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Effects of Focused Instruction Process (FIP)on Student End-Of-Course Test (Predicting End-Of-Course Test Using Teacher-Made Test)

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EFFECTS OF FOCUSED INSTRUCTION PROCESS (FIP) ON STUDENT END-OF-COURSE TEST

(PREDICTING END-OF-COURSE TEST USING TEACHER-MADE TEST)

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ABSTRACT

This study took place at a medium-sized suburban high school. It was designed to determine the usefulness of certain teacher-made tests in predicting students' end-of-course (EOC) tests. The teacher taught the students the skills in which their performance was weakest on the previous state test. The students were tested after each skill on a four-point quiz (teacher-made test). Students who scored 3—4 moved on to the next lesson or enrichment, while those who scored 0—2 were re-taught and re-tested. The procedure was repeated throughout the school year. At the end of the course, students took the state-mandated end-of-course test. The results on the end-of-course tests were compared to the results of the teacher-made test scores. We used linear regression to interpret the findings. We found that 13 out of the 39 teacher-made tests had 0 correlation with the end-of-course test; 17/39 had $0.01 \leq R^2 \leq 0.05$; 7/39 had $0.06 \leq R^2 \leq 0.15$; one (1) had 0.17 and one (1) had 0.20. We also examined combinations of the teacher-made tests and the highest correlation was 0.24—generally regarded as a weak relationship. The regression analysis indicates that none of the teacher-made assessments and no combination of them had any practical value as a predictor of EOC. Some statistically significant correlations were observed, but even these would probably not provide teachers with information that could guide instructional decisions that would raise EOC test scores.

INTRODUCTION

This study examines the relationship of students' performance on teacher-edited benchmark assessments administered during the school year to their performance on the state's end-of-course test.

Predicting how students will perform on standardized tests is relevant to all educators. For the last decade, numerous studies have attempted to find ways to predict students' high-stakes test scores using other performance data. Teachers have information on student achievement within specific topics based on tests, quizzes, homework, and other assignments. However, the best way to use this information in predicting high-stakes testing is unknown. Providing teachers with guidance on how to use this information would be extremely valuable.

Standardized high-stakes testing affects every school system. Decisions regarding the use of teaching time and district funds are often the direct result of the previous year's test scores. Efforts to increase student achievement have led school districts to focus on plans to improve instructional effectiveness (Wisdom, 2008). The goal of this research is to understand how well the data from periodically-administered tests during the school year may predict scores on the state's end-of-course (EOC) test

The high school in this study is located in a suburban area in a Louisiana city. To the west is the majestic Mississippi River, whose enchantments and beauty provide welcome peace when school is over. To the south and east are sprawling residential areas populated mostly by African American homeowners. The school has old-façade, low-ceiling buildings that were built during early 1960's. Decades-old trees surround the campus. It has an aging central heating-and-cooling system, and at times, some rooms are too hot or too cold due to old pipes and exhaust

outlets that are rusty and in needs of replacement. Most of the buildings are one-story frame affairs, except for the gymnasium that houses the basketball court and the auditorium. The school has its own newly-renovated football field that is always packed with spectators during football games. In 2010, the school was on an "academic watch list" for its low School Performance Score (SPS) and dwindling student enrollment. It is considered as one of the most challenged schools in the district.

In 2013-2014, the school was in its last year of a federal School Improvement Grant (SIG). As part of that, it implemented the Focused Instruction Process (FIP) to help improve its academic performance. The FIP is an intervention process that involves frequent assessment of the skills being taught. Students were taught and re-taught, tested and re-tested until they mastered the curriculum. In the research reported here, we try to determine how informative the tests used in the FIP process were as predictors of EOC scores.

It is my hope that the research reported here will help the school administration to decide how best to use the FIP process in the coming years. Conclusions drawn will also provide decision-makers in the school district with evidence-based guidance on how to introduce FIP to other schools. The school under study is a pilot for FIP.

This work is organized and presented in five chapters. Chapter One describes a day in the school. It explains the daily routine and summarizes the significant changes that took place in the last three years under a federal grant. This chapter describes the setting and the background of study: the SIG grant, the school's profile and history, and the Focused Instruction Process.

Chapter Two includes a review of the literature about assessments. It describes some of the recent research on assessment and summarizes the findings of some studies that were similar to the present one.

Chapter Three presents the nature of the study. It explains how the information was gathered and analyzed. Student test scores gathered from FIP monitoring charts were compared to the EOC test scores and prepared for statistical analysis.

Chapter Four describes the findings of the study. The information and the data that were compiled were analyzed statistically using regression models to determine the relationship of the FIP test scores to the students EOC test scores. Tables, graphs, and descriptive analysis are used to explain the findings of the study.

Chapter Five summarizes the findings and conclusions of the study.

CHAPTER I
THE PROBLEM AND ITS BACKGROUND

This chapter describes the school in the study, its profile and experiences during the implementation of the federal grant, including the intervention program that the school put into effect.

1.1. The Setting: A Day in My School

Waking up early in the morning is not easy, especially when you have had only four or five hours of sleep after preparing lessons and grading papers for the next day. Eight hours or more of arduous work educating public-school students is a herculean task. It is a life that only the dedicated and persevering can bear, and that only a real teacher could love.

A typical day begins in the school with the arrival of the students as they get off the school bus. At the gate, all are checked for violations of policies. They must be wearing the proper uniform and shoes. When the bell rings, students go to their lockers and from there proceed to their respective classrooms, while teachers stand in their doorways to greet the arrivals, conduct further checks and hustle students to their places.

Teachers remind students now and then to bring their school materials to class. It is not uncommon for students to come to class without pens, pencils, or paper. Some students sleep in the classroom. Apathy and undisciplined behavior is prevalent, and finding ways to address the problem is another challenge that teachers face every day.

The day's lesson usually starts with a warm-up question posted on the activboard while the teacher checks the roll. Warm-up questions review past lessons, but a teacher finds himself lucky if but one student remembers what was discussed the previous day. Review of the past

lesson is necessary before a new lesson begins. After the warm-up, the lesson of the day is presented. Most of the time, the students engage in conversations about their own lives as the teacher struggles to get their attention. Students' lack of interest in learning is evident in their behavior. In the 55 minutes of classroom instruction, sometimes 5-10 minutes are spent dealing with students' behavior. Students are unmotivated and indifferent, especially when faced with especially challenging problems. They do not try to solve multi-task questions that need interpretation, relying on memorized steps to reach solutions. These are the daily struggles of the teacher except in honors classes. Conferencing with students and calling parents works sometimes but not all the time. Changing of classes is done in three minutes. Students who are not in their respective classes within that time are marked late. The simple task of hustling students to their classes is another problem.

In 2010, the school was listed as one of the "Priority Schools" in the district due to the school's declining student enrollment and a School Performance Score (SPS) that was below state standards. Based on student achievement data at the state, district, and school level, the school was found to be consistently underperforming academically for the past five years. Today, the school remains on Academic Watch, with SPS scores that have remained stagnant over the last five years.

With these reasons and the desire to help the students, teachers, and the community as a whole, the school district applied for the SIG funding to transform the school.

1.2. The SIG Grant:

The SIG grant is a federally funded program created by the United States Department of Education (USDoE) to distribute funding to schools and school districts with a high percentage

of students from low-income families. It is restricted to the lowest 5% of schools (Redding, 2010).

SIG grants are awarded to states. The states in turn award the money to individual local school districts to use in implementing one of four USDoE-approved models at qualifying schools.

In early 2011, the school district accepted the School Improvement Grant (SIG) from the USDoE to be applied to its Priority Schools. A part of this grant went to the school in the present study to support three years of activities to transform and improve its performance. The School Board certified that all pertinent requirements would be met.

School Transformation is one of the four model programs that SIG grantee can choose. Its focus is to make dramatic improvement on standardized test scores. The school district decided to adopt this model for the school in the study. Some of the specific requirements of the Transformation Model are as follows:

1. Extensive use of data to help identify curriculum needs.
2. Ongoing professional development that is a) of high quality, b) job-embedded, and c) aligned with the instructional programs in use at the school.
3. Increased student learning time.
4. A new, locally-devised system of teacher evaluation that is rigorous, transparent, and equitable. This new system should include student test data as a significant factor in evaluating teachers.
5. "Merit pay" as a way of rewarding (and attracting) the best teachers.

6. Improved mechanisms for family engagement (Center on School Turnaround, 2010).

1.3. Implementation of SIG (at the school)

With the award of the SIG grant, the school undertook tremendous changes in order to comply with the USDoE guidelines and procedures. According to Local Education Agency (LEA) findings, in terms of student test scores, discipline, graduation rate and overall performance rating, the school was far below the state and district expectations.

Based on performance records and needs assessments, the School District implemented interventions in the following key areas:

1. Leadership: During the start of the school year 2011-2012, the District replaced the current administration including the principal, assistant principal and dean of students.

2. Instructional Staff: High stakes test results, combined with student and teacher survey results, indicated a desperate need to make immediate changes in the staff. All teachers were advised to re-apply if they wished to teach in the school.

3. Magnet Growth. The existing medical magnet was restructured to better suit the needs of the students.

4. School Structure: The school would become a grade 7-12 school since there was no longer a natural district feeder pattern for the school.

In the 2011-2012 school year, the school underwent tumultuous restructuring. The district replaced all administrators and more than half of the teachers. The newly-designated principal introduced his version of how to manage an effective school. Students could choose to wear, or not to wear, their uniforms, and could adorn themselves in anyways that did not

interfere with the learning process. Students were given 5 minutes to switch classes, and teachers could only mark them late 10 minutes after the tardy bell.

With the new privileges, students spent longer times in the breezeways, in their lockers and in bathrooms. When the bell rang for class to start, most of the students would still be walking or enjoying the company of others. Teachers were in no position to do anything except mark the students late. A majority of the students remained in the breezeways even after the tardy bell and very few were inside the classroom. Altercations began breaking out in the time between classes. Adding to the confusion were the 8th graders on the campus as part of the transformation process. Student brawls were the talk of the day, overtaking even the scant remaining class time. The first couple of months of transition were chaotic. Students showed up in the classrooms whenever they wanted, with their own agendas. For teachers, the frustrations and disappointments were too much. Before the end of November, teachers began quitting and a new principal was appointed.

The school district sent temporary administrators and more personnel to oversee and address the situation. They reversed the liberalized policies and implemented new ones, but the confusions remained. The majority of the students had two or more failing grades just weeks before the end of the first semester. Teachers gave students make-up work to help them pull up their grades. However, at the end of the semester, there were students who just chose to fail their courses.

The spring semester was no less challenging. The newly assigned administrators imposed strict rules, and students were held accountable for their actions. Any students who were involved in fighting or frequent tardiness were suspended in-school or sent to the discipline

center. The school made a little progress, but because of the false start, the school's SPS barely changed, going from 69.3% to 71.8%.

In the beginning of the 2012-2013 school year, the school had another principal. An associate principal was also hired to oversee the 7th and 8th grade students. Housing the middle school and high school on the same campus was one of the elements of the transformation plan. Unfortunately, the middle school and high school students never got along with each other. The number of students suspended or reprimanded had dramatically increased. Halfway into the semester, some students still did not have class schedules. Before the end of the semester, an incident of a student bringing a gun to school put the entire campus into lockdown. A week after the incident, the school had yet another new principal.

Despite sending more personnel to monitor students and help the teachers, the district's efforts to transform the school remained futile. They hired an educational firm and more instructional specialists to train and assist. They also sent specialists to handle students' issues and concerns. However, despite the district intervention efforts, in spring 2013 the school's SPS slumped to 62.2%. By this time, the school had had six principals, more than half of the teachers had been replaced, and student enrollment was at its lowest.

In the last year of the SIG, the school and the school district tried a new approach. The middle school was moved to another location. The district assigned two co-principals, an assistant principal and a roaming consulting principal, to lead and supervise the school. Before the start of the 2013-2014 school year, the master schedule was already in place, and teachers' instructional supplies were ready. With teachers' and students' concerns being promptly addressed, the school made much progress in discipline, academics, and teachers morale.

Students' fighting subsided, but students' apathy was still a concern. Administrative support for the teachers and students was evidently improving.

To further help the school to increase its SPS, the district introduced another instructional intervention by hiring the Strategic Learning Initiative (SLI) firm to implement their "Focused Instruction Process" (FIP).

1.4. The Focused Instruction Process (FIP)

The Focused Instruction Process (FIP) developed by the SLI, claims to dramatically improve student performance and school results in a remarkably short period. According to SLI, the idea is a spin-off from the successful experience of the Brazosport Independent School District in Texas. It empowers school staff and parents to use their untapped ideas, energy and commitment to improve outcomes.

The FIP story starts with Mary Backsdale, a third-grade teacher at Velasco Elementary, one of the schools in Brazosport. Despite the fact that 94% of Ms. Backsdale's students were considered "at risk", virtually all of them mastered all sections of the state test. When Backsdale's students missed questions on their tests, she did not see it as a failure on their part. Instead, she set out to determine what part of the instruction had not come across. She then found the time to re-teach that section before moving on to the next chapter. This process enabled all of her students to excel (Davenport & Anderson, 2002).

Backsdale's system, which eventually was incorporated in FIP, is similar to Deming's "Plan, Do, Check, Act" (PDCA) cycle. It is a data driven, cyclical continuous improvement approach. The process eliminates subjectivity and instead systemically identifies areas that need more instruction, as well as students who needed more help. Drills, repeated as needed, prepare

students for tests. After testing, concepts that were missed were revisited (Davenport & Anderson, 2002).

The FIP process began its pilot in the school in December 2012. The SLI consulting firm conducted a series of seminars for teachers in the four core academic subjects, and then revisited the process and procedures in a workshop for all in June 2013. Teachers were asked to analyze past test results and determine the skills most in need of development. They were mandated to prepare test questions and to plan on how to make monitoring chart. The core-subject teachers prepared a calendar of activities during the six-day training. Fifteen minutes of each 52-minute instructional period were allocated to skill-development. The skills were to be aligned with the scope and sequence of the subject matter. The students would be tested using four-point assessments consisting of multiple choice questions drawn from past EOCs, and the EAGLE and the Edusoft test banks. The questions were chosen by the subject teacher. Students who scored 3 and 4 would be considered competent and students who scored 0—2 will be re-taught and re-assessed. Students' scores would be recorded on individual progress-monitoring charts. The process was implemented throughout the 2013-2014 school year.

Early in January 2014, FIP teachers attended a one-day seminar to re-evaluate and finalized their instructional calendar for the spring semester. FIP teachers had made changes in their scheduled classroom lessons by analyzing the result of the mid-term exams, also taking into account the new Common Core State Standards (CCSS) curriculum.

Out of the core teachers involved in the FIP, only teachers whose students were tested on EOC tests were included in this study. Five academic subjects: Algebra 1, Geometry, English II, English III and US History, had EOCs.

CHAPTER II
LITERATURE REVIEW

High-stakes test results make a big difference for schools and teachers. Being able to predict how students will perform on high-stakes tests would be a game-changer for any educator.

The present study searches for predictors of students' standardized test scores. A review of the literatures did not yield very many published sources regarding this relationship. Google Scholar and university catalogs produced only a few of items. This chapter summarizes the studies that we found. We also summarize some studies that address how to use assessment in instructional planning.

2.1 Studies on Predicting High-Stakes Testing

Educators and policy-makers in the United States have relied on standardized tests to measure educational progress and have used the results for many other purposes as well. The history of state assessments has been eventful. Education officials have tried minimum competency testing, portfolios, multiple-choice items, brief and extended constructed-response items, and more. (Rhim & Redding, 2011).

K–12 educators in school districts around the country, under substantial pressure to demonstrate increased student achievement, are experiencing an onslaught of student performance data. The emphasis on testing is spurred by federal, state, and district accountability policies that have pressed educators to use data to monitor student progress toward well-defined learning goals (Bulkley et al, 2010).

A study by Gibbons et al. (2003) includes findings on 3rd-grade reading skills using the Curriculum Based Measurement–Reading (CBM-R) test. They found that students who scored at or above the CBM-R cut scores had a high probability of "passing" the state test, and students below the cut scores had a high probability of "failing" the state test. A CBM-R cut score defines the critical number of words read correctly per minute (WRCM), such that students who are at or above the cut score are considered to be proficient and students who are below target at a given grade and season (fall, winter, or spring) are determined to be in need of additional support.

A similar study by Helwig, Anderson, and Tindal (2002) examined the effectiveness of a CBM math concept task at predicting eighth-grade student scores on a computer-adaptive test (CAT) of math achievement, designed to approximate a state standardized math achievement measure. The computer adaptive test was provided to the researchers by the State Department of Education (DOE) and included items similar to those of the statewide math exam and generated scores on the same scale. Both the DOE and the software developer considered the computerized test to be a valid substitute for the original standardized measure. The CBM test and the CAT test were administered to 90 students in eighth grade, within approximately 2 to 3 weeks of each other. The result yields a correlation value of $r = 0.80$.

Shapiro et al. (2006), summarized their findings on the relationship between CBM test and standardized assessments in two school district in the state of Pennsylvania. The researchers used Pearson product-moment correlations between the CBM math concepts/applications measure and the PSSA results obtained at fall, winter, and spring assessments across districts. All correlations were statistically significant ($p < .001$), and all except for the fall assessment for District 1 ranged between $0.25 \leq r \leq 0.54$.

A study conducted in a large suburban district by Wisdom (2008) shows that frequent benchmark testing in mathematics in the upper elementary grades provides scores that predict subsequent scores on state assessments. Benchmark tests administered two months prior to state testing provided an indication of probable student performance on the state exams.

Further review of the literature revealed some opposing arguments about assessments that predict standardized testing and understanding student achievement.

James Popham (NRC, 2003), a psychometrician at the University of California, argued that there is a mismatch on what is taught and what is tested. Many of the items in the test, for the purpose of obtaining a good distribution of scores, are linked to the academic aptitude or socioeconomic status of the students. Thus, it is impossible to predict whether the students' test scores are the result of their learning or the result of the characteristics they brought with them.

Even when the content of the assessment is purported to be aligned with state standards, a team of researchers (Henderson et al., 2008) found no statistically significant difference in achievement scores between schools that received a grant (2006 and 2007) to implement quarterly benchmark testing and those that did not receive the grant.

Brown & Coughlin (2007), in their study of interim assessments used in the Mid-Atlantic region found no evidence that performance on these measures could predict end-of-the-year state test performance.

A study conducted in Boston Public School System, evaluated the impact of the interim assessments on third and fourth-grade state test scores and on SAT-9 performance. The researchers found "generally positive [but] not statistically significant ($r=0.14$, $p<0.20$)" effects

of these assessments on state reading scores, and no significant effects on SAT-9 performance (Quint, Sepanik, & Smith, 2008, p. 41-56).

Berliner and Amrein (2003) evaluated 18 states that promote high-stakes testing policies. Their goal was to determine whether the high-stakes testing programs promote the transfer of learning that they are intended to foster. Although this work is not directly related to the question of the predictive value of benchmark tests, it raises an important question about the value of some state-wide tests. Student learning was measured by means of additional tests covering some of the same domain as each state's own high-stakes test. They asked the question whether transfer to these domains occurs as a function of a state's high-stakes testing program. They used four separate standardized and commonly used tests that overlap the same domain as state tests: the ACT, SAT, NAEP and AP tests. Their findings were as follows: (1)Sixty-seven percent of the states that use high school graduation exams posted *decreases* in ACT performance after high school graduation exams were implemented; (2) Fifty six percent of the states that use high-stakes high school graduation exams posted decreases in SAT performance after those exams were implemented. Thus, there is no reliable evidence of high-stakes high school graduation exams improving the performance of students who take the SAT; (3) High-stakes testing policies did not usually improve the performance of students on the grade 4 NAEP math tests, grade 8 NAEP math tests, and grade 4 reading test; and (4) High-stakes high school graduation exams do not improve achievement as indicated by the percent of students passing the various AP exams. There is no compelling evidence from a set of states with high-stakes testing policies that those policies result in transfer to the broader domains of knowledge and skill for which high-stakes test scores must be indicators.

2.2 Studies on Assessments

Teachers conduct assessments with the purpose of knowing what the students have learned and have not learned. Specifically, the aim is to determine students' strengths and weaknesses and at the same acquire information needed to plan instructions.

Providing educators and teachers with information on instructional practices should lead to improved student performance. But surely, the notion that testing students alone will improve instruction is superficial. It is essential to ensure that the people who have data know what to do with it (Nabors et al., 2010). A study made by Goertz (2010) about assessments showed that teachers varied in their capacity to interpret assessment data and to use it to modify their teaching. The study also found that few of the items in the assessments provided information that teachers could readily use, and few changed their practices even as they re-taught material that was flagged by the assessment results.

Interim assessments, as described by Piere et al. (2009), have two purposes: (1) to evaluate students' knowledge and skills relative to a specific set of academic goals, typically within a limited time frame, and (2) to inform decisions in the classroom and beyond. Stecher and his colleagues (2008) have written that interim assessments, as currently constructed, may lack information that can lead to improvements in instruction and learning. How interim assessment informs teachers, and how teachers may best use these data to improve instruction remain unanswered empirical questions.

2.3 Summary

The literature has revealed some information on using other tests in predicting high-stakes tests. The studies of Gibbons et al., (2003), Helwig, Anderson, and Tindal (2002), and Shapiro et al. (2006) indicate CBM tests were good predictors of high-stakes test scores. Wisdom

(2008) supplies some evidence that using frequent assessment that are aligned to state standards may be able to predict student scores on standardized tests. On the other hand, the studies of Henderson et al.(2008), Brown and Coughlin (2007), Berliner & Amrein (2003), and Quint, Sepanik, & Smith, 2008, give evidence of the opposite..

Although everyone agrees that assessing students can provide important information for all education stakeholders, it seems clear that different assessments that are supposed to be related to the same goals are often not actually well-aligned.

CHAPTER III
NATURE OF THE STUDY

This chapter explains the rationale, research design and setting of the study. The identities of the students and teachers involved in the study as well as the name of the school are withheld.

3.1. Rationale

Many important institutional decisions in education are today based on the test results of students. Knowing and understanding what variables predict state test scores is obviously of high value. This motivates our investigation of the periodic, teacher-made FIP tests in predicting the End-of-Course (EOC) test scores.

3.2 Population and Setting

The school in the study is an urban high school that had about 500 students enrolled during the 2013-2014 school year. A majority of the students (85%) qualified for free or reduced lunch, and 99% were African-American.

For over a decade, the Louisiana Department of Education has been using various systems for gauging school performance. The latest system (2013) grades public high schools based on standardized test scores and graduation rates. In high school, half of the school grade is based on student achievement (25% on the ACT and 25% on End-of-Course tests) and the other half is based on graduation rate (25% on the graduation index and 25% on the graduation cohort rate). The school in this study has had a stagnant School Performance Score (SPS) for the last five years and was labeled “academically unacceptable” in 2010; see Table 1. It was for this reason that the school was a candidate for the SIG, as explained previously.

Table 1. SPS Scores of the school by year

School Year	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
SPS Score	67.6%	70.8%	69.3%	71.8%	62.2%

The population in the study was limited to 280 students from 9th—11th grade and five (5) teachers who compiled FIP assessment charts. Below is the distribution of student classes and teachers by the subjects of the courses; see Table 2.

Table 2. Tally of Students, Classes and Teachers

Subject Area	Number of Students	Number of Classes	Number of Teachers
Geometry	95	5	1
Algebra I	97	6	1
English II	92	5	1
English III	88	5	1
US History	86	4	1
TOTAL	358	25	5

Note: (Some students are taking two subject areas. This is reflected in the discrepancy in the number of respondents)

3.3. Research Design

By normal FIP practice, each teacher creates a calendar of activities at the beginning of the semester, which contains the skills that were deemed in need of development together with the number of days to be devoted to each skill and the dates of testing and re-testing. The FIP teachers were to use the calendar to align the skill-instruction with their class lessons and objectives. The teachers taught the skills for 15 minutes every class period. The students were tested on the skills using four-point assessments. All test questions were drawn from previous state tests, benchmark assessments and other test banks accredited by the school district. The skills test did not contribute to the student's course grade—a condition set before the implementation of the program. Students who scored 3 or 4 on the tests were considered proficient, while those who scored 0—2 were not. Non-proficient students were re-taught during

"success time" (ST) every Tuesday and Thursday, while proficient students were assigned enrichment activities. Students were re-tested after two "success times," and the results were recorded on the FIP assessment charts.

The FIP teachers were responsible for the collection of the FIP data. It was up to their discretion how closely to follow their FIP calendar. The FIP teachers were constantly monitored by the administration and by an observer from the Strategic Learning Initiative (SLI) firm. Follow-up monitoring and evaluation of the process were discussed in departmental meetings.

There were thirty-nine (39) FIP tests that were administered in the school year in the five academic-subject areas; see Table 3.

Table 3. Tally of FIP tests per academic-subject area.

Subject Area	Number of Tests (1st Semester)	Number of Tests (2nd Semester)	Total Number of Tests
Geometry	4	4	8
Algebra I	4	4	8
English II	4	3	7
English III	4	4	8
US History	4	4	8
TOTAL	20	19	39

The EOC test scores used in this study were made available by the school administration. The EOC test scores range from 600 to 800. All of the students' actual teacher-made FIP test results and their EOC test scores, presented in table form, were in the appendix part of this research paper.

CHAPTER IV
PRESENTATION AND DATA ANALYSIS

The goal of this study is to determine the predictive value of the FIP test scores for the EOC test scores. This chapter presents our main findings. Graphs and tables are provided for better understanding.

Our interest is centered on the correlation of the FIP tests to the EOC tests. In a bivariate model in which the two variables are both subject to some random influences, the *correlation coefficient* (also called *Pearson's r*) describes how close the data lies to a straight-line relationship. The strength of the linear relationship may also be measured by R^2 ($=r^2$), sometimes called the *coefficient of determination.* The meaning of these statistics is described below.

There are other statistical measures of the dependence between two variables. For example, *Spearman's rank correlation coefficient*, unlike the correlation coefficient (*r*), does not require assumptions of linearity in the relationship between variables. The *Kendall rank correlation coefficient* is an alternative method to Spearman's correlation. The *Distance correlation* may be used to identify non-linear relationships between two random variables. The *Mutual information* measures how much one random variable tells us about the other. The *Maximal information coefficient* is based on the idea that if relationship exists between two random variables, then a grid can be drawn on the scatter plot of the two variables that partitions the data to encapsulate that relationship (Susan et. al., 2013). We decided to use the R^2 statistic because the relationships observe in the data appeared to be nearly linear, and r and R^2 are widely used and understood.

The *correlation coefficient, Pearson's r,* varies between -1 and +1, and indicates the kind of relationship each teacher-made FIP test has to the End-Of-Course (EOC) test. The closer the coefficient is to either -1 or 1, the stronger the relationship between the variables. Negative *r* values would mean that higher FIP scores were associated with lower EOC. In all cases where negative *r* was found, the values were very close to 0 and probably resulted from random noise in the data.

The *coefficient of determination*, denoted R^2, is the square of the correlation coefficient. R^2 may be understood as the portion of the variation of the EOC score that is accounted for by the variation of the FIP test score. It may be used to measure how close the data are to the fitted regression line. The R^2-value is used to gauge how informative the result of a particular FIP test is in predicting the EOC test score. Statisticians and researchers use the R^2-value widely as a measure of correlation between variables.

The FIP-test-score data is complex due to the following reasons: (1) it consists of many tests; (2) some students had re-test scores; (3) some scores are missing due to student absences. This complexity makes it difficult to address the goal of this study. Therefore, we adopted the following simplifications. First, exploratory data analysis suggested re-test scores were generally less informative than the 1st test attempt, so we omitted the re-test scores from the analysis. Second, we found many individual FIP tests that were uncorrelated with the EOC test, and that they actually reduced our ability to predict EOC when combined with other data. We identify these tests in the presentation below. Third, sometimes summing up the scores on several FIP tests results in a statistic with better correlation to EOC. We illustrate the instances of this with the highest R^2 that we found.

The graphs presented below (figures 1-22) show the teacher-administered (FIP) tests scores plotted against the EOC test scores. Each circle in each graph represents one student. Using linear regression on Excel, the line of best fit was computed, and it is shown in the graph. There are five academic subjects to analyze, and the data for each are presented separately. The *r* and R^2 values are shown in tables.

4.1. Algebra 1

During the Algebra I course, eight FIP tests were administered. In comparing correlation coefficients of the eight FIP tests, we found that test 1, 2 and 8 have the highest correlation to the end-of-course test; see Table 4.

Table 4. Pearson r-value of Algebra I FIP tests compared with one another and with the EOC test

	1FIP	2FIP	3FIP	4FIP	5FIP	6FIP	7FIP	8FIP	EOC
1FIP	1								
2FIP	0.49	1							
3FIP	0.07	0.12	1						
4FIP	0.14	0.16	0.33	1					
5FIP	0.12	0.15	0.07	0.12	1				
6FIP	0.21	0.26	0.19	0.13	-0.07	1			
7FIP	0.14	0.01	-0.13	0.06	-0.03	-0.01	1		
8FIP	0.16	0.23	0.38	0.18	0.13	0.30	0.13	1	
EOC	0.44	0.33	0.16	-0.04	-0.01	0.13	0.04	0.29	1

From table 4, we see that none of the FIP tests had a very strong correlation with the EOC. This is not unexpected, because EOC covers numerous skills, but each FIP covers only one. Is it possible to combine tests to get a stronger predictor? We tried all possible combinations (there are 255) in *Mathematica,* and found that the only ones with high R^2 included test 1, 2 and 8; see Table 5.

Table 5. Algebra I R^2-value of the FIP tests to the EOC test

	1 FIP	2FIP	3FIP	4FIP	5FIP	6FIP	7FIP	8FIP
R^2	0.20	0.11	0.03	0.001	0.000	0.016	0.002	0.08

Table 6. Pearson r and R^2-value of Algebra I FIP tests compared to EOC test

	Pearson r	R^2
Sum of tests 1,2, & 8	0.49	0.24
Sum of All Tests	0.39	0.15

In table 6, we summed up all the FIP tests that had highest correlation as well as all the eight FIP tests, and computed their *r* and R^2 values when EOC is regressed on the sums.

The graphs presented below show the EOC scores of 97 students plotted against the FIP test scores on the tests that had highest correlation, their sum, and sum of all the tests. Each circle in each graph represents one student. The line of best fit was determined using regression analysis on Excel. In the graph are the R^2 values for each data set; see Figure 1 through 5.

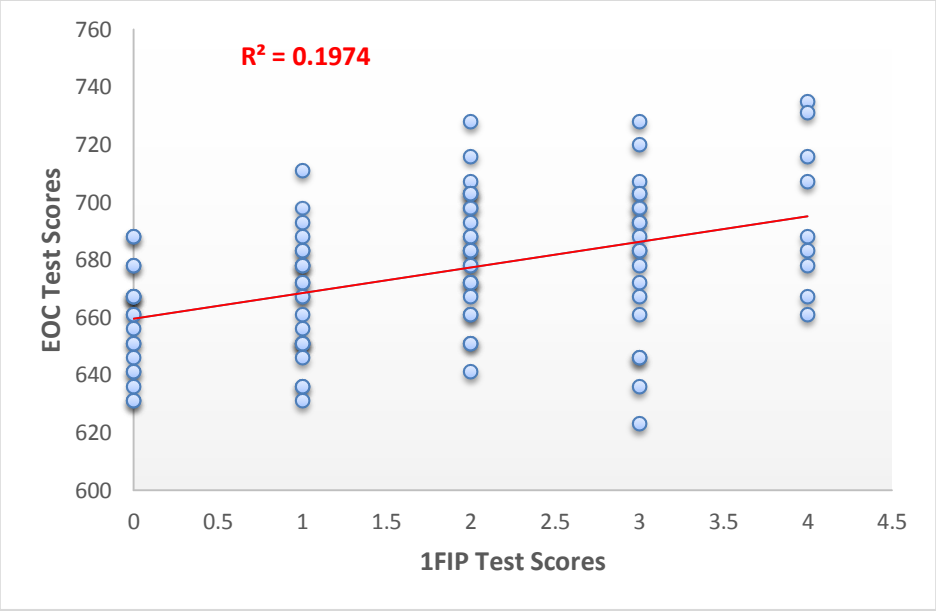

Figure 1. EOC scores plotted against the 1st FIP test.

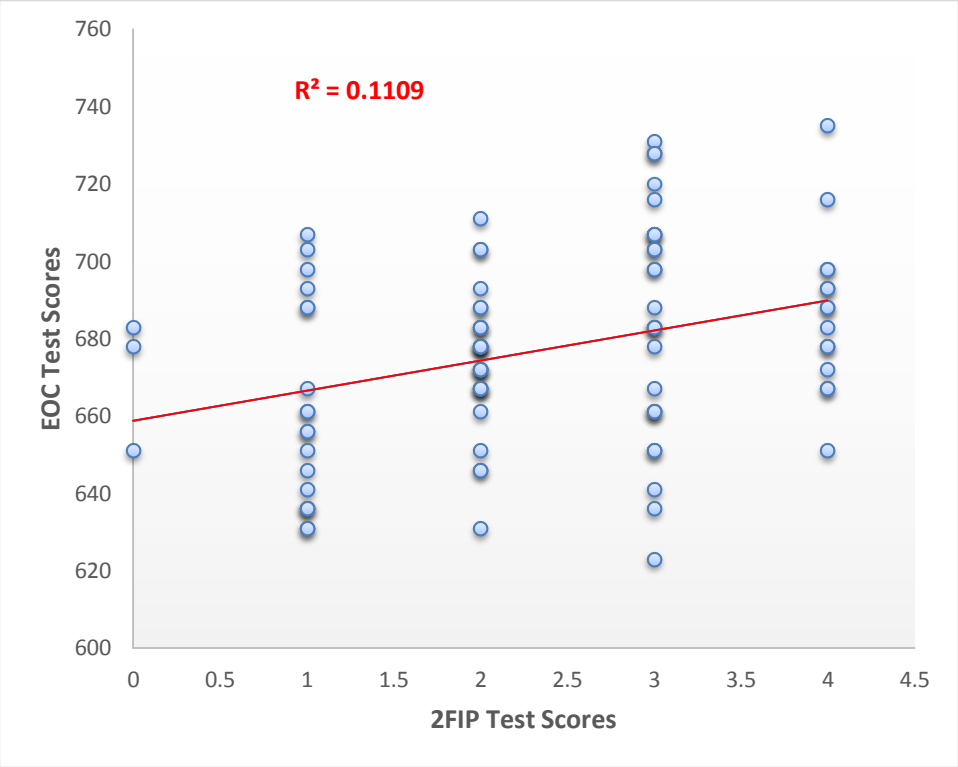

Figure 2. EOC scores plotted against the 2nd FIP test.

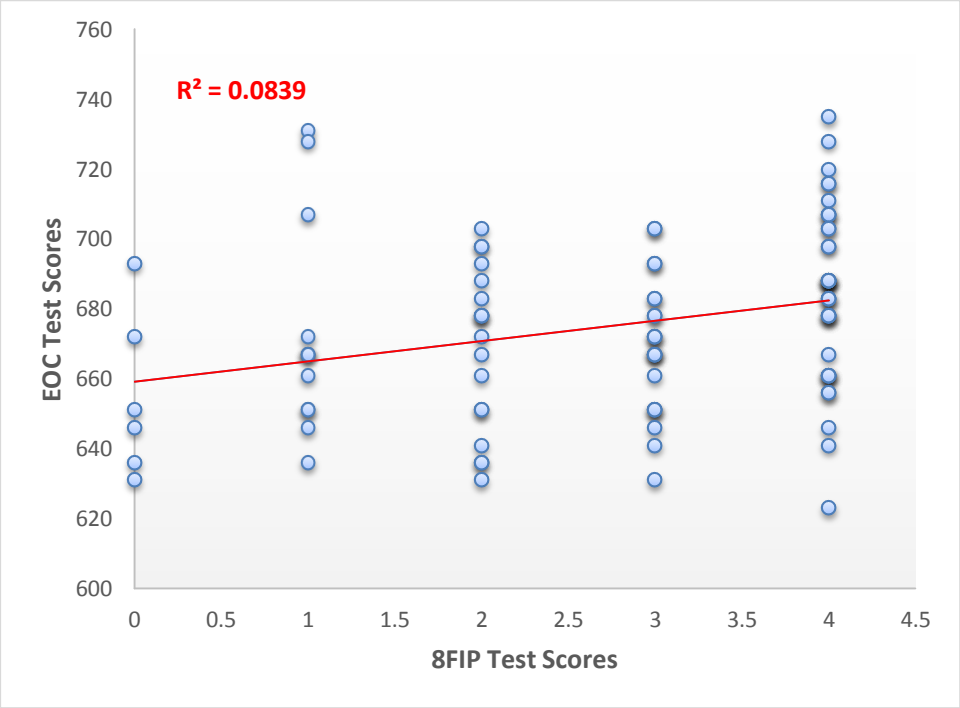

Figure 3. EOC scores plotted against the 8th FIP test.

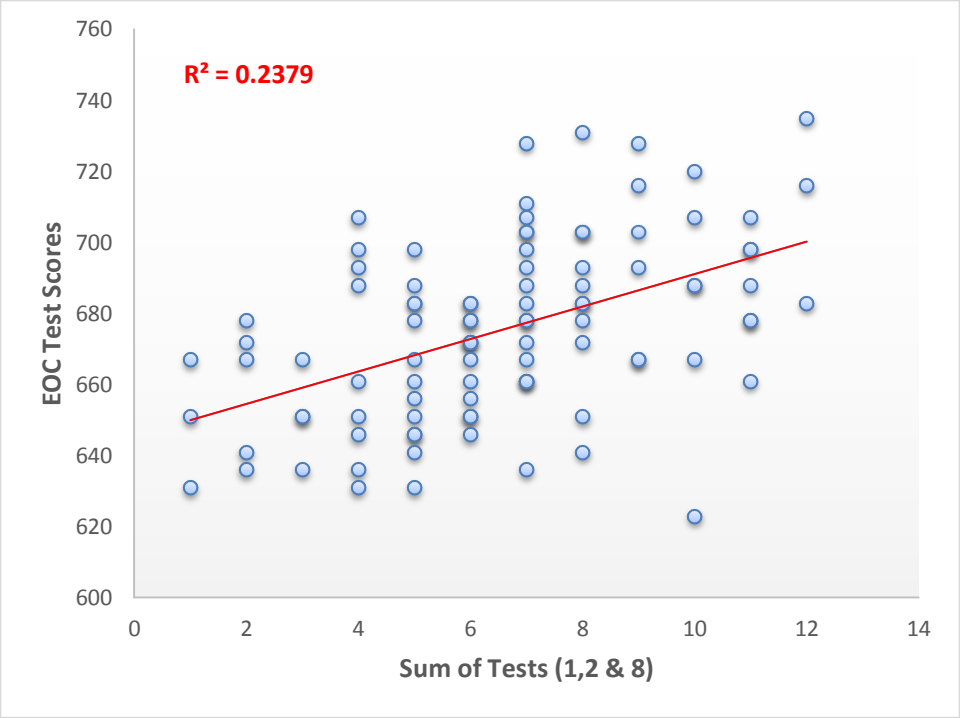

Figure 4. EOC scores plotted against the sum of FIP tests (1,2&8).

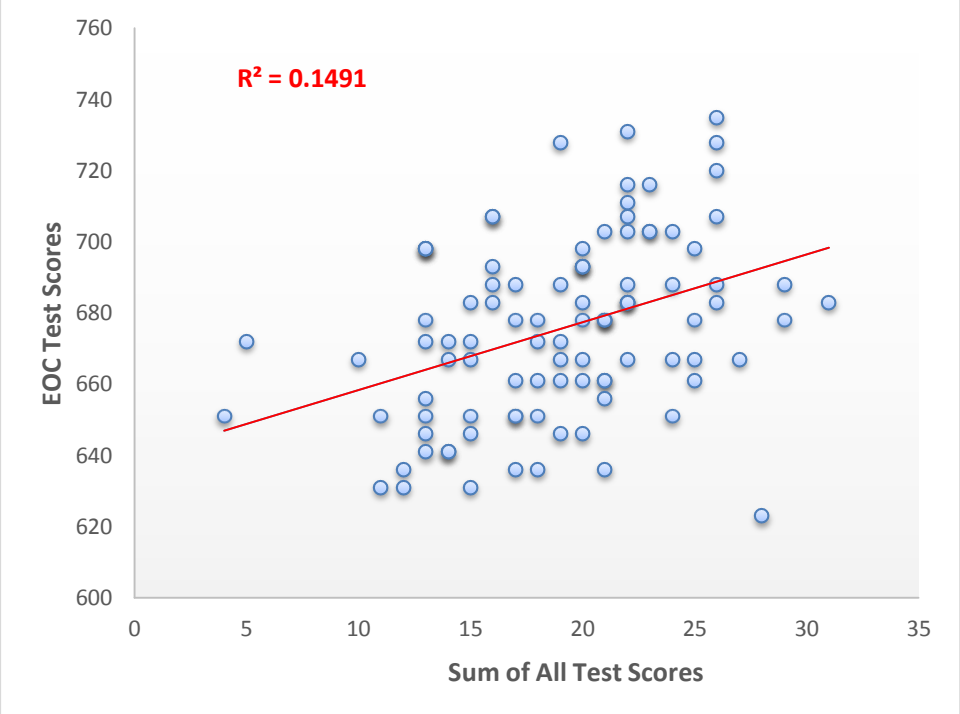

Figure 5. EOC against the sum of all Algebra I FIP tests.

4.2. English II

The correlation coefficient analysis on the seven FIP tests that were given during the course in English II showed that FIP tests 3rd and 4th, had the highest *r*-values as "predictors" of the EOC test score. However, even these tests had very low correlation; see Table 7 and 8.

Table 7. Pearson r-value of English II FIP tests with the EOC test

	1FIP	2FIP	3FIP	4FIP	5FIP	6FIP	7FIP	EOC
1FIP	1							
2FIP	-0.00	1						
3FIP	-0.06	0.09	1					
4FIP	-0.05	0.23	-0.04	1				
5FIP	-0.20	-0.11	0.14	-0.11	1			
6FIP	-0.04	0.15	0.04	-0.14	0.09	1		
7FIP	0.09	-0.11	0.04	0.22	0.06	0.14	1	
EOC	0.02	0.14	0.23	0.25	0.09	0.16	0.14	1

Table 8: R^2-value of English II FIP tests to the EOC test

	1FIP	2 FIP	3 FIP	4FIP	5 FIP	6FIP	7FIP
R^2	0.00	0.02	0.05	0.06	0.01	0.03	0.02

Below is the correlation coefficient and R^2 of the sum of the two tests that had highest *r*-value compared with the EOC score; see Table 9.

Table 9. Pearson r and R^2-value of English II FIP test compared to EOC test

	Pearson r	R^2
Sum of (3&4FIP)	0.27	0.07
Sum of score (all)	0.38	0.15

The following graph shows the EOC scores of 92 students plotted against the FIP tests that had highest correlation to the EOC. Each circle represents one student. The line of best fit

was determined using linear regression analysis on Excel. The R^2 values for each data set are shown in the graph; see Figure 6 through 9.

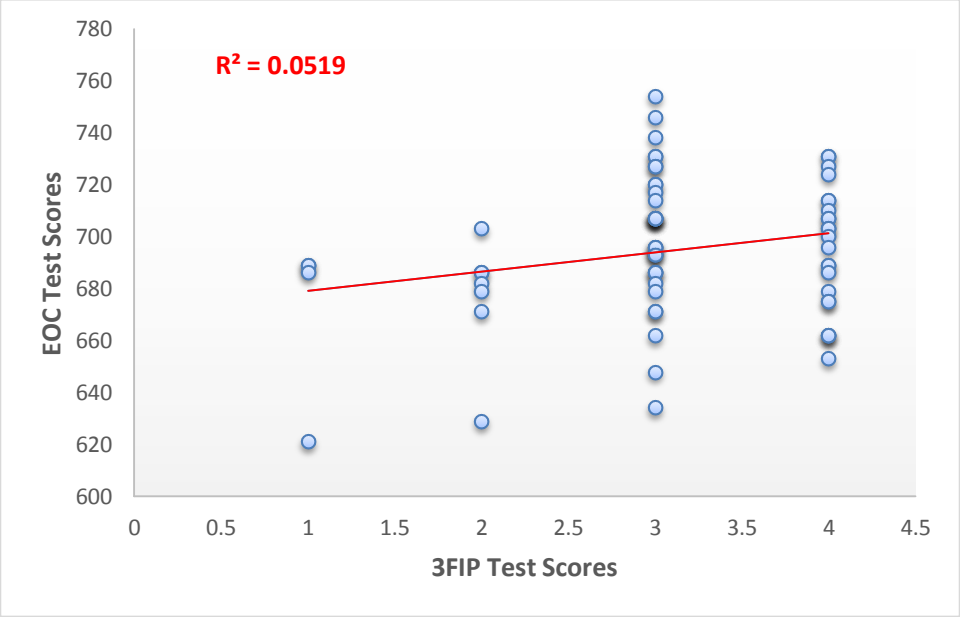

Figure 6. EOC scores plotted against the 3rd FIP test.

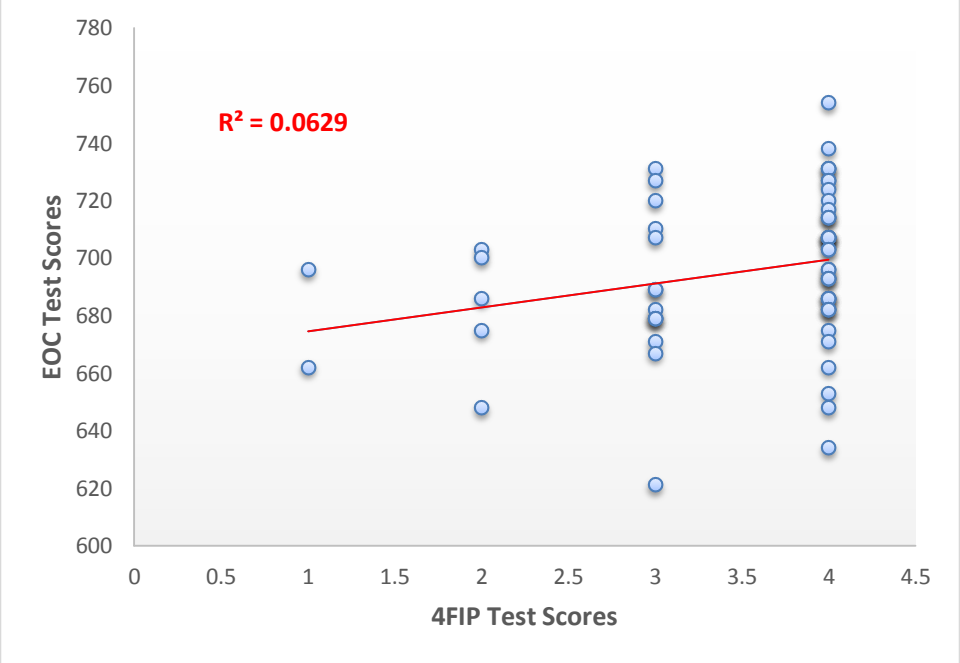

Figure 7. EOC scores plotted against the 4th FIP test.

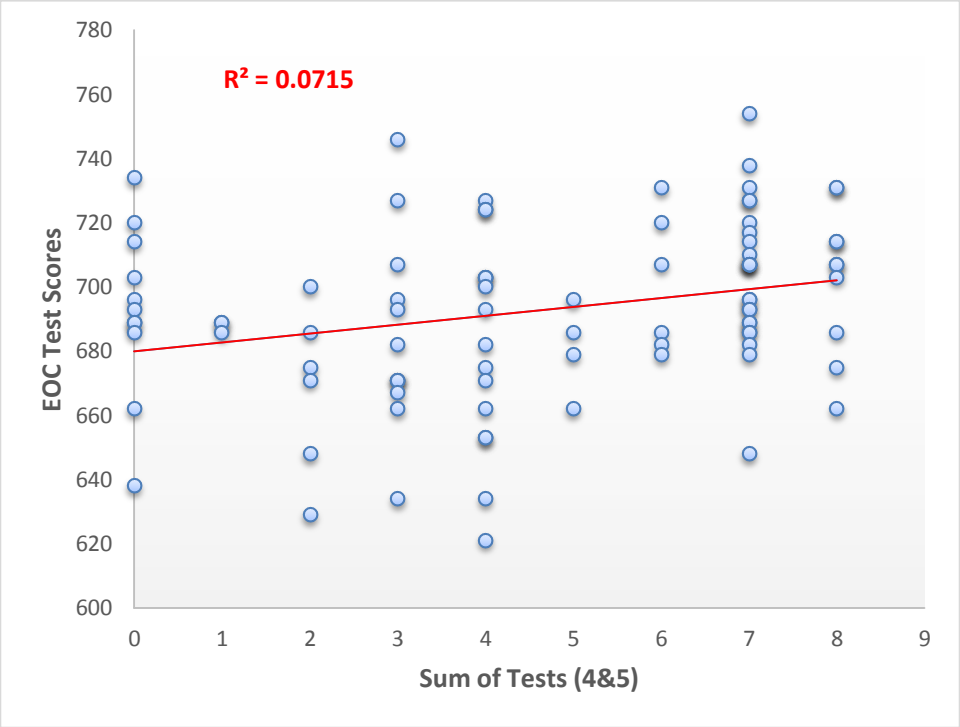

Figure 8. EOC scores plotted against the sum of FIP tests (4&5).

Figure 9. EOC against the sum of all English II FIP tests.

4.3. English III

Eight (8) FIP tests were administered in English III during the course. Out of the eight tests, tests 5 and 7 had the highest correlation coefficient. Below is the *Pearson r* result together with the corresponding R^2 values; see Table 10 and 11.

Table 10. Pearson r-value of English III FIP tests compared with the EOC test

	1FIP	2FIP	3FIP	4FIP	5FIP	6FIP	7FIP	8FIP	EOC
1FIP	1								
2FIP	0.09	1							
3FIP	0.11	-0.08	1						
4FIP	0.08	-0.06	0.38	1					
5FIP	0.08	-0.06	0.12	0.28	1				
6FIP	0.01	0.02	0.05	0.10	0.07	1			
7FIP	0.04	-0.01	-0.16	-0.02	0.13	0.16	1		
8FIP	0.00	-0.14	0.20	0.21	-0.03	-0.11	-0.11	1	
EOC	0.02	0.01	0.18	0.16	0.26	0.18	0.41	0.12	1

Table 11. R^2-value of English III FIP tests to the EOC test

	1 FIP	2 FIP	3 FIP	4 FIP	5 FIP	6 FIP	7 FIP	8 FIP
R^2	0.00	0.00	0.03	0.03	.0.07	0.03	0.17	0.01

Below is the R^2 and correlation coefficient result for the sum of the two tests that had highest correlation coefficient and the sum of all FIP tests compared with the EOC test; see table 12.

Table 12. Pearson r and R^2-value of English III FIP test compared to EOC test

	Pearson r	R^2
Sum of test (5,7)	0.37	0.14
Sum OF score (all)	0.32	0.10

The following graphs show the FIP tests that had highest *r-values* against the EOC. Each circle represents one student. The line of best fit was computed using linear regression analysis on Excel. In the graph are the R^2 values for each data set; se Figure 10 through 13.

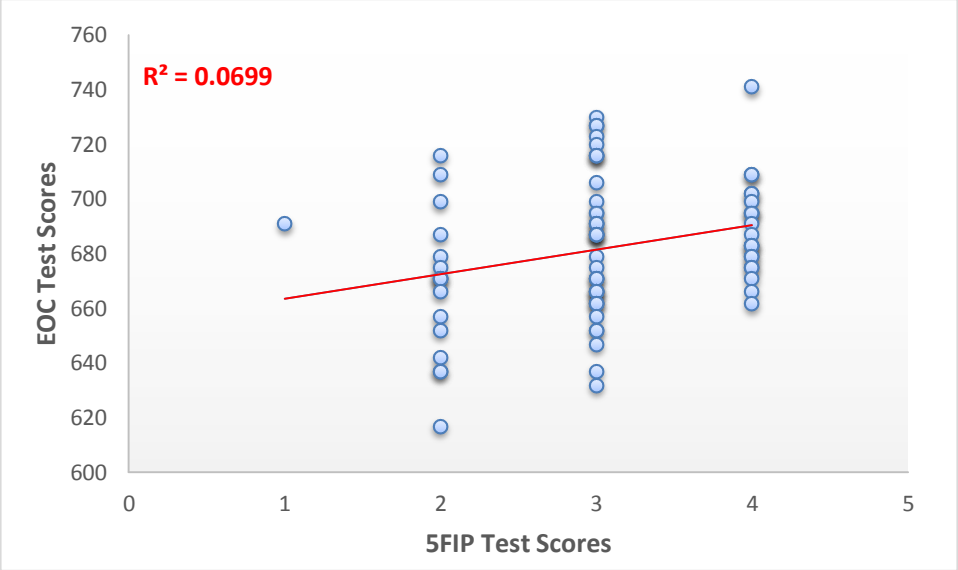

Figure 10. EOC scores plotted against the 5th FIP test.

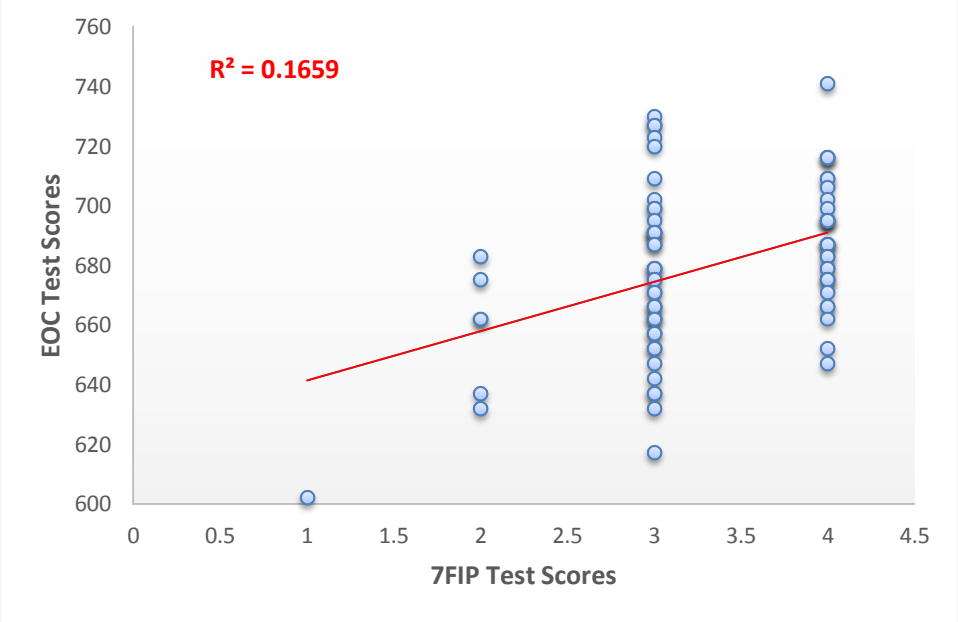

Figure 11. EOC scores against the 7th FIP test.

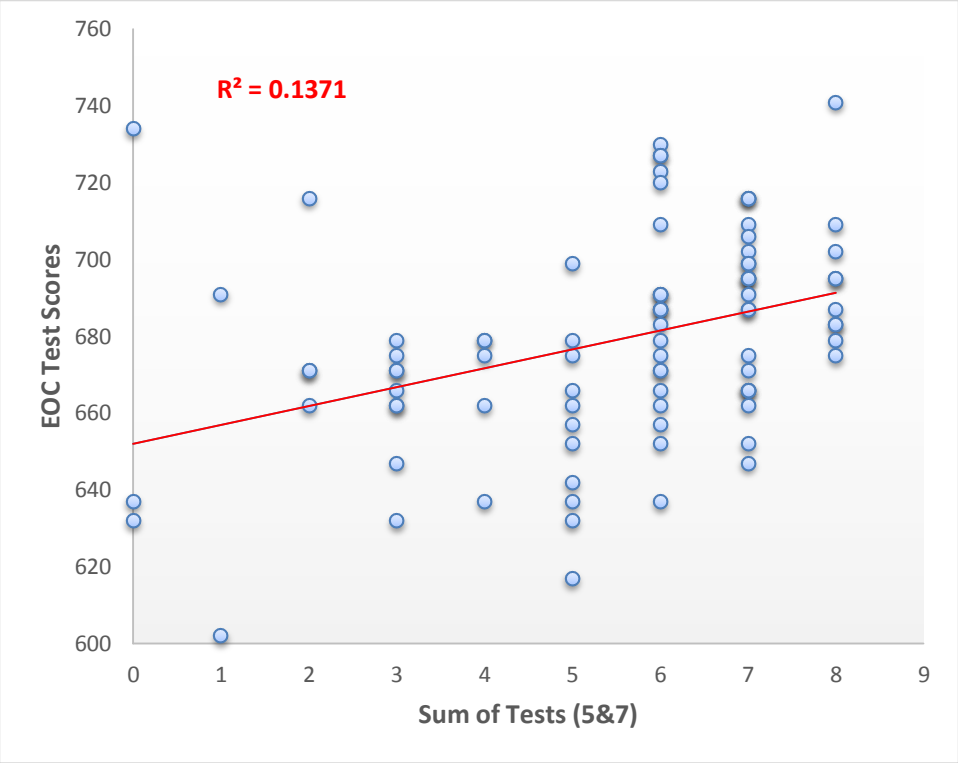

Figure 12. EOC against the sum of tests 5 & 7.

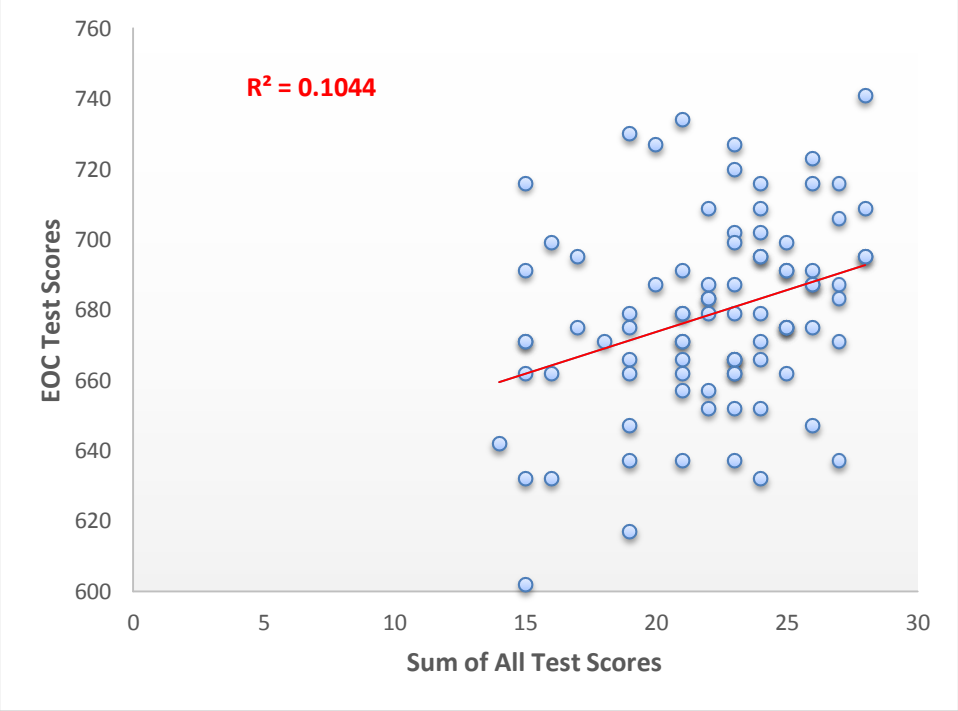

Figure 13. EOC against the sum of all the English III FIP tests.

4.4. Geometry

In geometry, there were eight (8) FIP tests that were administered during the school year. The correlation coefficient analysis generated tests 2 and 3 had the highest amongst the tests; see Table 13. The R^2 value was also computed; see Table 14.

Table 13. Pearson r-value of Geometry FIP tests compared with the EOC test

	1FIP	2FIP	3FIP	4FIP	5FIP	6FIP	7FIP	8FIP	EOC
1FIP	1								
2FIP	0.19	1							
3FIP	0.09	0.06	1						
4FIP	0.23	0.25	0.03	1					
5FIP	-0.19	0.10	-0.10	0.02	1				
6FIP	0.15	-0.03	-0.04	-0.07	0.16	1			
7FIP	0.09	0.20	-0.11	0.31	0.20	0.09	1		
8FIP	0.26	0.07	-0.31	0.08	0.10	0.31	0.42	1	
EOC	0.04	0.20	0.14	0.09	0.05	0.07	0.04	-0.07	1

Table 14. R^2-value of Geometry FIP tests to the EOC test

	1 FIP	2 FIP	3 FIP	4 FIP	5 FIP	6 FIP	7 FIP	8 FIP
R^2	0.00	0.04	0.02	0.01	.0.00	0.00	0.00	0.01

Below are the R^2-value and correlation coefficient results for the sum of the two tests that had highest *Pearson r* value and for the sum of all tests; see Table 15.

Table 15. Pearson r and R^2-value of Geometry FIP test compared to EOC test

	Pearson r	R^2
Sum of test (2,3)	0.25	0.06
Sum of all score	0.19	0.04

The graphs presented below show the EOC scores of 95 students plotted against each FIP test. In each graph, each circle represents one student. The line of best fit was computed using

linear regression analysis on Excel. In the graph are the R^2 values for each data set; see Figure 14 through 17.

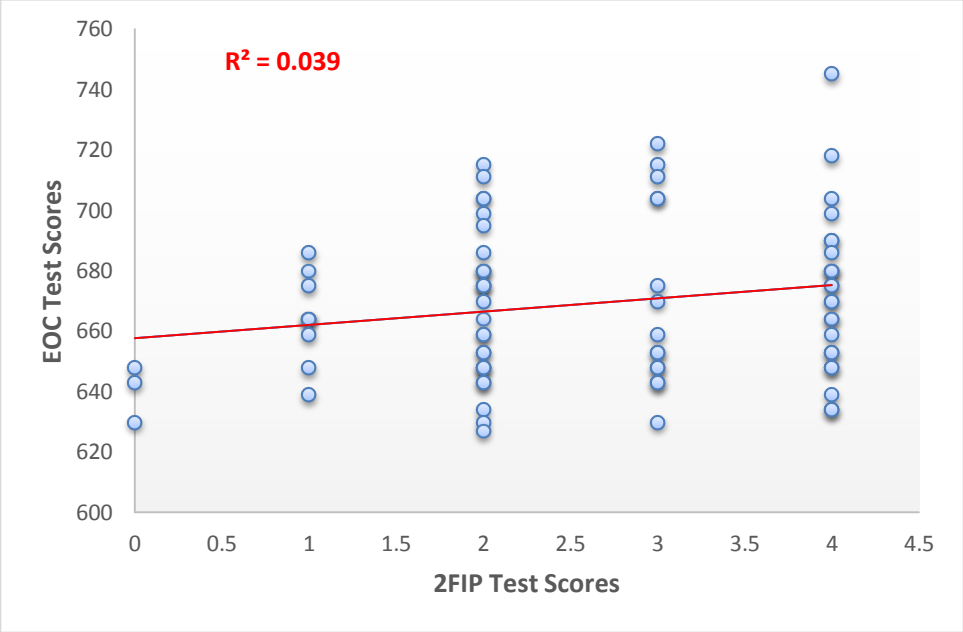

Figure 14. EOC scores plotted against the 2nd FIP test (Geometry).

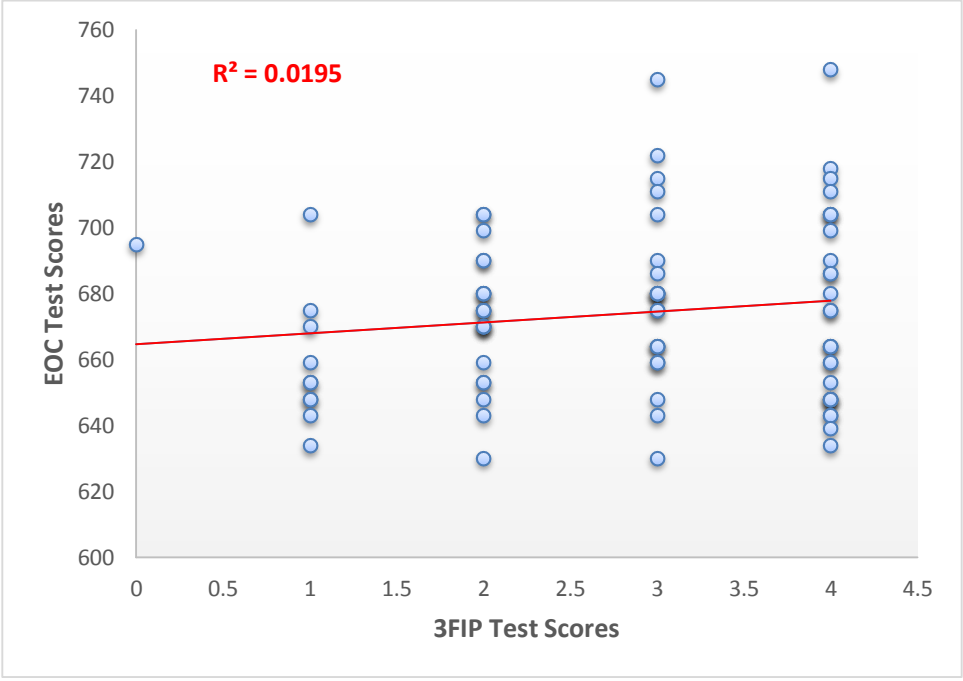

Figure 15. EOC scores plotted against the 3rd FIP test in Geometry.

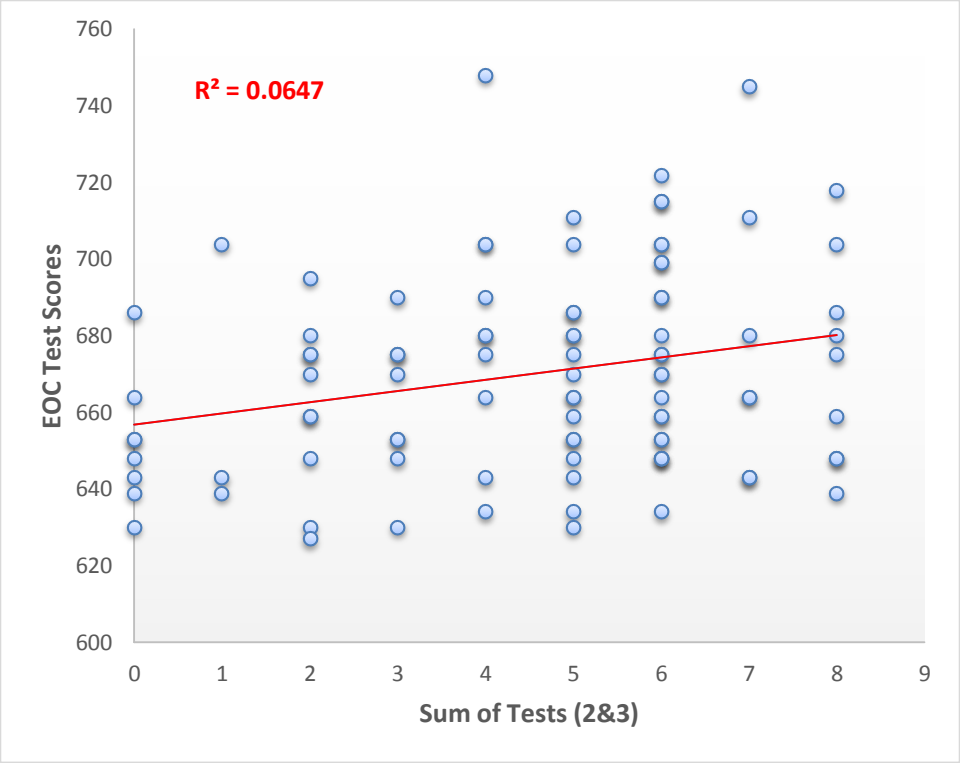

Figure 16. . EOC scores plotted against the sum of tests 2 and 3 in Geometry.

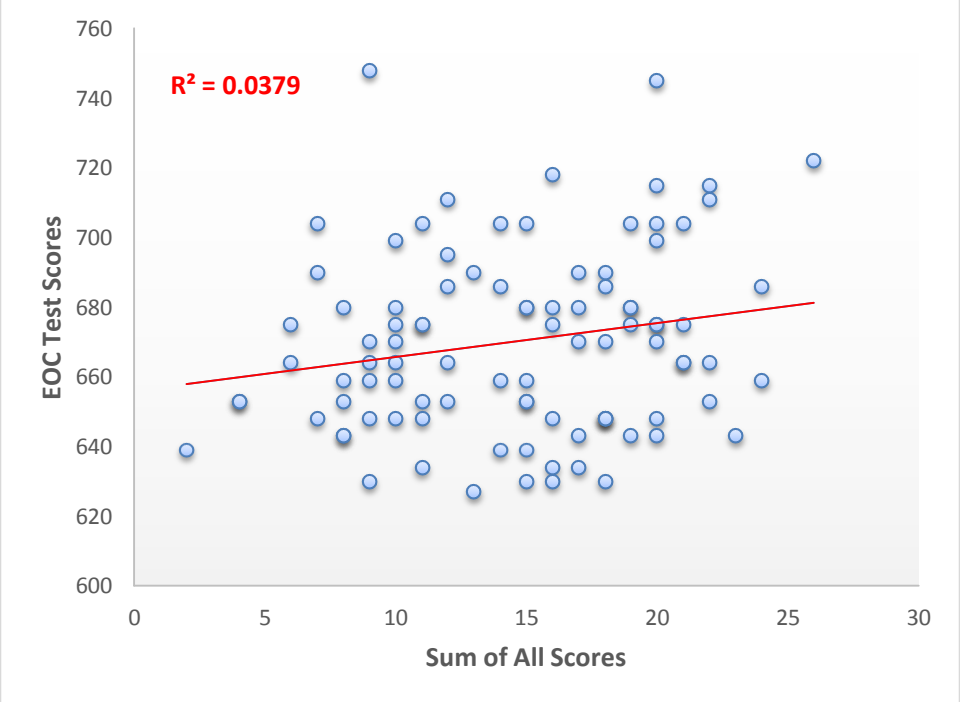

Figure 17. EOC against the sum of all the Geometry FIP tests.

4.5. U.S. History

The correlation coefficient analysis of all eight FIP tests that were administered in U.S. History course, as compared with the EOC test scores, are in Table 16, below. Of all the tests given, tests 1, 2, and 7 had the highest *r*-value. In Table 17, the R^2 values of each FIP tests are displayed as compared with the EOC test.

Table 16. Pearson r-value of U.S. History FIP tests compared with the EOC test

	1FIP	*2FIP*	*3FIP*	*4FIP*	*5FIP*	*6FIP*	*7FIP*	*8FIP*	*EOC*
1FIP	1								
2FIP	0.28	1							
3FIP	0.31	-0.18	1						
4FIP	0.08	0.16	-0.05	1					
5FIP	-0.05	0.09	-0.19	0.15	1				
6FIP	0.07	0.02	-0.06	0.19	0.41	1			
7FIP	0.08	0.24	-0.07	0.46	0.19	0.32	1		
8FIP	0.03	0.07	0.04	0.29	0.28	0.34	0.29	1	
EOC	0.34	0.39	0.01	0.15	0.08	0.03	0.24	-0.02	1

Table 17. R^2-value of U.S. History FIP tests to the EOC test

	1 FIP	2 FIP	3 FIP	4 FIP	5 FIP	6 FIP	7 FIP	8 FIP
R^2	0.12	0.15	0.00	0.02	.0.01	0.00	0.06	0.00

Below are the R^2-values and correlation coefficients for the sum of the tests that had highest Pearson r value and the sum of all FIP tests as compared with the EOC test; see Table 18.

Table 18. Pearson r and R^2-value of U.S. History FIP test compared to EOC test

	Pearson r	R^2
Sum of test(1,2)	0.32	0.10
Sum of test(1,2,7)	0.25	0.06
Sum of all test	0.08	0.006

Below are the graphs of the EOC test scores of the 86 students taking U.S. History plotted against the various FIP tests. Each circle represents one student in each graph. The line of best fit was determined using linear regression analysis on Excel. In the graph are the R^2 values for each data set; see Figure 18 through 22.

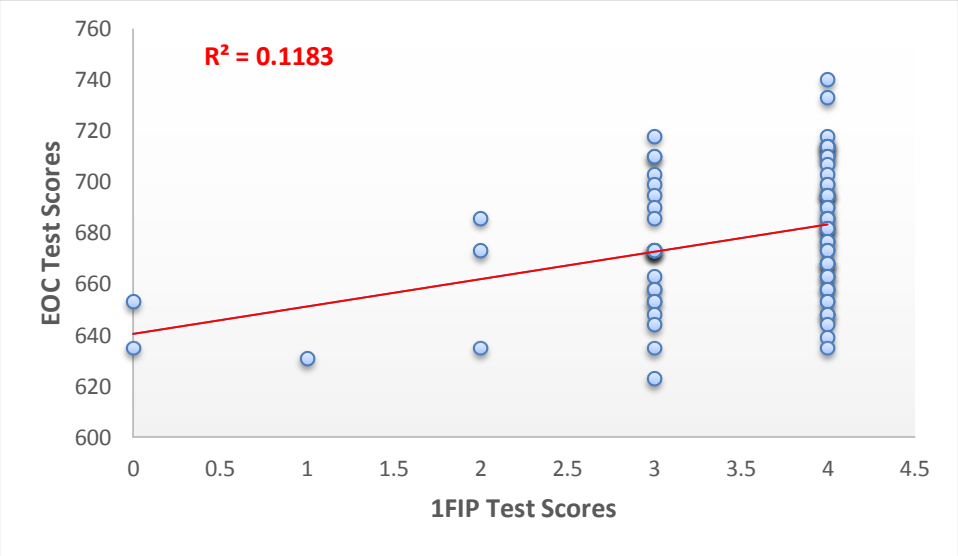

Figure 18. EOC against the 1st FIP test in U.S. History.

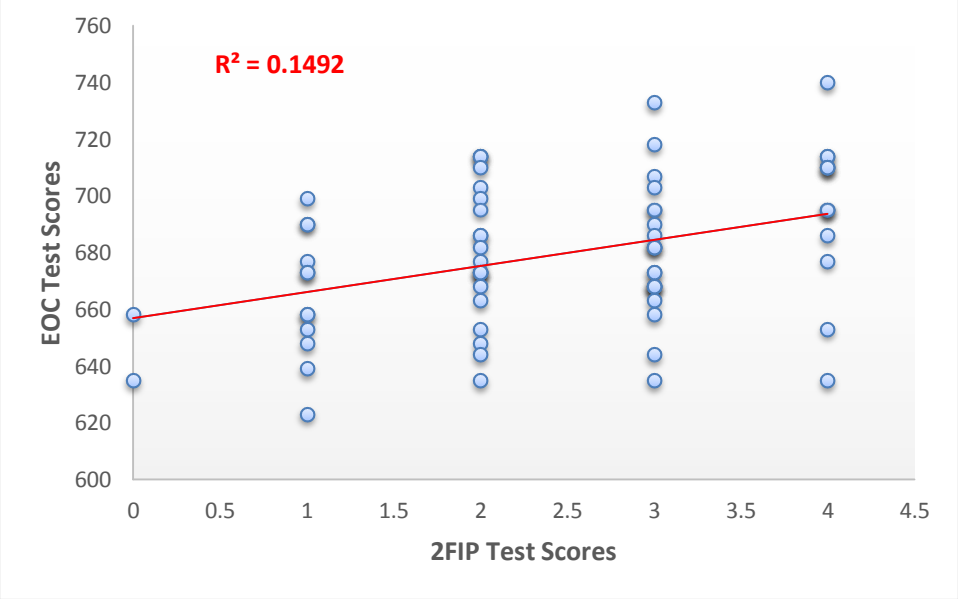

Figure 19. EOC against the 2nd FIP test in U.S. History.

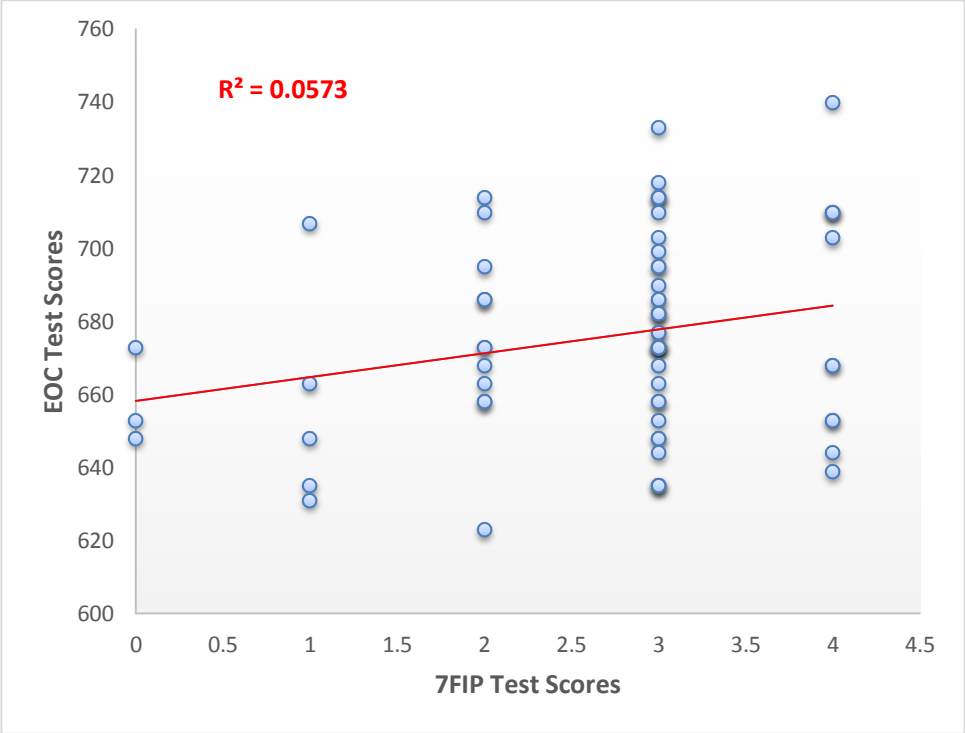

Figure 20. EOC against the 7th FIP test in U.S. History.

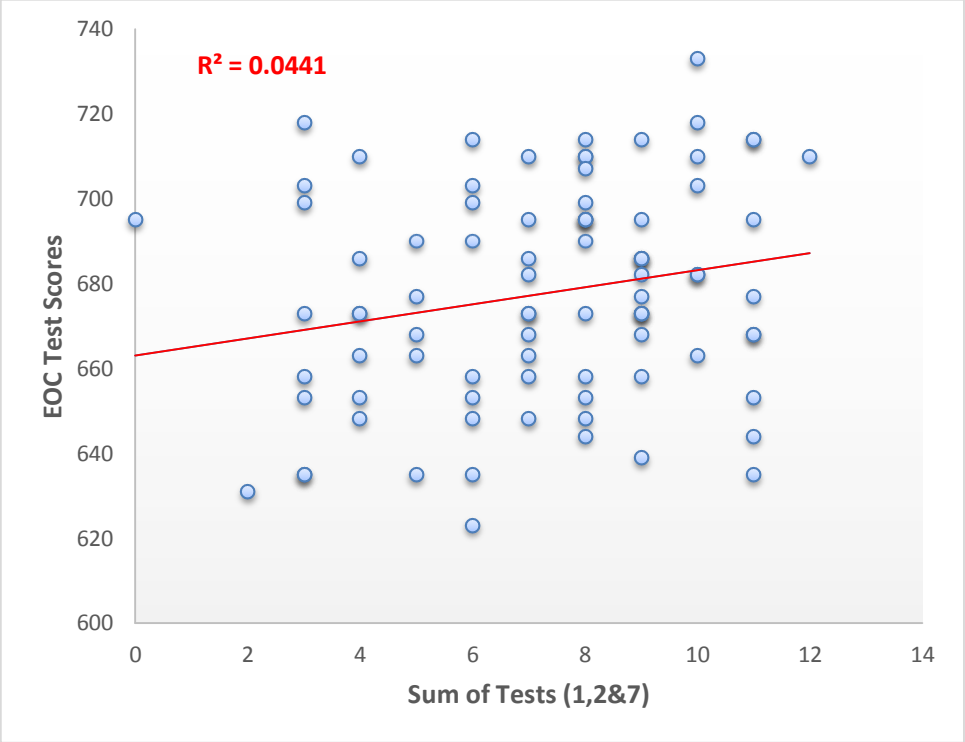

Figure 21. EOC against the sum of tests 1, 2, and 7 FIP in U.S. History.

Figure 22. EOC against the sum of all U.S. History FIP tests.

CHAPTER V
INTERPRETATION OF THE DATA AND CONCLUSIONS

The purpose of this study was to determine the usefulness of the teacher-made FIP tests in predicting the EOC test scores. Linear regression models were used to gauge the degree of correlation between the FIP tests score and the End-of-Course tests score. The present chapter summarizes the descriptive interpretation of the data as presented in the preceding chapter and draws conclusions.

5.1 Summary of Findings

Based in the correlation coefficients in Algebra 1, FIP tests 1, 2, and 8 had the most value in predicting the end-of-course test. The Pearson *r*-values were 0.44, 0.33, and 0.29 respectively, suggesting that these test scores are related to the scores of EOC test. The R^2-value of the sum of tests 1 and 2 was 0.24, and no higher R^2 could be obtained from any other combination. An R^2 of 0.24 is generally regarded as a weak relationship. Information with this level of correlation is arguably not very useful for making decisions on a student-by-student basis.

In the result of the analysis on English II, the FIP tests 3 and 4 have the highest correlation coefficient of 0.23 and 0.25. The skills tested were to some degree related to the skills tested in the EOC. However, the R^2-value of 0.07 for their sum implies that neither of these two tests was a useful predictor of EOC. All of the other tests had very low R^2-value, and as predictor had no value at all.

In English III, FIP tests 5 and 7 generated the highest *r*-value of 0.26 and 0.41. However, the R^2 of 0.14, for the sum of the two tests is too small to regard them as predictors of the EOC

score. All other tests had very low correlation coefficients and regression value, and were of no value as predictors.

In the Geometry course, out of the eight FIP tests given during the year, tests 2 and 3 had the highest correlation values of 0.20 and 0.14 respectively. The R^2 value of the sum was 0.06—too small to be of any use as a predictor of scores in the EOC. The rest of the tests had very low *r* values.

In U.S. History, FIP tests 1, 2 and 7 had the highest correlation coefficient value of 0.34, 0.39, and 0.24. The R^2-value of the sum was less than 0.1—too small to conclude that these tests were predictors of the EOC test. All other tests had much lower R^2.

To explore further, we summed up all the scores on all 1st tries on the FIP in each academic subject, and computed the correlation coefficients with respect to EOC. See Table 19.

Table 19. R^2, r-value and P-value of the sum of 1st FIP tests in each subject with the EOC test

	Algebra I	English II	English III	Geometry	US History
Pearson r	0.39	0.38	0.32	0.19	0.08
R^2	0.15	0.15	0.10	0.04	0.01
P-value	0.00	0.00	0.00	0.06	0.54

We also took the average of all FIP tests including the scores on the final tries, i.e., the 2nd score whenever the test was repeated, and computed *r* and R^2 with respect to EOC. See Table 20.

Table 20. R^2, r-value and the P-value of the sum of all FIP tests in each subject with the EOC test

	Algebra I	English II	English III	Geometry	US History
Pearson r	0.44	0.21	0.35	0.22	0.22
R^2	0.20	0.04	0.12	0.05	0.05
P-value	0.00	0.04	0.00	0.03	0.03

We can see that the highest R^2-value amongst the five academic subjects is 0.20, which is generally considered to be a very weak correlation.

Interestingly, an unpublished thesis similar to our study about using teacher-made tests in predicting the EOC test was written by Jegart (2012). She analyzed the whole high school geometry curriculum and created unit tests based on previous state tests and benchmark assessments. She found that only one unit test out of the eight that she made had a modest correlation to the EOC (R^2<0.29).

5.2 Conclusions

This study aims to determine the effectiveness of a teacher-made FIP tests in predicting the end-of-course state test. This thesis does not say anything about whether the FIP process is advantageous, or how much gain in EOC might be obtained by employing the process. It does show that the teacher-made FIP tests have limited value in predicting the EOC test. Despite some notions that the FIP tests scores were good predictors for EOC test score, the student's actual FIP test score and their EOC test score proved otherwise *(See Appendix A-E).*

Some tests showed some relationship to the EOC test. The skills measured in these tests were likely to have been in the EOC, as manifested on their correlation coefficient value. However, when all tests were combined or when a combination of the most strongly correlated tests was examined, these were still of little value in predicting the EOC tests scores. The R^2-value that quantifies how informative each FIP test is with respect to EOC test is too small ($R^2 \leq$ 0.20) to conclude that the FIP tests were good predictors of the EOC test.

This does not mean that there was no relationship at all. The result of the P-value at 95% confidence level is very significant. Three academic subjects namely: Algebra, English II, and

English III, had a very high level of significance (P<0.00), which indicates that the FIP tests on these academic courses are surely related to the EOC test. However, knowing that there is surely a relationship does not mean that the relationship is useful to everyone. There is surely a relationship between playing the lottery and winning the lottery, but this does not mean that it is good to play. Similarly, the FIP tests are not meaningless, but in general they leave more than ¾ of the variation in the EOC unaccounted for.

Information about skills covered in the EOC test is very valuable to teachers in helping them prepare curricula for their courses. Scores on some FIP tests are weakly correlated with the EOC test, and may measure skills that are needed for EOC. On the other hand, a majority of the FIP tests that we examined are uncorrelated with EOC. This suggests a communication failure. Teachers are unable to make meaningful decisions about what to teach, except in a limited number of areas. Even for the FIP tests that have correlation with EOC, we do not know if they are measuring the narrow skills that they were intended to measure, or some other skills that are needed for the EOC.

In closing, these findings need to be kept in perspective. We did not set out to determine the over-all value of the FIP process, and we have nothing to say for or against FIP as a total program.

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APPENDICES

APPENDIX A

GEOMETRY FIP TEST SCORES AND EOC TEST SCORES

Student Number	Geometric Figure		Develop Rules		Proving Formal		Similar Triangles		Dilation/Translation		Triangle Similarity		Using Similarity		Solving right triangle		EOC
	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	
1		3			4		1	3	0	3	1	2	2	3	1	2	748
2	1	4	4		3		1	2	2	4	3		3		3		745
3	3		3		3		4		2	2	3		4		4		722
4	3		4		4		3		2	2							718
5	3		3		3		2	3	3		3		2	3	3		715
6	2	3	2		4		1	2	3		2	2	2	2	4		715
7	2	3	2		3		0	3	1	3	3		1	3			711
8	2	3	3		4		2	2	3		3		2	3	3		711
9		4					1	3	0	2	1	2			0		704
10	1	4	1		4		1	3	3		2	2			1		704
11	2	2	4		4		3		1	2	3				2		704
12	2	2	4		4		3		1	3	1		3		2	2	704
13	1	4	3		3		1	4	3		2	3	3		3		704
14	0	4	2		4			3	3		1	3	2	3	2	3	704
15	3		3		2		3		1	3	2	2	3		4		704
16	3		2		4		1	2								3	699
17	2	3	4		2		3		2	2	1	2	3		3		699
18	2	3	2		0		1	2	2	2	1	4	1	2	3		695
19	3		3		3		1	4	3		2	3	3		2		690
20	2	0	2		4		3		2	2	0		2		3		690
21	4				3												690
22	3				4			0	1	3	4		0	2	1	1	690
23	2	3	4		4		2	2	1	3	4			2			686
24			4		4		1	4	3			3			2		686
25		2	4		4		2	3	4		3		4		3		686
26	2						1	2	3		3		3		2	2	686
27	3		4		4		3		3			3	2	2	1		680
28	1	3					0	2	3		2	3	0	1	0		680
29		4			4		1	2	2	2	1	4			3		680
30	3		4		3		3		1	3	4		1	2		3	680
31	1	4	4		2		3		2	2	0		2	2	2	2	680
32	3		2		3		3		2	3	2	3	2	2	2		680

33	1	0	2		2		1			2			2	1	2	2	680
34	0	3	1		3						2	2	2	3	0	2	680
35			4		2		3		2	2			2	1			675
36	3		3		2		1	3	3			3			1		675
37	4		4		4		0	2	3		2	3	1	2	2	2	675
38	1	3	1		2		1	3	2	2	1	3	1	1	2	3	675
39		3	2								2	2			2	2	675
40	2	4			2		2	2	1	2	3		2	3	4		675
41	4		4		1		2	4	3		3		3		1	2	675
42	4		2		4		2	1	0				3		4		675
43	3				3		1	2	3								675
44	2	3			2		3		3		1	3	2	3	2		670
45	1	2	4		2		4		3		2	4	4				670
46	2		2		1		1			0					3		670
47	1	3	4		2		1	3	3			3	3		4		670
48	1	4	3		2		1	3	3		1	3	3		3		670
49	4		4		2		1	3	2	3	4				4		664
50	4		1		3		3		3		2	3	2	3	3		664
51	2	2	1		4		0	2	0	2	1	2	1	2	0	1	664
52	0	3	1		4			2	3		2	3			0		664
53		3	2		4												664
54	4		4		3		3		1	3			4		3		664
55							1	4	3		3		3		2	3	664
56			4		4		3		1	3	1		1	2			659
57	2	4	4		4		1	2	3		3		3		4		659
58	2	3	2		3						1						659
59	1	4			2		4		3								659
60	3		2		4												659
61	3		3		3		1	2	1	2	1			3	2	3	659
62	2	3	4		2		1	2	3		3		2	2			653
63			1												3		653
64		2	2		2		1	2	1	2					2		653
65	2		2		4		3		3		3		2	2	3		653
66	1	4	3				1	4	3		2	3	2	3	3		653
67	1		2		1		0	2		2				2			653
68								3	2	2	0		3		3		653
69		4	4		1		2	3	3		2	3		2		3	653
70	1	3	2		3		3		3		3		1	3	2		648
71			1		1		3						2	3	4		648
72			0				1	2	3		3						648
73	2		2		4			0	1	2	1	3		2		1	648
74	3		4		4		3		1	3	1		2	3		3	648
75	2	4	2		4		1	2	2		1	4	3		3		648

76		3	3		2		0						0	1	4		648
77	3		2		1		2	2	3		2	3	2	2	3		648
78	2	4	3		3		1	2	0	1	2		2	3	3		648
79	3		4		3		1	2	3		2	2			2		643
80	3		3		4		2	3	3			3	3		2	3	643
81	3		2		2		2		3		3		4		4		643
82	1		2		3								0	1	2	2	643
83	2	3	3		4		2	2	3		2	3	3			3	643
84	1		0		1		1	3	2	3	4		4		4		643
85	0	3	3		2		0	2	1	2	3		3		2		639
86	1	4	2		4		0			2							639
87	3						2	3	1	3	3		3		3		639
88	2		1		1		1	2	0	1	3		3		4		634
89	2	4	2		2		1	2	3		2	3			0		634
90	2	2	4		1		1	3	2	2			4		3		634
91	2	2	2		3		1		2	2	2		1	3	2	2	630
92	4		0				1	2	2	3	3		2		4		630
93	3		3					4	3		2	3	3		4		630
94	3				2			2	0	2	1	2	1		2	2	630
95	1	3	2				3		2	3		2	3		2	3	627

Legend:
FIP - 1st test
ST - 2nd test

Legend (FIP & ST):
(0-2) - Not Proficient
(3-4) - Proficient

APPENDIX B

ALGEBRA I FIP TEST SCORES AND EOC TEST SCORES

Student Number	Linear Function		Linear Inequality		Systems of Equation		Groupings		Elimination		Simplifying radicals		Quadratic		Evaluate Exp		EOC
	FIP	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	
1	4		4		3		2	3	2	3	3		4		4		735
2	4		3		2	3	4		2	3	2	1	4		1	2	731
3	3		3		3		1	3	4		2	2	2		1	3	728
4	2	3	3		4		4		2	3	4		3		4		728
5	3		3		3		3		3		3		4		4		720
6	4		4		1	3	3				3		3		4		716
7	2	3	3		2	3	3		2	3	3		4		4		716
8	1	3	2	3	4		3		3		3		2		4		711
9			3						3		4		2		4		707
10	3	3	3		3		3		3		4		3		4		707
11	2	2	1	1	2	3	2	3	2	3	3		3		1	2	707
12	4		3						3		4		4		4		707
13	2	2	2		1	4	3		4		4		4		3		703
14	2	3	1	3	4		0	3	4		3		3		4		703
15	2	3	2	3	3		1	3	3		3		4		4		703
16	3		3		3		3		2	4	4		4		2		703
17	3		3		3		3		2	3	4		2		3		703
18	1	3	3		2		2	4	2	3			3				698
19	2	2	1	1	0	2	3		3		2	2			2	3	698
20	2	2	3		1	3	1	2			3		1		2	3	698
21	3		4						2	4	3		4		4		698
22	3		4		1	3	3		3		4		3		4		698
23	3		1	3	1	3	1	3	3		3		4		0	3	693
24	2	3	4		2	3	2	3	3		4		0		3		693
25	3		2	2					4		4		4		3		693
26	1	2	4		1	3	2	3	3		3		4		2	3	693
27	4		2	3	3		3		3		3		4		4		688
28	0	2	1	2	4		3		4		2	1	4		4		688
29	0	1	3		3		3		4		3		4		4		688
30	1	2	1	2	2	3	3		0	3	4		3		2	3	688
31	2	3	2	3	1	3	1	2	1	3	3		3		4		688
32	3		4		4		3		4		4		3		4		688

33	2	2	4		1	3			4		1	3	3		4		688
34	3		3		3		3		3		4		3				683
35	3		2	3	3		4		4		3		3				683
36	2	2	2	3	3		3		0	3	4		4		2	2	683
37	1	2	0	1	1	3	3		0	2	2	2	4		4		683
38	2	2	2	2	1	3	0	2	1	2	4		3		3		683
39	2	3	3		0	4	3		3		4		4		3		683
40	1	3	3		3		4		3		4		4		4		683
41	4		4		3		4		4		4		4		4		683
42	1	2	3		3		0		3		3		4		4		678
43	2	2	2	2	1	3	3		4		3		4		2	3	678
44	2	2	2	1	3		3		1	3	3		4		3		678
45	1	2	2	2	1	3	2	2	2	3	3		4		2	3	678
46	1	2	2	2	1	2	1	3	3		4		4		4		678
47	0	2	0	1	0	3	2	3	2	3	3		4		2	3	678
48	4		4		3		4		3		4		4		3		678
49	3		4		2	3	3		3		3		3		4		678
50	0	2	2	2	2	3	1	2	3		3		3		4		678
51	2	2		3	0	1	0		3						0	3	672
52	1	2	2		2	3	1		3		3		4		3		672
53	1	2	4		0	2	0	1	0	2	3		4		1	2	672
54	2	3	2	2	1	4	2	3	2	3	3		3		3		672
55	3		2	3							2	3	4		3		672
56	2	3	2	2	0	2	2	3	1	2	3		3		2	2	672
57	1	2	2	2	2	4	4		4				4		3		667
58	0	2			3		3				3	2	0		1	3	667
59	3		3		0	4	3		3		3		4		3		667
60	0	2	2	2	3		2	2	3		3		3		3		667
61	0	2	1	1	3		3		1	3	2	2	4		1		667
62	1	2	4		2	3	4		3		4		4		2	3	667
63	2	3	4		3		4		3		4		4		3		667
64	4		2	3	1	3	3		3		4		4		4		667
65	0	2	2	3	1	2	2	1	4		1	2	3		1	3	667
66	3				1	2	2		4		2		4		4		661
67	0	3	1	3	3		4		3		3		3		4		661
68	2	2	1	3	4		3		1	2	3				4		661
69	0	2	2	3	3		3		2	3	3		4		2	2	661
70	2	1	3		2	3	3				2	2	4		1	2	661
71	4		3		3		1	3	3		4		3		4		661
72	1	2	3		1	3	2	3	4		3		4		3		661
73	0	2	1	1	3		3		3		3		4		4		656
74	1	2	1	2							3		4		4		656
75	1	2	0	1	0	1	0		3						0	2	651

76	0	1	3		1	3	2	3			2	2	4		3		651
77	2	2	3		3		3		3		3		0		1	2	651
78	1	2		2	2	3	3		2	3	3		4		2	3	651
79	2	2		2	1	2	1	2	0	3	3		4		2	2	651
80	1	1	1	2	3		4		2	3	3		0		3		651
81	1	3	4		2	3	3		3		4		4		3		651
82	0	2	2	3	1	2	2	3	2	3	3		0		1	2	651
83	3			3					3		2	3	4		1	3	646
84	1	2	2		1	3	4		3		2	2	4		3		646
85	3		2		0	3	3		4		3		4		0	2	646
86	0	2	1	2	1	2	2	3	2	2	3		2		4		646
87	0	2	1	2							4		4		4		641
88	0	1		2	2	2	2	3	0	2	4		4		2	3	641
89	2	3	3								3		3		3		641
90	3		3		3		3		3		2	3			1	2	636
91	0	1	1	2	3		2	2	4		2	2	3		2	2	636
92	1	3	1	1	0	3	3		2	3	2	2	3		0	2	636
93	1	2	1	2	2	3	3		4		4		4		2	3	636
94	0	2	1	2	1	2	2		4		3				0	2	631
95	0	2	1						4		3		1		3		631
96	1	2	2	2	4		3		0	3	3				2	2	631
97	3		3		3		4		4		4		3		4		623

Legend:
FIP - 1st test
ST - 2nd test

Legend (FIP & ST):
(0-2) - Not Proficient
(3-4) - Proficient

APPENDIX C

ENGLISH II FIP TEST SCORES AND EOC TEST SCORES

Student Number	Characterization		Author's Craft		Making Inferences		Author's purpose		Main Idea		Using Info resources		Context Clues		EOC
	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	FIP	ST	
1	3		3		3		4		4		2		3		754
2	2	4	3		3				4		4		3		746
3	4		4		3		4		3		2	3	3		738
4	2	2	2	2					4		4		4		734
5	2	3	4		3		3		2	4	4		1	2	731
6	4		2	4	4		4		3		4		3		731
7	3		2	4	4		4		3		4		4		731
8	2	2	4		3		4		4						731
9	2	4	3		3		4		4		3		3		727
10	1	1	2	3	4		3		4		2		2		727
11			1	3	3				4		3		4		727
12	4		3				4		3		4		4		727
13	3		1	4	4				4		3		3		724
14	3		2	2			4		3		3		4		724
15					3		4		4		4		4		720
16	4		3						4		4		2		720
17	3		4		3		3		4		4		3		720
18	4		4		3		4		3		3		3		717
19	4		4		4		4		4		3		4		714
20	4		3		3		4		4		3		3		714
21	4				4		4		4		4		4		714
22											2		3		714
23	4		4		4		3		4		3		3		710
24	4		4		4		4		3		3		2	3	707
25	4		4		4		4		3		3		2	3	707
26	2	4	1	3	3		4		4		4		2	3	707
27	4		3		3		4		4		3		4		707
28	4				3		4		4		4		4		707
29	2		3		3		3				4		4		707
30	3		4		3				4		4		3		707
31	4		3		3		4		1	3	2				707
32	4		2	3			4		4		2		4		703

33	1	4	4		4		4						2		703
34	1	2	3		4				3		4		4		703
35	3		2	3					3				3		703
36	4		4		2		2		3		1				703
37	4		3		4				4		2		3		700
38							2		4				4		700
39	3		4		3		4		3		4		3		696
40	4			4					4		3		3		696
41	3		2	3	3				4		4		4		696
42	4		3		3		4		4		4		4		696
43	2	2	2	3	4		1		4		4		4		696
44	4		2	4	3		4		3		1	3	2	3	693
45	4		1	4			4		4		3		3		693
46					3				4		2		4		693
47	2	3	3		3		4		4				4		693
48	1	3	4						4		2				693
49	1		3		1				4		3		0		689
50	2	3	4						4		3		4		689
51	4								1	3	2		4		689
52	3		3		4		3		4		3		4		689
53			4		4		3		2		4		3		689
54	4				1				2		3				689
55	3		3		3		4		3		3		3		686
56	1	4	1	2	2		4		4		1		4		686
57	4		3		3		4		4				3		686
58	2	4	4						4						686
59	4		1	4	3		2		4						686
60	3		3		1				3		4		3		686
61	2	2			2						4				686
62	0	3	3		4		4		3		4		4		686
63	2	2	2	4			3		3		3		3		682
64	2	4	1	4			4		4				4		682
65	1	4	4		3		4		4		4		4		682
66	1				2		4		3		4		4		682
67	4		2	3	3		3		4		3		3		679
68	1	3	2	4	4		3		4		4		3		679
69	4		3		2		3		2		2		3		679
70	3		2	2	4		4				0				675
71	4		4		4				3		4				675
72	4						2		3		4		3		675
73	0	3	2	4	3				4		3		4		671

74			1	4	2				4						671
75	3		2		3				1	3	3		3		671
76	4						3		4				3		671
77	3		4				4		1	3			4		671
78				4			3		4				4		667
79	4		1		4		1		4		4		1		662
80	2	3	4		4				4		4				662
81	4		4		3				3		4		4		662
82	2	3	3		4		4		4		0		4		662
83	4		1	3					1		3		3		662
84	1	4	4		4				4				0		653
85	4		3				4		3				3		653
86	3		2				2		4		3		3		648
87	4		3		3		4		4		2		3		648
88	1	4		4					3		1		0		638
89	3						4		4		4				634
90	3		1	3	3				3		1				634
91	4			3	2				3		4		3		629
92	4				1		3		4						621

Legend:
FIP - 1st test
ST - 2nd test

Legend (FIP & ST):
(0-2) - Not Proficient
(3-4) - Proficient

APPENDIX D

ENGLISH III FIP TEST SCORES AND EOC TEST SCORES

Student Number	Main Idea		Understanding Theme		Drawing Conclusion		Using Textual		Supporting Details		Summarizing text		Standard English		Meaning of Words		EOC
	FIP	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	
1	3		3		4		3		4		3		4		4		741
2	4		4		4		3				4				2		734
3	3						3		3		3		3		4		730
4	2	3	4				4		3		3		3		1		727
5	2	4	2		4		4		3		2		3		3		727
6	1	4	4		4		4		3		4		3		3		723
7	1	3	3		3		3		3		3		3		4		720
8	3		3				4		3		3		4		4		716
9	1	3	4						2	3	4				4		716
10	1	2	4		4		4		3		3		4		3		716
11	2	4	4		4		4		3		3		4		3		716
12	1	3	3		3		4		2	3	4		4		3		709
13	4						4		4		3		3		4		709
14	2	4	4		4		4		4		3		4		3		709
15	1	3	3		4		4		3		4		4		4		706
16	2	3	4		4		4		4				3		2		702
17	3		3		4		4		4				4		2		702
18	2	2	3		4		4		2	4	4		3		3		699
19	1	2	4		3		2		4		3		3		3		699
20							4		3		3		4		2		699
21	2	3	4		4				3		4		4		3		695
22	2	4	3				2	4	4				4		2		695
23	3		2	3	4		4		4		4		3		4		695
24	2	4	3		4		4		4		3		4				695
25	3		4		4		3		3		3		4		4		695
26	1	3	4		4		4		3		3		3		4		691
27	4		4				4		3		4		3		3		691
28	2	4	4				4		4		4		3		4		691
29	2	2	3				3		1	3	3				3		691
30	1	3	3		4				3		3		3		4		691
31	2	3	3		3		4		3		4		4		4		687
32	2	4	4		4		4		3		3		3		3		687

33	3				4		3		2	4	4		4		2		687
34	0	3	3		4		3		3				3		4		687
35	1	3	3		3		4		4		4		4		3		687
36	2	3	3		3		4		3				4		4		687
37	3		3		4		4		4		4		2		3		683
38	3		3		3				4		4		4		1		683
39	1	3	3		3		4		4			2	4		3		683
40	2	4	3		4		4		4		3				4		679
41	4		2				4				4		3		4		679
42	3		2				4		3		3		3		3		679
43	1	2	2		4				2	3	3		3		4		679
44	1	3	2		4		4		4				4		4		679
45	2	4	3		3		4				4		4		2		679
46	1	3	4		4		4		2	3	3		3		4		675
47	2	3	3		1	2	3				3		4		3		675
48	1	2	4		4		4		4		3		2		3		675
49	1	2	4		3		3		4		4		4		3		675
50		2	4		4						3		3		3		675
51	2	4	2		4		3		3		3		4		4		675
52	1	2	3		4				3		3		3		4		671
53	2	4	4		4		4		4		4		3		2		671
54	1	2	2		4		3		2		4				2		671
55	2	4	4		1	1	3		2			3			3		671
56	1	3	3		3		4		3			4		4	1		671
57	1	3	4		3		4		3		3				3		671
58	1	3	4		4		3		2	2	3		4		3		671
59	2	2	3		4		4		3		3		4		1		666
60	2	3	3		4		4		3		2				3		666
61	3		4				4		3		2		3		4		666
62		3	3		34		4		4		3		3		3		666
63	1	3	4		2		2		2		3		3		2		666
64	4		3		3		4		3		2	3	4				666
65	3		4		4				3		3		2		4		662
66	1	2	3		2		4		3		3						662
67	1	1	2		4		4						2		2		662
68	1	3	3		3		4		4		4		3		3		662
69	3		4		4						3		4		3		662
70	1	3	4				3		3		3		3		2		662
71	3		4		3		4				3		3		3		662
72	1	4	3		4				2	3	4		3		4		657
73	1	3	3		4		3		3		4		3		1		657
74	2	4	3		4		3		3		2		4		3		652
75	2	4	4		4				3		3		3		3		652

76	3		4		4				2		4		3		3		652
77	3		4		4				3		4		4		4		647
78	2	3	4		4		4					1	3		2		647
79	1	3	3				3		2	3	2		3				642
80	3		4		4		4		3				3		2		637
81	3		3		4		3		2				3		3		637
82	4		4		4		4		2		3		2	3	4		637
83	2	2	3		4		4				3				3		637
84			2				2		3		3		2		3		632
85	2	3	3		4		4				4		3		4		632
86	3		4		3		2				3				1		632
87	2	3	4		1	2	2		2		3		3		2		617
88	1	3	3				4				2		1		4		602

Legend:
FIP - 1st test
ST - 2nd test

Legend (FIP & ST):
(0-2) - Not Proficient
(3-4) - Proficient

APPENDIX E

U.S. HISTORY FIP TEST SCORES AND EOC TEST SCORES

Student Number	Social & Political		Western Civilization		Lazzes Fair		Progressivism		Causes of Imperialism		WWI Cause/Effect		Technology & Innovation		Great Depression		EOC
	FIP	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	**FIP**	**ST**	
1	4		4		3		2	4	4		3		4		4		740
2	4		3		4		3		3		2	2	3		3		733
3	4		3		2	4	4		3		4		3		4		718
4	3						2										718
5	4		2		4		2	4	3		3				4		714
6	4		2		3		3		3		3		3		4		714
7	4		4		3		3		3		4		3		3		714
8	4		2		3		3		2	4	1	4	2	4	3		714
9	4		4		3		3		3		3		3		4		714
10	4		4		3		3		4		2	1	4		2	2	710
11	4		4		3		3										710
12					2				3		4		4		3		710
13	3						3		4		4		4		3		710
14	4		2		3		1	3			4		2	3	3		710
15	3		4		2		3		3		2	1	3		4		710
16	4		3		2	3	3		3		3		1	3	2		707
17	4		2		3		3		4		3		4		4		703
18	3						3		1	3	1	3	3		0	2	703
19			3		2												703
20	4		1		4		3		4		3		3		1	3	699
21	3				2	3	4										699
22	4		2		4												699
23	4		3		2	3	4		4		4				4		695
24	4		4		3		4		3		3		3		3		695
25	3		2		4		3		2	2	3		3		3		695
26					2												695
27	4		4		3												695
28	4		4		3		3		4		4				3		695
29	4		3		3		4		4		2	1	2	4	4		695
30	4		1						3		2	1	3		3		690
31	3		3		4												690
32	4		1		4		4		3		4				3		690

33	4		2		4		4		3		4		3		4		686
34	4		2		1		2		3		3		3		1	4	686
35	3		4		3												686
36	2						4		2	4	0	3	2	1	3		686
37	4		3		3		4		1	3	2	3	2	2	4		686
38	4		3		3		1	4	3		3				4		682
39	4		3		2		3		4		4		3		4		682
40	4		2		2		4		3		4		3		4		682
41	4		3		4		3		2	0	4		3		3		682
42	4		2		4		3		2	4	1	1	3		3		677
43	4		1		3												677
44	4		4		2		3		3		3		3		4		677
45	4		1		2	4	2	3	4		2	3	2	1	4		673
46	2		2														673
47	3		2		2		3		4		3		2	3	3		673
48	3		1		2		0		1	0	1	3	0	0	0	0	673
49							3		3		3		3		3		673
50	3		3		4		3		3		3		3		3		673
51	3		2		3		3		3		3		3		3		673
52	4		2		4		4		3		3		3		4		673
53	3		3		3		3		4				3		3		673
54	4		3		2		4		4		3		4		3		668
55	4		3		4				2	3	3		4		3		668
56	4		2		2		4		3		3		3		3		668
57	4		3		2		3		1		2	2			2	3	668
58			3		4		3		0	3	2	4	2	2	3		668
59	4						2		2		4				4		663
60	3		2		3		4		3		3		2	4	2	4	663
61	4		3		3		2	3	3		1	1	3		3		663
62	4				4		2	2	2	3	2		1	0	2	0	663
63	4		1		4				3		2	1	3		3		658
64	3																658
65	4		3		2		3		4		2	4	2	3	4		658
66	4		0		4		4		3		4		2	4	4		658
67	3		1		4		3		4		4		3		4		658
68	4		4		3		3		4		4		3		4		653
69	3				4		2	2	2	1	2	2	0	3	3		653
70	4				4												653
71	0		2		0		4		4		4		4		3		653
72	3		1		3		4		2	3	3		4		4		653
73	3		2		2		2	4	1	2	2	3	3		3		648
74	4				4		3		4		2	4	3		2	4	648
75	4		1		3		2		4		3		1	4	4		648

76	4						2		3		3		0	2	1	1	648
77	3		2		4		3		4		4		3		4		644
78	4		3		2	4	3		2		3		4		3		644
79	4		1		4		3		1	2			4		4		639
80	0		0		2	4	2	3	4		3		3		4		635
81	2		2		3		1	2	2	1	3		1	2	2	2	635
82	3				2		3		2		3		3		4		635
83			3		3												635
84	4		4		2		3		4		3		3		3		635
85	1				2				4		2	4	1	4	4		631
86	3		1		4		1	2	3				2	0	3		623

Legend:
FIP - 1st test
ST - 2nd test

Legend (FIP & ST):
(0-2) - Not Proficient
(3-4) - Proficient

APPENDIX F

IRB APPROVED FORM

Application for Exemption from Institutional Oversight

Institutional Review Board
Dr. Robert Mathews, Chair
131 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
irb@lsu.edu
lsu.edu/irb

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/ projects using living humans as subjects, or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.

– Applicant, Please fill out the application in its entirety and include the completed application as well as parts A-F, listed below, when submitting to the IRB. Once the application is completed, please the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at http://research.lsu.edu/CompliancePoliciesProcedures/InstitutionalReviewBoard%28IRB%29/item24737.html

– A Complete Application Includes All of the Following:
(A) A copy of this completed form and a copy of parts B thru F.
(B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1&2)
(C) Copies of all instruments to be used.
*If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
(D) The consent form that you will use in the study (see part 3 for more information.)
(E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training link: (http://phrp.nihtraining.com/users/login.php)
(F) IRB Security of Data Agreement: (http://research.lsu.edu/files/item26774.pdf)

1) Principal Investigator: ROLAND D DANTE **Rank:** Graduate Student

Dept: Mathematics **Ph:** 2256205099 **E-mail:** rdante@ebrschools.org

2) Co Investigator(s): please include department, rank, phone and e-mail for each
*If student, please identify and name supervising professor in this space

James M. Madden
Professor
Dept. of Mathematics
mmmadden@lsu.edu / (225) 9783525

IRB# E8605 LSU Proposal #
✓ Complete Application
✓ Human Subjects Training
✓ IRB Security of Data Agreement

3) Project Title: Effects of Focused Instruction Process (FIP) on Students EOC Test Scores

STUDY EXEMPTED BY:
Dr. Robert C. Mathews, Chairman
Institutional Review Board
Louisiana State University
130 David Boyd Hall
225-578-8692 / www.lsu.edu/irb
Exemption Expires: 1/12/2017

4) Proposal? (yes or no) No **If Yes, LSU Proposal Number**

Also, if YES, either ◯ **This application completely matches the scope of work in the grant**
OR ◯ **More IRB Applications will be filed later**

5) Subject pool (e.g. Psychology students) GLEN OAKS HIGH SCHOOL STUDENTS AND TEACHERS

*Circle any **"vulnerable populations" to be used**: (children <18; the mentally impaired, pregnant women, the ages, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature James M. Madden **Date** 12-16-2013 (no per signatures)

** **I certify my responses are accurate and complete.** If the project scope or design is later changes, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted V Not Exempted ____ Category/Paragraph 4

Signed Consent Waived? (Yes) / No

Reviewer Mathews **Signature** Rob C Mathews **Date** 1/13/14

APPENDIX G

APPROVED DISTRICT LETTER TO CONDUCT THE STUDY

Accountability, Assessment, and Evaluation
Christa McAuliffe Center
12000 Goodwood Boulevard
Baton Rouge, Louisiana 70815
(225) 226-7625 FAX– (225) 226-7605

February 6, 2014

Roland D. Dante
26104 Burlwood Avenue
Denham Springs, LA 70726

Dear Mr. Dante:

Your request to conduct the following research in East Baton Rouge Parish School System is approved.

"Effects of Focused Instruction Process (FIP) on Students' EOC Test Scores"

Glen Oaks High School

We require that all data you collect protect the anonymity of participants, unless they specifically provide you with permission to identify them. It is my understanding that you will provide the East Baton Rouge Parish School System a summary of your research findings, once your project is completed.

We appreciate the opportunity of working with you. If we can be of further assistance, please contact Liz Frischhertz at (225) 226-7625 or lfrischhert@ebrschools.org.

Approved:

Bernard Taylor, Jr. 2-7-14

Dr. Bernard Taylor, Jr. Date
Superintendent of Schools

VITA

Roland Damasco Dante was born in the Philippines. He was the father of three children. He obtained his Bachelor's degree in Secondary Education major in mathematics and Master's degree in Administration and Supervision, both in the Philippines. He came to teach here in the United States in 2008. He is now on his 20th year in the teaching profession. He is the Math Department Head and currently teaching Algebra 2 and Advance Math at Glen Oaks High School, East Baton Rouge Parish.