2001

Effect of Scheduling Methods on Student Scores on the Standards of Learning Assessment in High Schools in Russell County.

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SIGNATURE PAGE

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TABLE OF CONTENTS

TABLE OF TABLES

CHAPTER I

INTRODUCTION

Improving Standards of Learning Scores to meet the state's cut scores of 70% is a concern with school administrators in Russell County. One issue that has surfaced is how best to schedule the day to improve student achievement. Russell County is still using the Carnegie structure of a seven period day schedule with classes 55 minutes in length. The Copernican Plan of teaching students in block schedules is vastly becoming the new way of scheduling. Block scheduling is a limited number of classes taken each semester that are approximately 90 minutes in length.

The most frequently asked questions are: Which method of scheduling improves achievement on Standards of Learning in all subject areas tested and does having more class time increase student achievement? Russell County Schools are searching for the best scheduling method to help raise the Standards of Learning scores in all subject areas.

Statement of the Problem

The problem of this study was to determine which scheduling method would lead to improved student scores on the Standards of Learning Assessment in high schools in Russell County.

Research Goals

The goals of this study were to answer the following questions:

1. What are the advantages and disadvantages of a seven period day schedule on Standards of Learning Scores?
2. What are the advantages and disadvantages of block scheduling on Standards of Learning Scores?
3. What impacts does block scheduling have on Math, Science, English and History Standards of Learning Scores?
4. What impacts does attendance have on block scheduling versus seven period day scheduling?
5. What scheduling method is recommended for Russell County to seek to improve its student's scores on the Standards of Learning tests?

Background and Significance

Russell County is a rural county located in Southwest Virginia. Its population is 28,667 people (1990). Russell County at one time was a farming and mining county. The unemployment rate is now 7.4%. Due to closings of mining industries and the loss of farming, Russell County's population has declined by approximately 2,200 people over each ten-year census period.

Russell County has three high schools consisting of grades 8 - 12 with approximately 1,822 students. There are approximately 3% African Americans and 97% whites that attend Russell County high schools. Approximately 47% of the student population qualifies for free or reduced lunch.

Russell County is currently investigating a change of scheduling methods from their present seven period day schedule to a block scheduling day. A decision for applying a change in schedule is still under investigation at this time.

Russell County administrators have started the 2000-2001 school year looking to see if changing to block scheduling would help meet the state's cut score of 70% on the Standards of Learning Assessment. The administration is aware that the decision to change from seven period days to block scheduling is a very difficult decision and one that is necessary for each individual high school.

This study sought to determine the best scheduling method to improve Standards of Learning Scores by surveying area counties that have implemented block scheduling and comparing their Standards of Learning Scores from the seven period day to their block scheduling. Administrators

in neighbor counties were asked their views on block scheduling and the seven period day scheduling.

Limitations

The limitations of this study were as follows:

1. The survey was limited to administrators in surrounding high schools currently using block scheduling.
2. The same questions were asked to traditional seven period administrators, after they have viewed materials and visited neighboring counties who implementing block scheduling.

Assumptions

This study was based on the following assumptions:

1. A sufficient change in score will be found on the Standards of Learning of those students who have block scheduling versus a seven period a day scheduling.
2. Attendance will be better with block scheduling.
3. Not all subject areas will show improvement by changing to block scheduling.
4. Some administrators will not be willing to make the change to a different scheduling method.

Procedures

To determine which scheduling method is best for improving achievement on the Standards of Learning Assessments, data were collected by surveys from area administrators and Standards of Learning test score data from each area county. These were then compared to determine if scheduling made a difference on students' scoring.

Definitions of Terms

The following definitions were provided to assist the reader in understanding the terms related to this study:

Russell County High Schools: Castlewood High School, Honaker High School, and Lebanon High School.

Carnegie Structure: Students typically enrolled in six courses that meet daily for approximately 45 minutes for the entire 180 school year.

Block Schedules: Schedules in which students take a limited number of classes for 90 minutes each semester.

Alternate Day Schedules: Students and teachers meet every other day for a longer length of time.

Overview of Chapters

Chapter I was an introduction to block scheduling, Standards of Learning Assessment and the need to restructure in Russell County, Virginia, public school scheduling. The problem statement, research goals, and background and significance of the study were also provided. In addition, limitations, assumptions and procedures were established. Finally, the reader was supplied with definitions of terms that will be important to understand this study.

A review of literature will be provided in Chapter II and Chapter III will provide the methods and procedures used to collect the research data. Findings will be provided in Chapter IV and Chapter V will include the summary, conclusions and recommendations.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter was to review literature related to the goals of the research study regarding which scheduling method would lead to improved student scores on the Standards of Learning Assessment in high schools in Russell County. Included within this chapter are sections on the Carnegie Structure, Block Scheduling, Attendance and Summary.

Carnegie Structure

The Carnegie structure that is used today in most high schools has students attending 6 to 7 periods of classes for approximately 50 minutes for an entire school year. In their high school career, students will attend 24 to 28 classes. In block scheduling students attend four classes for approximately 90 minutes for half a school year or 90 days. At the end of the semester the students would be required to take end of course exams and Standard of Learning Assessments. This type of schedule allows the student to attend approximately 32 courses during their high school career.

The advantages of a seven period a day schedule makes it easier on transfer students. It is easier on them to just "pick up" where they left off. A student coming in from a seven period a day schedule to a block schedule is harder for them to adjust and more than likely they will be behind. The

advantage of the seven period schedule is the fact that it is a tradition and veteran teachers are more comfortable or better acclimated to the traditional schedule. They have been teaching this way and they feel these lessons and instructional activities will not need adjusted.

A disadvantage to the seven period schedule is that the new state requirements are so complex that they require more time than the seven period day, 55 minute course would allow to teach the associated content. The new State's graduation requirements give students fewer opportunities to attend elective courses because they are concentrating more on the state's competency requirements. Another disadvantage is the stress on students because they have more teachers, tests, quizzes and homework. With the Carnegie schedule, discipline is a problem because students are in the halls more often changing classes.

Block Scheduling

The advantages of block scheduling are more preparation time for teachers, fewer students in their classes, and a reduced load of classes taught during a semester. Block scheduling allows less time for students to be stressed because they have fewer classes, and it allows them to achieve a higher level of cognitive thinking since they are focused on fewer classes.

In block scheduling, if a student fails a course, then the student can take the course the following semester and still graduate with his/her peers.

According to Rettig and Canady (1996), block scheduling has many advantages for teacher's to benefit because the schedule offers them more preparation time and less loss of time with class openings and closings. They are able to plan lessons for extended periods of time and are motivated to use different methods for delivering content. In Table 1 and Table 2 are examples of block schedules.

Table 1

A/B BLOCK SCHEDULING Seven Course A/B Block Schedule Daily Period Resource Class		
	Day 1	Day 2
Block I 8:00-9:40	Course 1	Course 2
Block II 9:45-11:255	Course 3	Course 4
11:30-12:20 p.m.	Lunch A or Course 5 (Resource)	
12:25-1:15 p.m.	Lunch B or Course 5 (Resource)	
Block III 1:20 – 3:30 p.m.	Course 7	Course 6

(Santos and Rettig, 1999)

The major disadvantage to block scheduling is on the students who transfer from a high school that is still using the Carengie schedule. These

students are lost because they have not covered the materials the other students have and they have to choose the four classes they will now attend. Another disadvantage is found in music/band classes where the students have to sing or play an instrument longer. They find it extremely hard to carry an instrument or sing for the 90-minute class period. However, the music teacher or band director finds the advantages are longer rehearsal time, being able to expose the students to different composers, theory and expression (Flinders, 2000).

Table 2

4/4 SEMESTER BLOCK SCHEDULE Full –Year Resource Class		
	Semester 1	Semester 2
Block I 8:00-9:30 a.m.	Required Course 1	Required Course 3
Block II 9:34-11:00 a.m.	Required Course 2	Required Course 4
11:04-11:30a.m.	Lunch A (Resource)	Study/Activity B
11:34-12:00 p.m.	Study/Activity A (Resource)	Lunch B
Block III 12:04-1:30 p.m.	Elective Course 1	Elective Course 2
Block IV 1:34-3:00 p.m.	Resource Class or Resource Class & Required Course 5 (e.g., Special Education, English)	

(Santos and Rettig, 1999)

According to Shortt and Thayer (1997), the first year of block scheduling is demanding on teachers. The teachers will have to adjust to teaching more material in one day. Careful planning and teaching the

important content according to their curriculum standards will help as well as the support from other teachers in their departments. Teachers will find that they have not covered the material in the block scheduling like they did in the traditional Carnegie schedule mainly because they were not prepared! These teachers will find it harder to adjust to the block scheduling if they do not learn how to plan and pace themselves better. Another issue that was brought out by Shortt and Thayer was the concerns of sequencing courses to maximize the students' opportunity to succeed in several subjects. The main concern with teachers was in the areas of Foreign Languages. These courses must be taught in back to back sequences so the student will remember from level one to level two. Teachers will have to learn to vary instructional methods and deliveries. The advantage of block scheduling in the area of Foreign Languages was being able to take levels three and four.

The major disadvantage to block scheduling to administrators is the assessment schedule. This is mainly because the assessments are scheduled before all the content of the course is covered or the assessment is not given but once a year. When the assessments are given only once a year the students must be given time to review the classes that they previously had (Shortt, 1997).

Attendance

Creating a clean environment is every high school principal's dream. The hard part of their job is to produce a climate that is conducive to teaching and learning. How to reduce the discipline problems that arise everyday or the attendance problems, not to mention the tardies, is a difficult task. Also important is the morale of the teachers, staff and students, and having the support from the parents or guardians. Block scheduling offers the opportunity to limit disruptions, increase attendance and lift the morale of the school.

Discipline problems arise from teenagers being released into narrow halls; missing a day is like missing two days of school with the block method. According to some administrators, new policies are needed to minimize absences because of the daily concentration of subject matter (Rettig, 1996). In these narrow halls students are disruptive going to lockers and bathrooms from unorganized structure. Also, in the Carnegie schedule the students have six to eight different teachers to adjust to their teaching style and their discipline rules. It is no wonder there are so many discipline problems! Block scheduling reduces the amount of hallway time to four times a day. This will reduce the discipline problems. Also being reduced is the amount of different teaching styles because the students are reducing the

amount of teachers they have to almost half. This also allows teachers to increase the amount of material covered each day. Since so much more material is covered, missing a day is like missing two days of school with the block method. According to some administrators, new policies are needed to minimize absences because of the daily concentration of subject matter (Rettig, 1996).

Summary

Chapter II, Review of Literature, presented the advantages and disadvantages of the Carnegie schedule and the Block schedule. Also included in this chapter were issues of teaching concern, discipline, and attendance. Although there are several types of block scheduling, finding the one that is right for Russell County High Schools is yet to be determined or if it would be best to switch from the traditional setting. Chapter III provides methods and procedures used to evaluate the neighboring counties' Standard of Learning Assessment scores who use block scheduling as compared with the Carnegie schedule.

CHAPTER III

METHODS AND PROCEDURES

Chapter III, Methods and Procedures, established the procedures used to compare Standard of Learning Assessments in block scheduling to the traditional seven period schedule. This chapter will discuss and define the populations' chosen for this study, instrument design, procedures for collecting data, and the statistical analysis method used.

Population

The population used for this study was administrators in Buchanan and Carroll Counties and Norton City Schools who use block scheduling and Russell and Tazewell Counties who use the seven period day scheduling. All high school principals were spoken with concerning their views on both schedules. The total number of high schools surveyed was fourteen.

Instrument Design

The instrument used to determine and compare the effectiveness of the Standards of Learning Assessment was the Standards of Learning Scores of high schools in Buchanan, Russell, Tazewell, and Carroll Counties as well as in Norton City Schools. A survey was developed to obtain specific information about the scheduling methods. The survey questions were worded carefully so as nonbiased data would be collected. The questions

were read to the administrators by phone or in person. A copy of the questions is located in Appendix A.

Standards of Learning Assessment scores were collected from each participating counties. Analysis will be used to determine any significant performance of students using the two scheduling methods, by using the Statistical Formula, Chi-Square. The instrument will analyze the percentage of high school students passing the Standards of Learning Assessment in all content areas and the percentages of difference will reflect which scheduling method shows a greater performance.

Data Collection

The researcher called each school board to obtain the Standards of Learning scores, in all content areas of high schools. The participants were Buchanan, Russell, Tazewell, and Carroll Counties and Norton City Schools. A copy of the Standard of Learning Scores will be located in Appendix B.

Statistical Analysis

The Standards of Learning Assessment Scores will be compared and analyzed using the statistical method of Chi-Square. The results will be used to determine if counties using block scheduling scores showed a significant difference over seven period scheduling.

Summary

The participants in this study were the Counties of Buchanan, Russell, Tazewell and Carroll counties, and Norton City Schools. The instrument design, method of data collection and statistical analysis described in this chapter allowed the researcher to compile data that will be presented as findings in Chapter IV.

CHAPTER IV

FINDINGS

This study was conducted to determine if block scheduling or seven period scheduling has an effect on The Standards of Learning Assessment scores at the high school level. This chapter contains the findings of each Standard of Learning assessment given to high school students based on this scheduling method, either block scheduling or seven period scheduling. The chapter further contains findings from school administrators who utilize block scheduling or seven period scheduling in their schools. Findings are presented in narrative form from school administrators. The administrators were contacted by phone or in person by the researcher.

Comparison of Scores

The research included a total of fourteen high schools, seven that use block scheduling and seven who use seven period scheduling to compare and analyze student performance on the Standards of Learning. A total of twelve Standards of Learning tests are given to high school students as an End of Course assessment. High schools must have at least 70% of the students passing on the Standard of Learning assessment in all areas to be fully accredited. The areas being assessed are Writing, English (Reading, Literature, Research), Algebra I, Geometry, Algebra II, United States

History, Geography, Earth Science, Biology, and Chemistry. World History to 1000 A.D. and World History from 1000 A.D. can be optional assessments.

The End of Course assessment in Writing in block scheduling showed 462 of the students out of 700 passing the test, whereas in the seven period scheduling 574 out of 700 students passed the test. Using the Statistical formula of Chi-Square, the researcher found x^2 to equal 6.65 using the 2.710 at the .05 level of significant and the 5.410 at the .01 level of significant. This showed a significant correlation between block scheduling and seven period scheduling in the writing assessment area. The seven period scheduling method did significantly affect the students' performance on the Standards of Learning in the area of Writing.

English block scheduling had a 391 of the students out of 700 passing the test, where a similar number of 529 students passed out of 700 in seven period scheduling. Using Chi-Square, x^2 was found to equal 9.6. The critical value of .05 is 2.710 which indicates a significant difference was found between the two scheduling methods. The seven period scheduling method did significantly affect the student's performance on the Standards of Learning in the area of English.

Algebra I had 344 students passing out of 700 with block scheduling and 368 students passed out of 700 with seven period scheduling. No significant difference was found in this area since the x^2 was found to be .32. The critical value of .05 is 2.710, therefore we concluded that there is not a significant difference between the two scheduling methods. In Algebra II block scheduling had 250 of the students passing out of 700 and seven period had 340 students out of 700 passing the Standards of Learning Assessment. Using the statistical formula of Chi-square, x^2 was .95, the critical value of .05 was 2.710. Therefore it is concluded that there is not a significant difference between the two scheduling methods. The last area in mathematics tested was Geometry; 188 students out of 400 passed in block scheduling, whereas 395 students passed out of 700 in seven period scheduling. Again using the Chi-square formula, x^2 was found to be .95. Using the .05 level of significance, the 2.710 found indicates no significant difference. The scheduling method did not have a significant effect on the student's performance on the Standards of Learning in any of the areas of Mathematics.

In the area of history, the only three areas tested are History, United States History and Geography. World History to 1000 A.D. and World History from 1000A.D. are optional tests. Students take these areas if they

want a more advanced diploma for graduation. The scores in United States History showed block students having 149 students out of 700 passing the Standards of Learning Assessment and 197 students passing who are under the seven period scheduling. Using the statistical formula for Chi-Square, x^2 was calculated to be 1.32. The critical value of .050 was 2.710, therefore it was concluded no significant difference existed between student performances on the Standards of Learning test for block or seven period scheduling. Geography had 376 students passing out of 600 in block scheduling and 366 students out of 600 passing in seven period scheduling. The value of x^2 calculated was .055. The critical value of Chi-Square at the .05 level was 2.710. Therefore it was concluded no significant difference was measured in either United States History or Geography.

The other two Histories were World History to 1000 and World History from 1000 A.D. This was an optional test. In World History to 1000 A.D. only one of the seven schools using block scheduling took the test. They had 38 students out of 100 passing the Standards of Learning Assessment. The students using the seven period schedule had 424 students passing out 700 passing. All seven high schools were administered this test.

After using the Chi-square formula, the researcher found x^2 to be a value of 1.32. The critical value of .05 was 2.710, which indicates no significant difference between the scheduling methods.

In World History from 1000 A.D., five of the seven block schools administered the test and had 214 out of 500 passing the Standards of Learning Assessment. Seven period scheduling showed 201 of the 300 students passing this area of the Standards of Learning Assessment. Using the statistical formula Chi-square, x^2 was calculated to be 1.163, with a critical value of 2.710 at .05 level of significance. Again, it was determined that no significant difference was observed in the areas of History, therefore the researcher concludes that neither of the scheduling methods has an effect on student performance in the areas of History.

The last courses to administer the Standards of Learning are in the areas of Science. The first area is Earth Science. Students taking this course in block scheduling had 373 students passing out of 700. Seven period schedules had 500 students passing out of 700. When scores were used in the Chi-square formula, x^2 was 27.80 and the critical value of .05 was 2.710, which indicates a significant difference was observed. Seven period scheduling had a better percentage of high schools passing. The next science area to be tested was Biology. Block scheduling showed 321

students passing out of 700, whereas 563 students out of 700 passed who used the seven period scheduling. Again a significant difference was observed using seven period scheduling. A x^2 value was found to be 15.72 with the critical value of .05 being 2.710. It can be concluded that there is a significant difference in the scheduling methods. Seven period scheduling showed more students passing.

The last area in science tested was in Chemistry. Block scheduling had 222 students passing out of 700, whereas seven period scheduling had 518 students passing out of 700. Again a significant difference was found. A x^2 value was found to be 27.72 with the critical value at .05 was 2.710, showing that seven period scheduling had a better percentage of students passing. The seven period scheduling method had a greater effect on student performance on the Standards of Learning Assessments in the Science areas than Block Scheduling.

Administrative Response

The researcher was able to contact ten of the fourteen administrators by phone or in person. The researcher made several attempts to contact the other four administrators with no success. Five of the seven administrators contacted were using block scheduling. All five stated the same about block scheduling. They all stated that block scheduling was better for the teacher

because it gave them more planning time, less students and more time to departmentalize. The students benefited from block scheduling because they were able to acquire more credits toward graduation, have fewer classes to prepare for each semester and if they were to fail a course or if they fail the S.O.L., they could take if over the next semester instead of waiting an entire year.

All administrators stated that student attendance had risen and discipline problems were significantly lowered, because the students have fewer opportunities to be in the halls unattended. Block scheduling also allowed principals and mentor teachers to work with teachers who were not performing up to standards. Another advantage to block scheduling was the fact that not as many textbooks were required to be purchased. The disadvantage noted by administrators was with transfer students and students going on field trips. The transfer students may be coming from a seven period scheduling and not have covered all material needed to pass the S.O.L assessment. The researcher asked the administrators to comment on the Standard of Learning Scores in the Science areas. Their response was the quality of teachers or the fact that the performance level of the students taking the courses at the present time varies.

The researcher was only able to contact five of the seven, seven period day administrators. Two of the administrators did not respond. The research found that they were totally content keeping the seven period day schedule. When asked why not make the change to block scheduling they all stated that it was too complicated to change. Most of the high school teachers were veterans and were reluctant to change from the status quo.

The researcher contacted the Division Superintendent of Russell County. The superintendent stated that Russell County reviewed material on Block Scheduling and visited several neighboring counties who changed to block scheduling. All teachers were then allowed to vote on whether to change to block scheduling or to keep the seven period day scheduling. The votes were almost unanimous to keep the seven period scheduling. The researcher asked what was the reasoning of the teachers; the response was the S.O.L. scores were going up so why make a change until a change is needed!

Summary

The findings of the Standards of Learning Scores between block scheduling and seven period scheduling showed a significant difference except in the areas of Algebra I, Algebra II, Geometry, History and

Geography. The level of significance was determined in all End of Course Exams by using the statistical formula, Chi-square.

Administrators were also contacted to answer questions the researcher had on the advantages of block scheduling and seven period scheduling. The findings were that block schedule administrators favored block scheduling and seven period administrators were not willing to make a change at the present time.

In Chapter V of this study the research will be summarized. A conclusion form the data collection will be drawn. Finally, recommendations will be made.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter was to report the summary, conclusions, and recommendations of this study. This information was based on the results of the research data obtained by comparing the Standard of Learning Assessments given in block scheduling and seven period scheduling. Further information was obtained by contacting administrators either by person or by telephone to obtain further knowledge of block scheduling and seven period scheduling and how it works in the surrounding areas of Russell County.

Summary

The problem of this study was to determine which scheduling method would lead to improved student scores on the Standards of Learning Assessment in high schools in Russell County.

The goals of this study were to answer the following questions:

1. What are the advantages and disadvantages of seven period day scheduling on Standards of Learning Scores?
2. What are the advantages and disadvantages of block scheduling on Standards of Learning Scores?

3. What impacts does block scheduling have on Math, Science, English and History Standards of Learning Scores?
4. What impacts does attendance have on block scheduling versus seven period day scheduling?
5. What scheduling method is recommended for Russell County to seek to improve its student scores on the Standards of Learning tests?

Findings from the data were presented in narrative format. Based on statistical analysis of the data, conclusions were drawn and recommendations were made.

Conclusions

The following conclusions were drawn from this research:

1. What are the advantages and disadvantages of seven period day scheduling on Standards of Learning Scores?

The advantage of seven period scheduling is it has a better percentage passing rate in the areas of History, Writing, English, Earth Science, Biology and Chemistry. The disadvantage is in the area of discipline and attendance.

2. What are the advantages and disadvantages of block scheduling on the Standards of Learning Scores?

The advantages of block scheduling on Standards of Learning Scores is that teachers have more time to prepare lessons and more class time to prepare the students academically for the Standards of Learning Assessment. Another advantage is for students is that they will be able to retake the course and the Standard of Learning test the following semester instead of having to wait an entire year. The disadvantage, according to administrators, is with the smaller schools when students go on field trips that they end up missing an entire class and the teachers does not go forward with the assignment. Consequently, teachers end up not covering all the required lessons needed for students to pass the Standards of Learning tests.

A change to block scheduling does reduce disciplinary problems in schools. The overall response by block administrators was moving to block scheduling has cut down the amount of discipline because the students have fewer opportunities to be in the halls unattended. The response by seven period administrators was that we would have the same discipline problems no matter what scheduling method we were to adopt.

3. What impacts does block scheduling have on Math, Science, English and History Standards of Learning Scores?

The researcher found that block scheduling does not have any significant impact on Algebra I, Algebra II, Geometry, Geography or History scores. In fact block scheduling had fewer students to pass in the areas of Science and English. This was a significant difference using the statistics of Chi-square.

4. What impacts does attendance have on block scheduling versus seven period day scheduling?

The impact on attendance is shown in block scheduling. Administrators stated that absences have dropped considerably since going to the block schedule. Students who missed a day ended up missing a weeks worth of lecturing, whereas, if they missed a day in the seven-day period schedule they only ended up missing the one-day.

5. What scheduling method is recommended for Russell County to seek to improve its student's scores on the Standards of Learning Tests?

The findings of this study indicate that students' performance on the State Standards of Learning were higher using the seven-period day schedule than the schools using the block scheduling method. Therefore, the researcher recommends Russell County continue to use the seven-period

Recommendations

Several recommendations to Russell County Schools can be made based on the data from this study and the responses from administrators who participated in this study. It is recommended that Russell County High Schools should keep the seven period scheduling. Further studies will be needed to determine if changing to block scheduling would be beneficial. Russell County administrators need to monitor students' performance on the Standards of Learning Scores in surrounding counties who are implementing block scheduling to see if a significant difference in occurring.

Since Russell County does not have a school operating on block scheduling, it is recommended that one school implement block scheduling to determine if a difference is occurring in the Standard of Learning Scores. The administrators will be able to use these findings to determine which method is better. It is further recommended that administrators look at the areas that students did not perform up to the State's performance level, and then examine the teachers and their instructional teaching practices. In doing this it might uncover weaknesses that can be improved to help students meet the state's performance levels.

Questions Asked to Administrators

The following questions were asked to block scheduling administrators. These questions were also asked to seven period administrators after they had viewed material and visited neighboring counties who are implementing block scheduling.

1. What are the advantages of block scheduling?
2. What are the disadvantages of block scheduling?
3. How do students benefit from block scheduling?
4. Has block scheduling helped raise student attendance?
5. Can you comment on seven period scheduling showing a higher student passing rate on the Standards of Learning assessment?
6. Why did the teachers in your school vote down block scheduling?

APPENDEX B

STANDARD OF LEARNING
TEST RESULTS

Division Name:	CARROLL
School Name:	CARROLL COUNTY HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	65.9574	75.0000	86.1111
End of Course English (Reading / Literature / Research)	67.6259	57.6923	76.8519
End of Course Algebra I	1.7857	18.6916	15.8730
End of Course Geometry	11.7647	32.8125	45.2555
End of Course Algebra II	4.2017	10.4167	24.1379
End of Course U.S. History	14.0127	16.1290	35.2000
End of Course Geography	N/A	N/A	70.0000
End of Course Earth Science	0.0000	0.0000	0.0000
End of Course Biology	59.1463	59.3750	65.5738
End of Course Chemistry	30.9091	58.7838	49.2188

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	BUCHANAN
School Name:	COUNCILL HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	38.4615	50.0000	60.0000
End of Course English (Reading / Literature / Research)	53.8462	50.0000	61.5385
End of Course Algebra I	19.1489	51.1111	52.3810
End of Course Geometry	N/A	31.2500	27.2727
End of Course Algebra II	10.5263	81.8182	95.0000
End of Course U.S. History	14.2857	0.0000	27.2727
End of Course World History from 1000 AD	23.2558	8.3333	43.7500
End of Course Geography	N/A	N/A	66.6667
End of Course Earth Science	62.5000	51.0638	51.2821
End of Course Biology	69.5652	N/A	N/A
End of Course Chemistry	N/A	N/A	40.0000

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	BUCHANAN
School Name:	GARDEN HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	64.0000	64.0000	64.5161
Grade 8 English (Reading / Literature / Research)	68.6275	65.3061	70.9677
Grade 8 Mathematics	52.0000	61.2245	54.8387
Grade 8 History	36.0000	36.7347	41.9355
Grade 8 Science	80.7692	73.4694	87.0968
Grade 8 Computer Technology	62.5000	79.5918	76.6667
End of Course Writing	N/A	64.7059	68.7500
End of Course English (Reading / Literature / Research)	N/A	62.5000	56.2500
End of Course Algebra I	54.5455	70.8333	77.7778
End of Course Geometry	N/A	71.4286	64.7059
End of Course Algebra II	3.3333	60.8696	N/A
End of Course U.S. History	3.2258	0.0000	10.0000
End of Course World History from 1000 AD	26.4706	24.3243	66.6667
End of Course Geography	N/A	N/A	70.0000
End of Course Earth Science	70.8333	80.7692	40.0000
End of Course Biology	69.4444	75.0000	63.1579
End of Course Chemistry	50.0000	N/A	50.0000

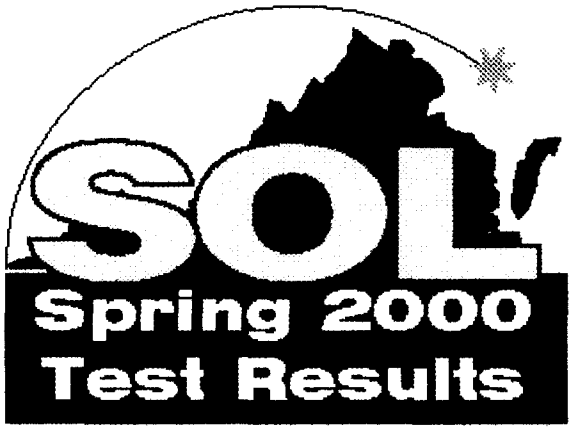
* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	BUCHANAN
School Name:	GRUNDY SENIOR HIGH
Low Grade:	7
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	67.1233	57.5000	89.5522
End of Course English (Reading / Literature / Research)	74.2857	43.3735	70.5882
End of Course Algebra I	12.3077	42.6230	51.9084
End of Course Geometry	6.3830	7.6923	N/A
End of Course Algebra II	3.4483	31.6456	41.3333
End of Course U.S. History	3.8961	2.9851	9.5238
End of Course World History to 1000 AD	N/A	0.0000	N/A
End of Course World History from 1000 AD	2.8571	N/A	23.1579
End of Course Geography	N/A	N/A	52.1739
End of Course Earth Science	42.8571	46.5909	64.5161
End of Course Biology	68.9320	51.2821	69.6970
End of Course Chemistry	N/A	43.4783	N/A

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.



Division Name:	BUCHANAN
School Name:	HURLEY HIGH
Low Grade:	
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	57.1429	60.6061	59.2593
End of Course English (Reading / Literature / Research)	56.0000	55.8824	46.6667
End of Course Algebra I	24.4444	30.7692	36.0000
End of Course Geometry	0.0000	18.7500	0.0000
End of Course Algebra II	0.0000	0.0000	46.1538
End of Course U.S. History	6.8966	24.1379	12.5000
End of Course World History to 1000 AD	N/A	42.8571	37.5000
End of Course World History from 1000 AD	7.1429	21.7949	20.6897
End of Course Earth Science	29.7297	47.2222	33.3333
End of Course Biology	90.4762	28.5714	28.5714
End of Course Chemistry	N/A	N/A	40.0000

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	BUCHANAN
School Name:	WHITEWOOD HIGH
Low Grade:	
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	53.3333	43.4783	51.5152
Grade 8 English (Reading / Literature / Research)	53.5714	57.6923	67.6471
Grade 8 Mathematics	3.7037	46.1538	23.5294
Grade 8 History	13.7931	13.6364	12.5000
Grade 8 Science	58.6207	66.6667	74.1935
Grade 8 Computer Technology	48.2759	70.8333	58.0645
End of Course Writing	26.6667	35.2941	16.6667
End of Course English (Reading / Literature / Research)	26.6667	47.0588	0.0000
End of Course Algebra I	23.0769	36.3636	18.5185
End of Course Algebra II	0.0000	0.0000	14.2857
End of Course U.S. History	0.0000	7.4074	14.2857
End of Course World History from 1000 AD	40.0000	10.0000	N/A
End of Course Geography	N/A	N/A	28.5714
End of Course Earth Science	73.9130	60.0000	33.3333
End of Course Biology	33.3333	46.1538	44.4444
End of Course Chemistry	N/A	N/A	6.2500

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	NORTON CITY
School Name:	J. J. BURTON HIGH
Low Grade:	8
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	64.7887	74.6032	50.0000
Grade 8 English (Reading / Literature / Research)	51.4286	53.2258	44.8276
Grade 8 Mathematics	34.2857	43.5484	47.1698
Grade 8 History	10.1449	22.9508	N/A
Grade 8 Science	51.4706	67.7419	47.8261
Grade 8 Computer Technology	55.8824	61.2903	52.3810
End of Course Writing	67.2131	80.0000	82.1429
End of Course English (Reading / Literature / Research)	57.6271	71.4286	80.0000
End of Course Algebra I	31.8182	68.8889	91.3043
End of Course Geometry	60.0000	52.5641	50.0000
End of Course Algebra II	10.2564	50.0000	28.5714
End of Course U.S. History	16.4179	27.2727	40.0000
End of Course World History to 1000 AD	36.8421	69.2308	N/A
End of Course World History from 1000 AD	31.5789	56.0000	60.0000
End of Course Geography	N/A	N/A	88.8889
End of Course Earth Science	58.9041	63.2353	64.4444
End of Course Biology	69.4915	76.4706	50.0000
End of Course Chemistry	47.0588	68.7500	36.3636

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	RUSSELL
School Name:	CASTLEWOOD HIGH
Low Grade:	8
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	63.6364	60.2410	49.3506
Grade 8 English (Reading / Literature / Research)	53.8462	54.6512	67.1233
Grade 8 Mathematics	39.7436	37.9310	48.0000
Grade 8 History	29.4872	30.2326	N/A
Grade 8 Science	59.7403	66.6667	75.0000
Grade 8 Computer Technology	46.1538	63.8554	78.0822
End of Course Writing	60.9375	68.3544	84.4156
End of Course English (Reading / Literature / Research)	78.4615	60.4938	72.8395
End of Course Algebra I	36.6667	35.4839	73.2143
End of Course Geometry	50.0000	82.8571	82.9268
End of Course Algebra II	2.5000	10.0000	30.0000
End of Course U.S. History	16.2162	8.6957	15.8537
End of Course World History to 1000 AD	N/A	51.5152	64.7059
End of Course World History from 1000 AD	N/A	N/A	83.3333
End of Course Geography	N/A	N/A	59.4595
End of Course Earth Science	59.0909	71.2329	82.6667
End of Course Biology	65.9341	74.4444	83.8710
End of Course Chemistry	93.3333	94.1176	100.0000

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	RUSSELL
School Name:	HONAKER HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	58.6538	43.3962	57.6471
Grade 8 English (Reading / Literature / Research)	49.0566	57.4074	63.0952
Grade 8 Mathematics	23.8095	28.7037	38.8235
Grade 8 History	24.5283	15.8879	N/A
Grade 8 Science	59.0476	67.2897	69.8795
Grade 8 Computer Technology	41.9048	48.5981	76.5432
End of Course Writing	58.2524	72.8000	77.7778
End of Course English (Reading / Literature / Research)	62.2642	64.5669	72.8972
End of Course Algebra I	6.3830	25.6000	37.5000
End of Course Geometry	30.7692	28.0488	52.9412
End of Course Algebra II	3.6585	7.5472	24.6154
End of Course U.S. History	17.8218	17.3913	20.5882
End of Course World History to 1000 AD	N/A	44.6809	56.4356
End of Course World History from 1000 AD	N/A	N/A	62.7119
End of Course Geography	N/A	N/A	67.0588
End of Course Earth Science	54.0146	64.8649	72.6316
End of Course Biology	66.9173	71.6535	81.2500
End of Course Chemistry	36.0656	82.6087	52.3810

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	RUSSELL
School Name:	LEBANON HIGH
Low Grade:	8
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	75.4491	65.1007	73.2824
Grade 8 English (Reading / Literature / Research)	67.2727	65.0000	76.6917
Grade 8 Mathematics	52.0958	42.1384	63.9098
Grade 8 History	30.4878	26.9939	N/A
Grade 8 Science	78.7879	79.0850	83.7209
Grade 8 Computer Technology	70.4819	72.2581	85.3846
End of Course Writing	67.1329	71.6981	88.5714
End of Course English (Reading / Literature / Research)	72.4138	70.8609	86.1314
End of Course Algebra I	33.9286	77.2059	85.2459
End of Course Geometry	45.6790	53.3333	79.7619
End of Course Algebra II	17.1053	50.5882	72.6316
End of Course U.S. History	17.1053	23.4848	36.3636
End of Course World History to 1000 AD	N/A	60.9467	79.2453
End of Course World History from 1000 AD	N/A	N/A	55.1181
End of Course Geography	N/A	N/A	80.4511
End of Course Earth Science	60.6936	79.7688	77.5510
End of Course Biology	61.1511	80.6667	91.4063
End of Course Chemistry	71.1864	93.3333	97.4359

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	TAZEWELL
School Name:	GRAHAM HIGH
Low Grade:	
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	72.8477	74.8092	89.2562
End of Course English (Reading / Literature / Research)	77.2727	74.2424	82.9060
End of Course Algebra I	33.3333	50.3401	45.2381
End of Course Geometry	42.7184	57.6577	54.6296
End of Course Algebra II	29.8701	43.1818	53.5211
End of Course U.S. History	31.2925	40.1515	50.8197
End of Course World History to 1000 AD	62.6016	71.1297	74.2424
End of Course Geography	N/A	N/A	61.1111
End of Course Earth Science	75.1445	76.2500	86.3014
End of Course Biology	76.8116	81.8898	74.4681
End of Course Chemistry	72.5275	82.6087	72.2222

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.

Division Name:	LAZEWELL
School Name:	POCAHONTAS HIGH
Low Grade:	
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
Grade 8 Writing	40.0000	48.5714	67.5000
Grade 8 English (Reading / Literature / Research)	12.0000	34.2857	75.0000
Grade 8 Mathematics	11.5385	5.8824	11.4286
Grade 8 History	0.0000	13.6364	40.7407
Grade 8 Science	42.3077	57.1429	77.5000
Grade 8 Computer Technology	3.8462	51.4286	57.5000
End of Course Writing	57.1429	77.1429	76.4706
End of Course English (Reading / Literature / Research)	55.5556	55.8824	75.0000
End of Course Algebra I	0.0000	19.1489	18.7500
End of Course Geometry	38.2353	31.8182	32.3529
End of Course Algebra II	14.2857	2.6316	25.0000
End of Course U.S. History	16.2162	11.4286	9.0909
End of Course World History to 1000 AD	23.6842	28.3019	24.3243
End of Course Geography	N/A	N/A	41.0256
End of Course Earth Science	33.3333	51.5152	45.9459
End of Course Biology	63.6364	66.6667	73.0769
End of Course Chemistry	72.2222	66.6667	42.3077

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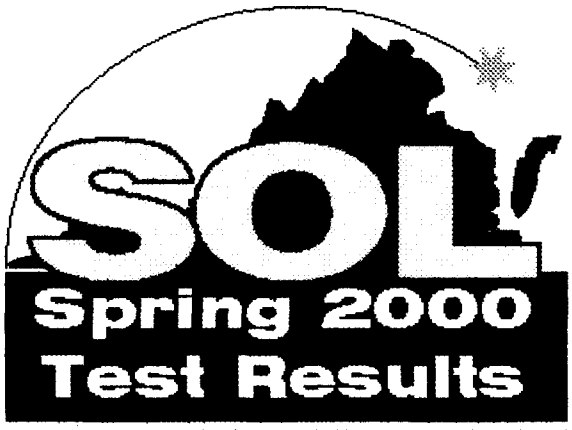
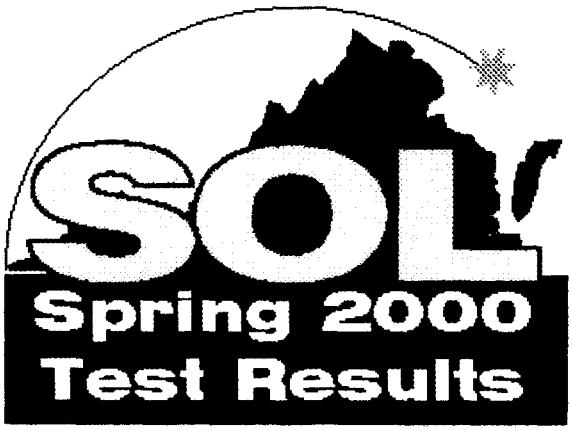


Division Name:	TAZEWELL
School Name:	RICHLANDS HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	61.0577	73.5849	77.8846
End of Course English (Reading / Literature / Research)	70.3518	64.6226	68.7179
End of Course Algebra I	12.8713	32.4607	54.0984
End of Course Geometry	27.9503	51.6129	53.0769
End of Course Algebra II	23.1884	40.2878	61.0687
End of Course U.S. History	21.4953	14.6667	32.5243
End of Course World History to 1000 AD	48.2014	51.4563	69.1892
End of Course Geography	N/A	N/A	57.1429
End of Course Earth Science	53.0201	68.6275	60.2804
End of Course Biology	74.3396	64.6853	85.7143
End of Course Chemistry	89.7436	90.0000	95.6522

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.



Division Name:	TAZEWELL
School Name:	TAZEWELL HIGH
Low Grade:	9
High Grade:	12

Virginia Standards of Learning Assessments
Percent of Students Passing by Test Taken

Subject Area	Percent Passing in Spring 1998	Percent Passing in Spring 1999	Percent Passing in Spring 2000
End of Course Writing	68.2081	83.1169	79.6296
End of Course English (Reading / Literature / Research)	78.1065	78.2051	70.8609
End of Course Algebra I	30.4598	26.6667	54.0146
End of Course Geometry	42.9688	47.1910	39.8810
End of Course Algebra II	26.1682	48.5981	73.1183
End of Course U.S. History	23.0303	28.3951	31.5476
End of Course World History to 1000 AD	63.9456	53.6458	55.5556
End of Course Earth Science	64.9194	67.2515	74.8634
End of Course Biology	62.5000	71.1111	73.2026
End of Course Chemistry	40.6977	84.4444	57.7778

* SPRING 1998 AND SPRING 1999 USE ADJUSTED FIGURES. SPRING 2000 USES UNADJUSTED FIGURES.