected** growth (consultancy project starts)
    - **2016 – Blue – Exceeds expected growth** (2<sup>nd</sup> year of consultancy project)

## Milestone H – Milestone 8

**Milestone 8:** Develop a preliminary estimate of the financial budget required to plan and deliver the consulting project objectives/benefits. The related assumptions should be documented here and included.

- **There are no significant/additional costs necessary to complete the consultancy project.** Teachers are expected to reflect upon their craft and improve/increase student achievement levels without receiving an increase in salaries.
- **For the Winston-Salem/Forsyth County Schools Teacher salary schedule** [click here](#).
- North Carolina public school teachers receive no additional financial incentives for meeting or exceeding expected student growth.
- However, additional expenses *may* occur when instructors are seeking funding for materials used in hands-on activities and laboratory experiments.

### Laboratory materials that may require additional funding:

Experiment Name	Materials	Total Costs
<b>Liver and Enzyme Lab</b>	<b>Calf Liver</b> - \$5 per container. Approximately 1 container needed per semester (2 semesters),	\$10
	Bottles of <b>Hydrogen Peroxide</b> – \$1 per bottle. Approximately 5 bottles needed per year.	
<b>Egg Osmosis Lab</b>	<b>Eggs</b> (price and quantity will vary based on current market and class sizes)	\$30+ per semester
	<b>Distilled vinegar</b> at \$1 per bottle – 10 bottles	
	<b>Corn Syrup</b> at \$3 per bottle. Quantity needed will vary based on class size.	
<b>Strawberry DNA Extraction</b>	<b>Frozen strawberries</b> – prices may vary based on season, market value, and class size	\$30+ per semester
	<b>Zip-Loc Freezer bags</b> - \$6 for two boxes	
	<b>Coffee filters</b> - \$1	
	<b>Dawn dish detergent</b> – 1 bottle, at \$2.50 per bottle.	
	<b>Clear, plastic juice cups</b> – 50 cups for \$3	
	<b>Total</b>	\$70+ per semester; \$140 per year

## Appendix I – Milestone 9

**Milestone 9:** Develop a quality assurance plan which includes actions to measure the effectiveness of project plan phases. Use the Observe, Plan, Do, Check, Act QA process cycle (a modification of the Deming model) as the basis for your QA plan

<b>Observe</b>	Students are perpetually scoring low on standardized end-of-course exams. Instructor's performance and student performance are at an all-time low (even with a modified curriculum). There needs to be a protocol in place to address issues concerning instructor performance—which directly impacts student performance.
<b>Plan</b>	<ul style="list-style-type: none"> <li>At the end of each semester, teachers will conduct a voluntary, anonymous survey that measures the effectiveness of their classroom and instruction. Based on the results of the survey, instructors will modify their instructional methodologies, as well as the climate of their classrooms. Teachers who fail to meet expected growth after two consecutive years will be recommended for teacher effectiveness and remediation training. Student surveys will be used to measure teacher effectiveness. Student surveys will be used to determine which activities and classroom aesthetics (music, décor, etc.) are most beneficial to student learning.</li> <li>Once the appropriate instructional modifications have been implemented, instructors will compare the results of the survey with student's scores on the End-of-Course tests to determine if the results of the survey are valid.</li> </ul>
<b>Do</b>	<ol style="list-style-type: none"> <li>Conduct Survey (voluntary, anonymous). Spring 2016, Fall 2016</li> <li>Compare results of survey with student performance</li> <li>Use feedback from survey to modify classroom settings and procedures</li> <li>Use feedback from survey to determine if the instructor needs content remediation</li> <li>Use feedback from survey to modify instructional methodologies</li> <li>Sample Survey:  <a href="https://docs.google.com/forms/d/e/1FAIpQLScoe2VABPpPwRFv4Q_NChJIhfFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf_link">https://docs.google.com/forms/d/e/1FAIpQLScoe2VABPpPwRFv4Q_NChJIhfFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf_link</a> </li> </ol>
<b>Check</b>	<ul style="list-style-type: none"> <li>Compare and contrast the results of the survey with student scores on the End-of-Course test</li> <li>Determine if feedback from student surveys and scores from student assessments is sufficient evidence to identify instructor ineffectiveness</li> <li><b>2013-14 school year:</b> Prior to enrollment at Gardner-Webb University</li> </ul>

	<ul style="list-style-type: none"><li>• <b>2014-15 school year:</b> Consultancy project begins. Surveys created in Google Docs.</li><li>• <b>2015-16 school year:</b> First survey conducted in May 2016. Second surveys conducted in December 2016.</li><li>• Test scores from the 2014, 2015, and 2016 school year shown below.</li></ul> <table><tr><th colspan="5">Teacher Growth Measures and Standard Errors</th></tr><tr><th>Year</th><th>Growth Measure</th><th>Standard Error</th><th>Index</th><th></th></tr><tr><td>2014</td><td>-1.7</td><td>0.4</td><td>-3.77</td><td></td></tr><tr><td>2015</td><td>-0.6</td><td>0.5</td><td>-1.12</td><td></td></tr><tr><td>2016</td><td>2.8</td><td>0.7</td><td>4.01</td><td></td></tr><tr><td>Multi-Year Average</td><td>0.2</td><td>0.3</td><td>0.52</td><td></td></tr></table>	Teacher Growth Measures and Standard Errors					Year	Growth Measure	Standard Error	Index		2014	-1.7	0.4	-3.77		2015	-0.6	0.5	-1.12		2016	2.8	0.7	4.01		Multi-Year Average	0.2	0.3	0.52	
Teacher Growth Measures and Standard Errors																															
Year	Growth Measure	Standard Error	Index																												
2014	-1.7	0.4	-3.77																												
2015	-0.6	0.5	-1.12																												
2016	2.8	0.7	4.01																												
Multi-Year Average	0.2	0.3	0.52																												
Act	<ul style="list-style-type: none"><li>• Implement use of student surveys at the departmental level (biology department).</li><li>• Implement the use of student surveys for teachers with low performance</li><li>• Implement the use of student surveys school-wide</li><li>• Implement the use of student surveys district-wide</li></ul>																														

## Appendix J – Milestone 10

**Milestone 10:** Track and document overall plan performance. This includes, but not limited to, documenting actual performance against SMART objectives, actual organizational benefits realized, major issues encountered, budget performance (actual vs projected), and personal and professional reflection. Reflection should include, but not be limited to, what worked, what did not work, and your learning/professional growth.

### Original Smart Objectives:

<b>Specific</b>	<ul style="list-style-type: none"> <li>• Use student surveys to measure teacher effectiveness in the classroom</li> <li>• Modify instructional methodologies and environment based on survey findings</li> </ul>
<b>Measurable</b>	<ul style="list-style-type: none"> <li>• Increased proficiency on standardized exams will indicate an increase in teacher effectiveness.</li> </ul>
<b>Achievable</b>	<ul style="list-style-type: none"> <li>• More students scoring Level 3 on Biology EOC.</li> <li>• Increased student growth on exams.</li> </ul>
<b>Relevant Results</b>	<ul style="list-style-type: none"> <li>• Increased proficiency scores district wide.</li> <li>• Improved assessment of schools by the state.</li> </ul>
<b>Timely</b>	<ul style="list-style-type: none"> <li>• Collect data for 2-3 years.</li> <li>• Final draft of surveys completed August 2015.</li> </ul>

**Outcomes:** Candidate successfully achieved each component of the SMART goals originally created during Milestone 2. Each semester, after students completed the teacher effectiveness survey, the candidate used the feedback received to modify her instructional environment and methodologies starting January of 2016. In 2015, the candidate met expected student growth (Surveys had not been conducted, only drafted. The candidate was still in the planning process of the Consultancy Project). In 2016 and 2017, the candidate exceeded expected student growth (with the 2016-2017 school year being the most successful to date—with a

student proficiency of 70%). A majority of students that were projected to score a Level 2 on the NC Biology EOC, scored a Level 4. Student proficiency improved school-wide; thus leading from an improved school score of C (previous score of D).

**Organizational benefits:** Improved school grade from a score of D to C, thus, removing “low-performing status.” The achievement gap between low-performing students and high-performing students has nearly been closed. Student morale has increased significantly, as well as teacher morale. No major issues occurred during the course of the project.

#### **Personal and Professional Reflection:**

Not only have I grown substantially as an educator, but as a leader. At the beginning of this program I had an erroneous view of what leadership entailed. I egregiously assumed that good leadership was composed mainly of authoritarianism. This program has taught me an immeasurable amount of lessons regarding leadership. This program has pushed me out of my comfort zone. I truly feel that I now have the skills and tools necessary to be an effective instructor, leader, consultant, and policy maker. I entered the program as a 29-year old woman whose only skill was teaching biology at a moderately competent level. I now exit the program a highly effective educator, leader, facilitator, and consultant. I am pleasantly surprised at my growth and progress in such a short frame of time.

1. Followership is a large component of leadership
2. Effective leadership leaves no room for egos
3. Pitching in is more effective than delegating

4. Innovation requires planning (contrary to popular belief)
5. Leaders collaborate!
6. Ideas should be shared.
7. Organizations have individual parts that must function together in a homeostatic fashion.

**What worked, what didn't work:**

The planning and implementation of the consultancy project was organized and seamless. The milestones were extremely efficient in their structure and timing. Initially, I wanted this project to be implemented both school-wide and district-wide. Currently, I am still the only teacher at R. B. Glenn High school that uses student surveys to stimulate self-reflection. I and the administrative staff are brainstorming ways to encourage the use of these surveys—first within the science department, then, subsequently throughout the entire organization. I have had tremendous success with the student surveys. I plan to use them for the remainder of my career as an educator. As a consultant, I find surveys an integral part of the reflective process. Receipt of feedback from consumers provide a valuable, and sometimes unbiased perspective regarding our performance.



## Appendix K – Policy Implementation

### Utilizing Student Surveys to Measure Instructor Effectiveness

1. This is a new policy.
2. **Background:** Student performance on standardized end-of-course exams are consistently below expected growth. Even with a modified curriculum, educator performance and student proficiency are at an all-time low. Teachers will conduct a voluntary, anonymous survey that measures the effectiveness of their classroom and instruction. Based upon the results of the survey, instructors will modify their instructional methodologies, as well as the climate of their classrooms.
3. **Policy Statement:** Teachers who fail to meet expected growth after two consecutive years will be recommended for teacher effectiveness and remediation training. Student surveys will be used to measure teacher effectiveness, and the need for instructor remediation. Student surveys will be used to determine which activities and classroom aesthetics (music, décor, etc.) are most beneficial to student learning.
4. **Rationale:** This instrument (student survey) will be used to identify effective/ineffective instructors and ineffective methodologies/environments. The main objective of this policy is to implement early remediation, which will prove beneficial for both students and instructors.
5. Please **DEFINE** any specialized terms used in the policy.
  - a. **Proficiency:** students who have demonstrated proficiency have achieved a level 3 or higher on any North Carolina End-of-Course Tests.
    - i. **Level 1** – 69 or Lower (Not proficient)
    - ii. **Level 2** – 70-79 (Not proficient)
    - iii. **Level 3** – 80-81 (Proficient, but not college ready)
    - iv. **Level 4** – 82-90 (Proficient, and college ready)
    - v. **Level 5** – 91-100 (Proficient, and college ready)
  - b. **Growth:** students scoring higher than projected levels. The determination of growth is based upon the mean as an indicator of the total progress students in each quintile made. The mean focuses upon the average of the difference between students' observed test scores and their predicted scores. The observance of a large negative mean would indicate that students within a group made less progress than expected. When a large positive mean is observed, it serves as an indicator that students within a group made more progress than expected. A mean of approximately 0.0 indicates that a group is progressing at an average rate compared to other students in the state. Standard error is taken into consideration when calculating the mean.

- c. **Effectiveness:** a comprehensive compilation of student scores. The effectiveness of the educator is determined by 3 colors:
  - i. Red: Overall, students assigned to the teacher did not experience sufficient growth as a result of the teacher's instruction.
  - ii. Green: Overall, students assigned to the teacher experienced sufficient growth as a result of the teacher's instruction.
  - iii. Blue: Overall, students assigned to the teacher exceeded expected growth as a result of the teacher's instruction.
- d. **EC** – Exceptional Children (formerly special education)
- e. **LEP** – Limited English Proficient
- f. **ESL** – English as a second language
- g. **EVAAS – Education Value-Added Assessment System:** Uses student test scores to measure educator effectiveness.
- h. **Projection** – a predicted score on the end-of-course exams. This projected score is based on student performance from grades K-8.

#### 6. Procedures:

- a. Conduct Survey (voluntary, anonymous)
- b. Compare results of survey with student performance
- c. Use feedback from survey to modify classroom settings and procedures
- d. Use feedback from survey to determine if the instructor needs content remediation
- e. Use feedback from survey to modify instructional methodologies
- f. Sample Survey:  
[https://docs.google.com/forms/d/e/1FAIpQLScoo2VABPpPwRFv4Q\\_NChJlhFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScoo2VABPpPwRFv4Q_NChJlhFL8CMqKGn-otM2LpQ4KAU-CQ/viewform?usp=sf_link)

#### 7. SCOPE (persons affected):

- a. Teachers
- b. Students
- c. EC teachers
- d. LEP/ESL teachers and personnel
- e. Administration (principals, assistant principals)

- 8. **EFFECTIVE DATE:** October 2017 (after the state has released teacher evaluations and analyzed student scores).

#### 9. STAKEHOLDERS:

- a. Brad Craddock, Principal
- b. Chad Tesh, Assistant Principal
- c. Shanetta White, Testing Coordinator
- d. Latarsha Pledger, Instructional Facilitator
- e. Tonya Culler, Biology Coach for WSFCS

10. Please state any COMMUNICATIONS OR TRAININGS that will be conducted to ensure effective implementation of the new or revised policy.  
**The biology team meets Wednesdays at 8AM to discuss methodologies, plans for the future, collaborative lesson planning, and the implementation of new norms. The administration team at Glenn High School, and the biology team approve of using student surveys to determine instructor effectiveness. The success of prior surveys was discussed in December of 2016.**

## Appendix L – White Paper

# Students Learn from Teachers They Like:

An in-depth look at the impact of positive relationships between teachers and students, and its influence on student performance

By: Keesha Lewis

### Introduction and Background

With the increased use of standardized tests nationwide, student performance is at an all-time low at Robert B. Glenn High School. Students are tested in three major areas: Math I (Algebra I), English II, and Biology. For the past three years, R. B. Glenn High School has been coined a “low performing school.” While numerous factors play part in student performance, such as: socioeconomic status, access to technology, opportunity, and literacy; instructors have a limited window of time to improve student performance.

Robert B. Glenn High School is one of fifteen schools in the Winston-Salem/Forsyth County school district. The large, picturesque school serves 1,600 students daily and employs over 200 faculty and staff members. Glenn High School prides itself on multicultural study body with 40% of the student population being Caucasian, 30% African-American, 20% Hispanic, and 10% Asian, Multiracial, or Native American. (NCDPI, 2016)



### Trouble on the Horizon

In a recent state-wide initiative, schools in North Carolina now receive grades based on a culmination of assessments that determine the effectiveness of teachers and analyze student achievement. Analyses of student performance are based on scores from the ACT and North Carolina End-of-Course tests. For two consecutive years, Glenn High School has received a grade of D, which classifies the institution as a “low performing school”.

### SCHOOL PROFILE

#### School Size

The total number of students in this school and the average number of students in schools with similar grade ranges at the district and state levels.

OUR SCHOOL	DISTRICT	STATE
1,599	979	837

## HIGH STUDENT PERFORMANCE

### Performance of Students in Each Course on the North Carolina End-of-Course Tests

Percentage of Students' Scores At or Above Grade Level

	English II	Math I*	Biology
<b>Our School</b>	32.9%	24.9%	23.9%
<b>District</b>	48.1%	36.3%	39.6%
<b>State</b>	51.2%	36.3%	45.6%

N/A = Fewer than five students

<http://www.ncschoolreportcard.org/src/servlet/srcICreatePDF?pSchCode=382&pLEACode=340&pYear=2012-2013>

Low performing schools are currently incorporating organizational changes in leadership and instruction in an attempt to improve student performance. Administrative teams at low performing schools are enforcing strategic changes that implement the appropriate accountability measures, as well as shifting instruction to include more research-based methodologies aimed at student engagement.

### Performance of Each Student Group on the North Carolina End-of-Course Tests

Percentage of Passing Scores on the End-of-Course Tests Grouped by Gender, Ethnicity, and Other Factors.

	Male	Female	White	Black	Hispanic	Amer. Indian	Asian	Pacific Islander	Two or More Races	E.D.	N.E.D.	L.E.P.	Migrant Students	Students with Disabilities
<b>Our School</b>	25.9%	29.0%	44.2%	12.1%	12.5%	50.0%	47.6%	N/A	35.4%	16.8%	39.8%	8.3%	N/A	7.8%
<b># of tests taken</b>	684	618	550	365	312	6	21	N/A	48	704	598	133	N/A	128
<b>District</b>	40.9%	41.3%	57.6%	22.3%	28.1%	32.3%	63.5%	44.4%	41.2%	23.9%	57.0%	7.9%	N/A	9.3%
<b>State</b>	42.5%	45.7%	55.8%	24.5%	33.5%	26.8%	63.6%	50.9%	45.0%	28.4%	58.8%	8.6%	19.3%	12.2%

E.D. = Economically Disadvantaged

N.E.D. = Not Economically Disadvantaged

L.E.P. = Limited English Proficiency

N/A = Fewer than five students

Based on the figure above, African-American students perform the lowest out of any other ethnic group. Recent changes at Glenn High School focus on teachers creating more

engaging lesson plans geared at promoting student achievement. These lesson plans are to include reading strategies, hands-on activities, and opportunities for movement and student-led learning. Teachers are to incorporate meaningful discussions and avoid the traditional methods of lengthy lectures in which students have little to no opportunities for speaking.

In addition to instructional modifications, teachers are encouraged to take on a more nurturing, and less authoritative role when interacting with students. Administrators think relationship building is vital in improving student performance. Students learn from teachers they like, or they feel likes them.



### **Solution**

In addition to the integration of literacy strategies within the various content areas, teachers are encouraged to build trusting, nurturing relationships with students. Recent students indicate that students who felt encouraged by their instructors performed at higher levels than students who engaged in constant discord with their teachers. Relationship building is not the only factor that is successful in promoting student achievement, but when practiced simultaneously with other instructional methodologies, (such as kinesthetic and visual activities) can be highly effective.

- Improving students' relationships with teachers has important, positive and long-lasting implications for both students' academic and social development. Solely improving students' relationships with their teachers will not produce gains in achievement. However, those who have close, positive and supportive relationships with their teachers will attain higher levels of achievement than those students with more conflict in their relationships. (Rimm-Kaufman & Sandilos, 2016, p. 1)
- Create an emotionally literate environment: The more comfortable individuals feel in themselves and with others, the easier it is to concentrate and achieve.

Students do not need to be labeled or measured any more than they are. They don't need more Federal funds, grants, and gimmicks. What they need from us is common sense, dedication, and bright, energetic teachers who believe that all children are achievers and who take personally the failure of any one child.

Marva Collins



Consequently, emotional literacy has a positive impact on achievement, mental health issues, behavior, and workplace effectiveness. Creating an emotionally literate environment includes equipping students with essential life skills and learning behaviors including self-awareness, empathy, managing feelings, motivation, and social skills. These skills can be taught and modeled. In building an emotionally literate environment, the place for the teacher to start is with him or herself. (Williams & Williams, 2012, p. 17)

- Students display more motivational benefits from teachers they like over teachers they dislike. However, education is much more than a personality contest. The role of teachers seems to be shifting from preprogrammed knowledge dispensers to instead managers of student learning and the learning environment. Therefore, teachers



must be empowered to exercise professional judgment in the classroom to attain clearly expressed goals. Professional educators should be given latitude to test individual approaches based on strategic goals and incentive systems. Also, teachers should be provided with training to support them in this expanded role including more time for peer interaction to share views on what is effective. Overall, teachers should do unto the students as they would want done unto themselves. (Williams & Williams, 2012, p. 6)

- Positive teacher-student relationships — evidenced by teachers' reports of low conflict, a high degree of closeness and support, and little dependency — have been shown to support students' adjustment to school, contribute to their social skills, promote academic performance and foster students' resiliency in academic performance. (Rimm-Kaufman & Sandilos, 2016, p. 1)



## Conclusion

Optimum student achievement should be the goal of all educators. Although not every student needs nurturing from their teachers, it is not uncommon for people to seek the approval of their superiors. Simply put, people want someone to be proud of them. Positive working relationships are imperative in yielding high quality results. In retrospect, functionality does not cease if working relationships

are not positively conducive to the individual. However, nurturing human relationships are imperative in sustaining the mental and emotional stabilities required to perform at higher levels.

**Reference Links:**

<http://www.apa.org/education/k12/relationships.aspx>

<http://www.aabri.com/manuscripts/11834.pdf>

<http://www.ncschoolreportcard.org/src/servlet/srcICreatePDF?pSchCode=382&pLEACode=340&pYear=2012-2013>



### 13 References

- Badoni, S. C. (2010). A Study of the Organizational Climate in Relation to Job Satisfaction of Senior Secondary School Teachers of Haridwar District in Uttarakhand. *International Journal of Education and Allied Sciences*, 1-18.
- EducationFirst. (2015, April 20). *Robert B. Glenn High School Student Performance*. Retrieved from NC School Report Card:  
<http://www.ncschoolreportcard.org/src/schDetails.jsp?Page=2&pSchCode=382&pLEACode=340&pYear=2012-2013>
- Instruction, N. C. (2014, March). *North Carolina End-of-Course Biology Test*. Retrieved from NC Public Schools:  
<http://www.ncpublicschools.org/docs/accountability/testing/achievellevels/eocbioald14.pdf>
- NCDPI. (2016, July 20). *Robert B. Glenn High School*. Retrieved from North Carolina School Report Card:  
<http://www.ncschoolreportcard.org/src/servlet/srcICreatePDF?pSchCode=382&pLEACode=340&pYear=2012-2013>
- Randhawa, G., & Kaur, K. (2014). Organizational Climate and its Correlates. *Jornal of Managment Research*, 25-40.
- Rimm-Kaufman, S., & Sandilos, L. (2016, July 20). *Improving Students' Relationships with Teachers to Provide Essential Supports for Learning*. Retrieved from American Psychological Association: <http://www.apa.org/education/k12/relationships.aspx>
- Schein, E. H. (2010). *Organizaitonal Culture and Leadership: 4th Edition*. San Franciso, CA: Jossey-Bass.
- Schoolwires. (2015, April 28). *Glenn High Schol*. Retrieved from Winston-Salem/Forsyth County Schools: <http://wsfcs.k12.nc.us/Domain/547>
- Williams, K. C., & Williams, C. C. (2012). Five key ingredients for improving student motivation. *Research in Higher Education Journal*, 1-23.