Relationship of Instructional Time Configuration on State-Mandated Middle Grades Social Studies Test Scores

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Abstract
This study compared the academic performance of students on the 2019 South Carolina Palmetto Assessment of State Standards (SCPASS) by the instructional time configuration used and explored the relationship among the variables of gender, race/ethnicity and poverty on this performance. Results of 25280 seventh-grade student social studies test scores from 112 middle schools, as well as information regarding each school’s instructional time configuration, were analyzed. While controlling for poverty, students in schools using instructional time configurations with the least amount of social studies class time per week had the highest performance levels. Additionally, White students scored significantly higher on the test than Mixed students, Mixed students scored significantly higher on the test than Hispanic students, and Hispanic students scored significantly higher on the test than Black students regardless of the instructional time configuration used.

Keywords: instructional time, middle level education, scheduling, social studies, testing

South Carolina’s Testing Program
It has become very difficult for many teachers and administrators to understand where the content area of social studies fits into the educational transparency and accountability world first created by the No Child Left Behind Act (NCLB, 2002) and continued with the Every Student Succeeds Act (ESSA, 2015). This national legislation, focused on student performance in reading/language arts and mathematics, fails to mandate standardized testing in social studies or include it in its school performance calculations. Due to this omission and subsequent increased focus on other “tested” subject areas, the legislation has had a dramatic impact on social studies instruction. In addition, the adoption of more stringent Common Core State Standards in many states has added even more pressure on teachers’ curricular decisions. These more rigorous standards have caused teachers to focus additional attention on implementing and
teaching the standards for English language arts (ELA) and literacy and for mathematics at the expense of other subject areas such as social studies (Alberti, 2013).

Past studies have shown the pressure on schools to perform well in the tested subjects of reading/ELA, mathematics, and science impacts both the schedule (i.e., time allocated to instruction) and the actual amount of time spent teaching social studies (Blaise, 2018; Bulger, 2012; Heafner, 2018; Holme, 2013; Houser et al., 2017; Journell, 2010; Kavanagh & Fisher-Ari, 2020; Lintner, 2006; Pace, 2012; Seymour & Garrison, 2016; VanFossen, 2005; Vogler & Burton, 2010; Vogler & Virtue, 2007). Lintner (2006) found in a study of kindergarten through fifth-grade social studies in South Carolina that “with such a tremendous emphasis being placed on reading, writing, and math, social studies has to fight for instructional time” (p. 3).

Bailey, Shaw, and Hollifield (2006) determined that the actual amount of instructional time spent on social studies in kindergarten through fifth-grade, self-contained classrooms in Title I schools in the state of Alabama confirmed the assault on social studies' instructional time reported by Lintner (2006). Bailey et al. (2006) also found not only was the instructional time spent on social studies reduced in Alabama’s elementary schools, but the amount of time actually spent on social studies on average was far less than the amount of time allocated by the school district and mandated by the state. In fact, there were weeks in some schools when social studies was not taught at all (Bailey et al., 2006). Also, by surveying more than 900 elementary-level and secondary-level principals across the United States, von Zastrow and Jane (2004) found that school administrators spent more time on and allocated more resources to instruction in reading and math than to social studies due to pressure to meet state and federal accountability mandates.

Before the national education accountability legislation, NCLB (2002), and its successor, the ESSA (2015), the state legislature passed the South Carolina Education Accountability Act in 1998 which enacted a review process for evaluating K–12 schools (South Carolina Department of Education, 2009). The primary instrument for measuring student progress according to this law was the Palmetto Achievement Challenge Test (PACT). In 1999, the PACT was first administered to students in Grades 3–8 and scores were categorized as Advanced, Proficient, Basic, or Below Basic. The tests first included only sections in mathematics and ELA, but in spring 2003 the assessment was expanded to include science and social studies. However, in spring 2007 the state cut back on its testing program and introduced the census testing of social studies and science in Grade 4 and 7; This meant that only students in Grade 4 and 7 would be required to take both the social studies and science tests. For students in Grades 3, 5, 6, and 8, they would take either the social studies or science test but not both.

In June 2008, the assessment system was renamed the Palmetto Assessment of State Standards (PASS). The only major difference between the PACT and the PASS was the categories used to report student scores. Whereas the PACT categorized student scores as Advanced, Proficient, Basic, or Below Basic, student scores on the PASS were to be reported as Exemplary, Met, or Not Met. Individual student scores on these tests would be used to help determine a ranking for the state’s School Report Card that rates schools as Excellent, Good, Average, Below Average, and Unsatisfactory (South Carolina Department of Education, 2009).

In 2014, the PASS was changed to the South Carolina Palmetto Assessment of State Standards (SCPASS). Although the SCPASS kept the same student score categories as the PASS, there was a decrease in the number of subject areas tested. Beginning with spring 2015, the SCPASS only included science and social studies tests; students were tested in ELA and mathematics using another assessment system. Additionally, beginning in 2018, there was a decrease in the grade levels tested—SCPASS assessments in science were only administered to all students in Grades 4, 6, and 8. Social studies assessments were only administered to all students in Grades 5 and 7 (South Carolina Department of Education, 2019).

In 2019, the social studies portion of the SCPASS consisted of 50 items for fifth grade and 60 items for seventh grade (South Carolina Department of Education, 2019). Each item was a 1-point, four-option, multiple-choice question aligned to the standards for that particular grade level (see Appendix A). In addition, the test contained six to 12 embedded field test items. These items were for test development purposes only and were not included in the calculation of student scores (South Carolina Department of Education, 2019).

**Modern Learning Theory**

A fundamental tenet of modern learning theory, that different or expanded learning goals require different
approaches to instruction, also suggests that expanded opportunities to learn may also be required (Bransford et al., 1999). Because prior knowledge forms the foundation needed to efficiently acquire new knowledge (Wanzek et al., 2019) and a student’s level of background knowledge can predict future academic achievement (Cromley & Azevedo, 2007; Taboada et al., 2009), the relevancy of allocating appropriate amounts of instructional time is particularly significant (Dochy et al., 1999).

It is possible that scheduling configurations may have the power to not only compromise a teacher’s ability to provide time to ensure their students have an in-depth coverage of a subject such as social studies, but also their ability to provide the type of quality of instruction necessary for their students to learn the material and relate it to their lived worlds. These types of relevant connections to the skills and to other areas of the curriculum are essential to prepare elementary and middle-level students for future studies at the secondary level (Abrams et al., 2003; Bloom, 1974; Carroll, 1963; Hirsch, 2006; Leming et al., 2006; National Education Commission on Time and Learning, 1994; Slavin, 1994; Steffes & Valentine, 1996; Walberg, 1988). This is especially true in the era of high-stakes testing when developmentally appropriate practices for students, particularly at the middle level, are incongruent with the standards-based summative accountability expectations of academic rigor within content-driven curriculum and instruction (Anfara & Waks, 2001). Therefore, the challenge for educators is how to allocate, organize, and employ instruction time so that curriculum content and pedagogy can be aligned in ways that are integrated, relevant, exploratory, and engaging, while simultaneously enabling students do well on standardized state-sanctioned tests (Bishop & Harrison, 2021; Thompson, 2000).

Scheduling Configurations

Most states have laws that define the minimum number of days per year and hours per day that students must attend school. The minimum amount of instructional time is specified; however, the way time is allocated is not prescribed and thus enables schools to have considerable flexibility in instructional time configurations based on prioritized instructional and non-instructional activities. Unfortunately, criticism of how instructional time is structured has a history spanning over 300 years (Zepeda & Mayers, 2006); the latest chapter of this disagreement has included publications such as A nation at risk: The imperative for education reform (National Commission on Excellence in Education, 1983), A Place Called School: Prospects for the Future (Goodlad, 1984), and Prisoners of time: Report of the National Education Commission on Time and Learning (National Education Commission on Time and Learning, 1994), all advocating for the restructuring of instructional time.

In response, an unprecedented wave of schools moved away from traditional schedules and adopted different configurations touted as a more beneficial way to maximize instructional time (Canady & Rettig, 1996). For example, in Texas, the number of high schools using block scheduling rose from 4% to over 40% in a four-year span between 1992 and 1995 (Texas Education Agency Office of Policy Planning and Research: Division of Research and Evaluation, 1999). Block scheduling was seen as an instrument to maximize instructional time by (1) reducing the number of students for whom teachers must prepare and with whom teachers interact each day and/or each term; (2) reducing the number of classes, assignments, tests, and projects that teachers must address during any single day of term; (3) reducing the fragmentation in traditional schedules, a complaint especially pertinent to classes requiring extensive practice and laboratory work; (4) providing teachers with lots of time that allow and encourage the use of active teaching strategies promoting greater student involvement; and (5) allowing students variable amounts of time for learning without lowering standards, and without punishing those who need more or less time to learn (Hottonstein, 1998).

Hackmann and Valentine (1998), in their article entitled Designing an Effective Middle Level Schedule, stated that “a well-designed schedule” is not only an important “mechanism to facilitate the school’s goals and purposes” but that it is the foundation for an exemplary middle school” (p. 1). Scheduling is a mechanism to bring resources together to optimize learning (Hackmann & Valentine, 1998). George and Alexander (1993) identified scheduling of time as an important element in creating effective instructional programs and report that “few schools can overcome the barriers of ineffective schedules or restrictive environments (p. 365). Effective schedules, according to George and Alexander (1993), are defined by their level of instructional responsiveness and ability to provide adequate periods of time to effectively implement
learning activities. Scheduling configurations, therefore, should be developed to support the learning of curricular content and be sufficient to ensure mastery of core academic subjects (Hackmann & Valentine, 1998). As was noted in the Carnegie Council on Adolescent Development (1989) report *Turning Points*, students need time to learn, especially when required to learn material in depth. When time is restricted and there is no opportunity to adjust the amount of time and size of groups based upon students’ needs, skills being learned, and the instructional strategy used, “many students will not master all the material” (p. 52).

Arranging the school day can be approached as just the establishment of arbitrary divisions of time or viewed as a function of allocating time to ensure appropriate opportunities to learn are created for all students. Although there is no definitive answer to the question of how time should be allocated, scheduling configurations used in middle-level schools have been identified and evaluated based upon their potential to create appropriate opportunities to learn (Kubitschek et al., 2005). The most commonly used scheduling models are the traditional, departmentalized schedule and the flexible schedule (Daniel, 2007).

**Traditional Schedules**

The traditional schedules are those with “a fixed number of daily periods of uniform length, with delivery of instruction strictly adhering to departmental classifications” (Hackmann & Valentine, 1998, p. 6). Traditional schedules generally contain from five to ten instructional periods, and by design, provide little support for interdisciplinary and child-centered instruction when compared to other scheduling formats (Hackmann & Valentine, 1998). In 1969, 76% of middle-level schools reported using a traditional schedule (Alexander et al., 1969). In 1993, the percentage of “period-by-period instruction departmentalized instruction” dropped although it was still used as the primary format for instruction with 94% of middle-level schools using either a six, seven, or eight period day with 45-minute instructional periods (Valentine et al., 2003). McEwin et al. (1996) reported that traditional schedules were used less than 50% of the time in seventh grade and roughly at 50% in eighth grade.

**Flexible Schedules**

Flexible scheduling is defined as the “creative use of the time in the school day in an attempt to match the instructional time and format to the learning needs of students” (Daniel, 2007, p. 1). Scheduling configurations included in this definition are block scheduling and alternative scheduling models. A flexible schedule is characterized by a shift from fixed-time instructional periods (e.g., 40–50 minutes) toward longer instructional periods (e.g., 75–150 minutes) that accommodate more diverse teaching and learning activities (Bevevino et al., 1999; Daniel, 2007).

Flexible scheduling options in middle-level schools provide the means to structure the school schedule to respond to the developmental needs of students and to customize learning environment (Canady & Rettig, 1995; Williamson, 1998). By incorporating the ability to schedule larger time blocks teachers have opportunities to integrate interdisciplinary activities and use strategies such as project-based learning that facilitate student engagement in the learning process (DeRouen, 1998; Seed, 1998). Not surprising is that research confirms that flexible scheduling models increase student engagement and achievement in middle-level schools and that they have a particularly positive impact on the estimated average performance scores of lower achieving students (Arhar & Irvin, 1995; Arhar, 1992; Lewis et al., 2003). Despite support for the model, the overall use of flexible schedules has declined since 1993 in the middle-level grades, with only eighth grade reporting an increase (McEwin et al., 2003).

Flexible scheduling configurations can assume many forms. Two models that have emerged as favorites are the block schedule and alternate day class schedule (known also as the A/B schedule) (Daniel, 2007).

**Block Schedule**

The block schedule model uses blocks of time created from combining instructional time allotted for a traditionally scheduled period (45-minutes) into two or more combined periods (Hackmann, 2002). Block schedules can include periods of all the same length (e.g., 90 minutes) or can adjust the length of time devoted to each time block according to the instructional needs of students (e.g., core academic subjects may be assigned longer blocks while electives are assigned shorter blocks). The length of time of a block can also vary from day to day and week to week. Common block schedules in middle schools use $4 \times 4$ (four-by-four) schedules where students take four classes for half a year and then four different classes the second half of the year (Daniel,
According to Daniel (2007), another common arrangement is to organize the blocks of time into two blocks in which to deliver instruction in the morning and afternoon (e.g., academic instruction block in morning and electives/advisory periods in the afternoon).

A/B Schedule

Flexible schedules can also be formatted using an alternating day schedule. The alternating day schedule creates a learning environment that gives students fewer classes and teachers to manage per day (Hackmann & Valentine, 1998). In this arrangement classes are assigned to meet on an every-other-day basis with even-numbered and odd-numbered class periods meeting on alternating days (Hackmann, 1995). Students attend one set of classes on certain days of the week and another set of classes on the remaining days. The rotation of days allows students to focus on a limited number of core subjects per day. There are various formats that modify this schedule to accommodate courses, such as foreign language or band, which require daily academic instruction. This scheduling arrangement allows students to “spend more time in integrated block classes” and gives teachers “flexibility to develop and teach classes” (Kenta, 1993, p. 19).

Statement of the Problem

The federally mandated NCLB and later ESSA legislation’s focus on reading/ELA and mathematics testing outcomes has forced administrators and teachers to allocate more instructional time to these content areas at the expense of other content areas. However, 28 states, including South Carolina, still include social studies as part of their accountability system and mandate scores in this content area to be included as part of a school’s review (Mullen & Woods, 2018). If students are expected to score within a particular range in the area of social studies on the state’s accountability test, in spite of the pressure and focus on reading/language arts and mathematics, it is easy to conclude that there needs to be a reexamination and investigation in the ways in which instructional time is allocated vis-à-vis scheduling configurations to teach these content areas.

Another problem has been the overall lack of research addressing the impact of state-mandated accountability at the middle level. The majority of research in this area has centered on the elementary experience (Bailey et al., 2006; Heafner, 2018; Lintner, 2006; O’Connor et al., 2007; Pederson, 2007; Savage, 2003; Tanner, 2008; Wills, 2007; Zamosky, 2008). Even when the middle school level was addressed within a study (Burroughs et al., 2005; Leming et al., 2006; von Zastrow & Jane, 2004), little or no emphasis was placed on either the calculation of time allocated to instruction of social studies or on the manner in which instructional time was scheduled in the middle level school throughout the school year.

Also, gender, race, and poverty have been well documented in the literature to significantly relate to student achievement (Alexander & Jang, 2020; Anderson, 1993; Clotfelter et al., 2009; Fryer & Levitt, 2004, 2006; Gill, 2011; Guo & Harris, 2000; Holman, 1995; Hull, 2017; Kohlhaas et al., 2010; Thomas & Stockton, 2003; Turner & Spain, 2020) and gaps in students’ academic performance among these variables begin to appear during the middle grades (Davis & Jordan, 1996; Ford & Harris, 1992; Ford, 1992; Mickelson & Greene, 2006). However, few studies focusing on the impact of social studies state-mandated accountability systems have addressed or accounted for these important variables regardless of student grade level.

Purpose of Study

The purpose of this study was to compare the social studies performance of middle grades students by the instructional time configuration used and examine the relationship among the variables of gender, race, and poverty on this performance. Specifically, this study was designed to identify how instructional time configuration affects scores on a state-mandated social studies test and how the variables gender, race, and poverty relate to this relationship.

Research Questions

The following are the study’s research questions:

1. How does instructional time configuration affect seventh-grade social studies test scores on a state-mandated test?
2. How does instructional time configuration impact seventh-grade students’ achievement on the social studies portion of a state-mandated test relative to gender and race/ethnicity?

We begin with a description of the study’s method followed by an examination of the results of the research questions and conclude with information.
about the study’s limitations, implications, and directions for future research.

**Method**

The data to answer the research questions were obtained through (a) an examination of 2019 seventh-grade student SCPASS social studies test scores from 112 middle level schools, (b) South Carolina Poverty Index data, and (c) information provided by the principals (or designates) of those 112 middle level schools regarding the instructional time configuration used.

**SCPASS and Poverty Index Data**

The South Carolina Department of Education (SCDOE) provided the lead author with a data set in response to a written request and signed Memorandum of Understanding. This data was in the form of a Microsoft Excel file which was then converted into a SPSS data set by the lead author. The SPSS data set contained the individual spring 2019 SCPASS social studies test result, including school, gender, and race/ethnicity of every seventh-grade student who took the test at each of the 112 participating middle level schools. The South Carolina Poverty Index data for 2019 was retrieved from the SCDOE’s data website archives. The Poverty Index data served as a covariate in this study—to control for poverty.

**Information Provided by Principals (Or Designates)**

Principals (or designates) of the 112 middle-level schools provided information, either by phone or e-mail, about the instructional time configuration used at their school. This, in combination with the SPSS data set, provided the necessary information to answer the research questions.

**Sample**

The target population for this study consisted of seventh-grade students attending traditional public middle-level schools (excluding charter schools and schools with multiple elementary and secondary grades) in South Carolina who took the SCPASS social studies test in spring 2019. There were 210 schools in 73 school districts that met these criteria; we acquired data from 112 schools representing 55 districts. The participating schools in this study are representative of the state in terms of percentage rural and urban and student characteristics of race/ethnicity, income, and past performance on state accountability assessments (South Carolina Department of Education, 2019). The total sample size for this study was 25280 students.

Table 1 displays descriptive statistics about the sample, including size, percentage, mean, and standard deviation of the variables instructional time configuration, gender, and race/ethnicity. In terms of instructional time, traditional 45–60 minute block all year (61%) and 61–79 minute block all year (23%) were the configurations most frequently used by the sample school population; hence, most widely used by the sample student population. These instructional time configurations were followed by 80–90 minute block all year (8.2%) and A/B 80–90 minute block all year (7%). Finally, one school used an unnamed “other” instructional time configuration (N = 200, % = .8). Regarding the independent variable gender, the sample population was made up of 51% males and 49% females. Among the different race/ethnicities of students, White (51.9%), Black (32%) comprised 83.9% of the total sample population. They were followed by Hispanic (10.1%), Mixed (4%), Asian (1.5%), American Native/Alaskan (.3%), and Pacific Islander (.1%).

**Results**

**Research Question 1**

Our first research question asked: How does instructional time configuration affect seventh-grade student social studies test scores on a state-mandated test? To answer this research question, an analysis of variance (ANOVA) was used to compare the variable instructional time configuration to the 2019 seventh-grade student SCPASS social studies test scores. This statistic was used because we compared one independent variable (instructional time configuration) with one scale-level dependent variable (2019 seventh-grade student SCPASS test scores). Results of the ANOVA showed there was a statistically significant association between

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1 The South Carolina Poverty Index is a calculation that ensures that student achievement among districts and schools across the state are being compared with districts and schools with similar student and demographic characteristics. The index is based on free and reduced-price lunch data and Medicaid eligibility data. It was developed in direct response to a mandate of the Code of Laws of South Carolina, Section 59-18-900(C) which required the state to set criteria for academic performance ratings and performance indicators and to establish guidelines for statistical analysis for data-reporting purposes.

2 Students in schools using the unnamed “Other” instructional time configuration were removed from further calculations because they made up only .8% of the total sample population.

3 Asian, American Native/Alaskan and Pacific Islander students were excluded from further calculations because they collectively comprised only 1.9% of the total sample population.
instructional time configuration and seventh-grade student SCPASS social studies test scores, $F (3, 25,076) = 54.34, p = .000$, partial $\eta^2 = .006$. The Levene’s test was used to check the assumption that the variances of the four instructional time configurations were equal. Results showed the Levene’s test was significant and therefore the assumption of equal variances was violated. Since the Levene’s test was significant, a Games-Howell post hoc test was used. Results of the Games-Howell post hoc test revealed there were significant mean differences ($p = .000$) between all the combinations of the four instructional time configurations with the exception of the difference between the traditional 45–60 minute block all year and the 61–79 minute block all year instructional time configurations ($p = .264$).

An analysis of covariance (ANCOVA) was then conducted on the interaction between instructional time configuration and 2019 seventh-grade student SCPASS social studies test scores, using a covariate, 2019 Poverty Index, to control for student poverty level. As shown in Table 2, the result of the ANCOVA showed a statistically significant interaction between seventh-grade SCPASS social studies test scores and instructional time configuration while controlling for poverty, $F (3, 25,072) = 16.26, p = .000$, partial $\eta^2 = .002$. In other

| Variable                                      | N     | %    | M    | SD   |
|----------------------------------------------|-------|------|------|------|
| Instructional Time Configuration             |       |      |      |      |
| Trad 45–60 min blk all year$^a$              | 15433 | 61.0 | 627.87 | 53.26 |
| 61–79 min blk all year$^b$                   | 5803  | 23.0 | 626.39 | 53.07 |
| 80–90 min blk all year$^c$                   | 2079  | 8.2  | 621.22 | 52.33 |
| A/B 80–90 min blk all year$^d$               | 1765  | 7.0  | 642.19 | 57.78 |
| Other$^e$                                     | 200   | 0.8  | 624.96 | 53.19 |
| Gender                                       |       |      |      |      |
| Male                                         | 12886 | 51.0 | 629.83 | 57.11 |
| Female                                       | 12394 | 49.0 | 626.34 | 49.76 |
| Race/Ethnicity                               |       |      |      |      |
| White                                        | 13128 | 51.9 | 642.27 | 54.27 |
| Black                                        | 8096  | 32.0 | 605.02 | 44.28 |
| Hispanic                                     | 2562  | 10.1 | 621.86 | 50.39 |
| Mixed                                        | 1012  | 4.0  | 629.46 | 50.95 |
| Asian                                        | 382   | 1.5  | 672.89 | 50.04 |
| American Native/Alaskan                      | 64    | 0.3  | 616.36 | 55.54 |
| Pacific Islander                             | 36    | 0.1  | 615.61 | 62.07 |

$^a$68 schools used this configuration.
$^b$24 schools used this configuration.
$^c$11 schools used this configuration.
$^d$8 schools used this configuration.
$^e$1 school used this configuration.

Table 1

Descriptive Statistics of Seventh-Grade Student SCPASS Social Studies Test Scores by Instructional Time Configuration, Gender, and Race/Ethnicity
words, after controlling for students’ poverty level, there was a significant difference among the four instructional time configurations and seventh-grade student SCPASS social studies test scores.

Table 3 presents the means and standard deviations of seventh-grade student SCPASS social studies test scores by instructional time configuration before and after controlling for poverty level. As depicted in Table 3, the A/B 80–90 minute block all-year instructional time configuration had the greatest seventh-grade student SCPASS social studies test score mean (642.19), before controlling for poverty, and had the greatest seventh-grade student SCPASS social studies test score mean after adjusting for students’ poverty level, but only at 628.93. This configuration was closely followed by the traditional 45–60 minute block all year at 628.68. The 61–79 minute block configuration (625.80) and 80–90 minute block configuration (624.83) had the third and fourth greatest social studies test score mean.

Research Question 2
Our second research question asked: How does instructional time configuration impact seventh-grade students’ achievement on the social studies portion of a state-mandated test relative to gender and race/ethnicity? We used an ANOVA again to answer this research question. However, for this research question, a three-way ANOVA was used to help understand the impact students’ gender and race/ethnicity, as well as the instructional time configuration used, had on seventh-grade student SCPASS social studies test scores. As presented in Table 4, the association among the variables instructional time configuration, gender, and race/ethnicity on seventh-grade student social studies SCPASS test results was not statistically significant, nor was the association between instructional time configuration and gender. However, there was a statistically significant association between instructional time configuration and race/ethnicity, $F(9, 24,566) = 1.31, p = .036$, partial eta$^2 = .001$. The Levene’s test was used to check the assumption that the variances of the four instructional time configurations and four race/ethnicities (White, Black, Hispanic, and Mixed) were equal. Results showed the Levene’s test was significant and, therefore, the assumption of equal variances was

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**Table 2**
Analysis of Covariance for Seventh-Grade Student SCPASS Social Studies Test Scores as a Function of Instructional Time Configuration, Using Poverty Level as a Covariate

| Source                  | df | MS       | F     | p   | Partiala$^2$ |
|-------------------------|----|----------|-------|-----|---------------|
| InstrTime               | 3  | 61234.03 | 23.72 | .000| .003          |
| Poverty                 | 1  | 4091646.67 | 1584.97 | .000| .039          |
| InstrTime*Poverty       | 3  | 41979.55 | 16.26 | .000| .002          |
| Error                   | 25072 | 2581.52    |       |     |               |

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**Table 3**
Adjusted and Unadjusted Means and Variability for Seventh-Grade Student SCPASS Social Studies Test Scores as a Function of Instructional Time Configuration, Using Poverty Level as a Covariate

|                           | Unadjusted |                     | Adjusted |          |          |
|---------------------------|------------|----------------------|----------|----------|----------|
|                           | N | % | M       | SD | M   | SE |
| Trad 45–60 min blk all year | 15433 | 61.5 | 627.87 | 53.26 | 628.68 | 0.41 |
| 61–79 min blk all year    | 5803 | 23.1 | 626.39 | 53.07 | 625.8  | 0.67 |
| 80–90 min blk all year    | 2079 | 8.3  | 621.22 | 52.33 | 624.83 | 1.14 |
| A/B 80–90 min blk all year| 1765 | 7.0  | 642.19 | 57.78 | 628.93 | 1.40 |
Table 4
Three-Way Analysis of Variance for Seventh-Grade Student SCPASS Social Studies Test Scores as a Function of Instructional Time Configuration, Gender, and Race/Ethnicity

| Source                          | df  | MS     | F    | p    | Partialeta² |
|---------------------------------|-----|--------|------|------|-------------|
| InstrTime                       | 3   | 10847.66 | 4.26 | 005  | 0.001       |
| Gender                          | 1   | 777.16  | 31   | 581  | 0.000       |
| Race/Ethnicity                  | 3   | 996457.02 | 391.03 | 000  | 0.046       |
| InstrTime*Gender                | 3   | 1207.17  | 48   | 701  | 0.000       |
| InstrTime*Race/Ethnicity        | 9   | 3341.37  | 1.31 | 036  | 0.001       |
| InstrTime*Gender*Race/Ethnicity | 9   | 5082.96  | 2.0  | 225  | 0.000       |
| Error                           | 24566 |        |      |      |             |

violated. Because the Levene’s test was significant, a Games-Howell post hoc test was used. Results of the Games-Howell post hoc test revealed there were significant mean differences ($p = .000$) between the combinations of the four instructional time configurations and White students, White and Black students, and Black and Hispanic students.

An ANCOVA was then used to analyze the interaction between instructional time configuration and ethnicity using The Poverty Index data as a covariate to control for student poverty level. As shown in Table 5, the result of the ANCOVA showed a statistically significant interaction between instructional time configuration and ethnicity, while controlling for poverty, $F (9, 24,566) = 7.26, p = .000$, partial $\eta^2 = .003$.

Table 6 presents the means and standard deviations of White, Black, Hispanic, and Mixed students on the seventh-grade student SCPASS social studies test before and after controlling for poverty level. White students scored significantly higher on the test than Mixed students, Mixed students scored significantly higher on the test than Hispanic students, and Hispanic students scored significantly higher on the test than Black students regardless of the instructional time configuration used. Also, after controlling for poverty level, there were only slight differences in the test results for White, Black, Hispanic, and Mixed students—with two exceptions: the mean test score for White students using an A/B 80–90 minute instructional time configuration dropped 16.05 points (from 650.48 to 634.43), and the mean test score for Black students using an 80–90 minute block configuration rose 11.76 points (from 598.79 to 610.55).

Table 5
Analysis of Covariance for Seventh-Grade Student SCPASS Social Studies Test Scores as a Function of Instructional Time Configuration and Race/Ethnicity, Using Poverty Level as a Covariate

| Source                          | df  | MS     | F    | p    | Partialeta² |
|---------------------------------|-----|--------|------|------|-------------|
| InstrTime                       | 3   | 5133.54 | 2.15 | 032  | 0.000       |
| Race/Ethnicity                  | 3   | 84160.47 | 35.21 | 000  | 0.004       |
| Poverty                         | 1   | 499659.18 | 209.02 | 000  | 0.008       |
| InstrTime*Race/Ethnicity*Poverty| 9   | 17359.50 | 7.26 | 000  | 0.003       |
| Error                           | 24566 |        |      |      |             |

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Table 6
Adjusted and Unadjusted Instructional Time Configuration Means and Variability by Race for Seventh-Grade Student SCPASS Social Studies Test Scores, Using Poverty Level as a Covariate

| Instr Time          | Unadjusted | | Adjusted | | | | Unadjusted | | | | Adjusted | | |
|---------------------|------------|---|----------|---|---|---|------------|---|---|---|------------|---|---|---|
|                     | White      | | Black    | | | | White      | | | | Black     | | | |
|                     | N  | M   | SD  | M   | SE | N  | M   | SD  | M   | SE | N  | M   | SD  | M   | SE |
| Trad 45-60 min blk all year | 8109 | 640.99 | 54.42 | 638.24 | .55 | 4909 | 605.93 | 43.58 | 609.26 | .76 |
| 61-79 min blk       | 2583 | 643.79 | 52.51 | 640.05 | 1.02 | 2119 | 604.25 | 45.30 | 606.67 | 1.14 |
| 80-90 min blk       | 1004 | 637.43 | 51.09 | 635.60 | 1.58 | 776  | 598.79 | 45.13 | 610.55 | 2.36 |
| A/B 80-90 min blk   | 1267 | 650.48 | 58.40 | 634.43 | 1.67 | 272  | 610.68 | 43.83 | 609.13 | 3.02 |

| Instr Time          | Hispanic | | Mixed    | | | | Hispanic | | | | Mixed    | | | |
|---------------------|----------|---|----------|---|---|---|----------|---|---|---|----------|---|---|---|
|                     | Unadjusted | | Adjusted | | | | Unadjusted | | | | Adjusted | | | |
|                     | N  | M   | SD  | M   | SE | | N  | M   | SD  | M   | SE | | N  | M   | SD  | M   | SE |
| Trad 45-60 min blk all year | 1532 | 621.43 | 49.91 | 622.47 | 1.26 | 576  | 628.66 | 50.78 | 627.99 | 2.04 |
| 61-79 min blk       | 707  | 621.39 | 50.38 | 621.72 | 1.84 | 276  | 630.50 | 51.30 | 626.68 | 3.01 |
| 80-90 min blk       | 193  | 622.39 | 51.77 | 624.87 | 3.63 | 68   | 626.81 | 52.77 | 627.10 | 5.94 |
| A/B 80-90 min blk   | 126  | 628.67 | 54.22 | 621.50 | 4.58 | 81   | 632.72 | 50.80 | 631.10 | 5.79 |
Discussion

Instructional Time and Achievement

How does instructional time configuration affect seventh-grade student social studies test scores on a state-mandated test? Results of an ANOVA comparing the sample’s four most frequently used instructional time configurations by the sample school population to the 2019 seventh-grade student SCPASS social studies test scores and an ANCOVA using the 2019 Poverty Index to control for student poverty level found a significant difference among the instructional time configurations and the seventh-grade student SCPASS social studies test scores. Students in schools using an A/B 80–90 minute block all-year or a traditional 45–60 minute block all-year schedule configuration achieved significantly higher seventh-grade student SCPASS social studies test scores than students in schools using either a 61–79 minute block all-year scheduling configuration or a 80–90 minute block all-year scheduling configuration. This finding refutes previous research concluding block-scheduled students perform better on standardized tests than traditionally scheduled students (Cobb et al., 1999; Evans et al., 2002; Hess et al., 1999; Mattox et al., 2005; Payne & Jordan, 1996; Queen et al., 1996) as well as studies that either conclude there are no significant differences in student performance with regard to the scheduling configuration used at the school (Duel, 1999; Lare et al., 2002; Snyder, 1997; Veal & Schreiber, 1999) or traditionally scheduled students outperform block-scheduled students (Arnold, 2002; Gruber & Onwuegbuzie, 2007; Knight et al., 1999; Lawrence & McPherson, 2000; Pisapia & Westfall, 1997).

This finding suggests that increasing the quantity of instruction time does not necessarily lead to higher state-mandated test scores. Both before and after controlling for student poverty level, the instructional time configurations with the greatest amount of class time per week (60–79 minute block all year and 80–90 minute block all year schedule) had the lowest student achievement performance levels while the instructional time configurations with the least amount of class time per week (A/B 80–90 minute block all-year and traditional 45–60 minute block all-year schedule) had the highest performance levels. While the research literature addressing the relationship of achievement and instructional time configuration impact is sparse with regard to middle-level social studies testing scenarios, the findings of this study support those of similar studies (Gainey & Brucato, 1999; Lewis, Cobb et al., 2003). This finding is consistent with studies suggesting longer and more frequent instructional periods fail to adequately support average attention spans and do not insure a greater retention of general knowledge in core areas (Gould, 2003; Gullatt, 2006). The finding also suggests that for social studies, students seem to retain more information either through relatively short daily instructional periods or by using longer instructional periods with at least a day in between to allow for individual assessment and analysis before the next formal instructional period.

Instructional Time, Achievement, and Race/Ethnicity

How does instructional time configuration impact seventh-grade students’ achievement on the social studies portion of a state-mandated test relative to gender and race/ethnicity? A three-way ANOVA comparing the sample’s four most frequently used instructional time configurations by the sample student population’s gender and race/ethnicity to the 2019 seventh-grade student SCPASS social studies test scores followed by an ANCOVA on the interaction among instructional time configuration, student gender, and student ethnicity using the 2019 Poverty Index to control for student poverty level was used to answer this question. Results showed a significant interaction among the variables instructional time configuration, student ethnicity, and the seventh-grade student SCPASS social studies test scores. White students, both before and after controlling for poverty, scored significantly higher on the seventh-grade student SCPASS social studies test than Mixed students, Mixed students scored significantly higher than Hispanic students, and Hispanic students scored significantly higher on the test than Black students regardless of the instructional time configuration used at the school. This result is consistent with general research findings that subgroup membership relates to achievement (Holman, 1995; Kohlhaas et al., 2010; Thomas & Stockton, 2003), and it is consistent with specific research addressing the race/ethnicity academic achievement gap (Clotfelter et al., 2009; Hull, 2017; Paschall et al., 2018; Phillips & Chin, 2004; Reardon & Galindo, 2009).

Additionally, results show Hispanic and Black students, while controlling for poverty level, scored higher on the seventh-grade student SCPASS social studies test in the instructional time configuration meeting daily for the longest period of time (80–90
minute all-year block schedule) than the other instructional time configurations. This finding coincides with previous research showing Hispanic and Black students perform better in block schedules with longer, concentrated periods of time than a traditional instructional time configuration (Canady & Rettig, 1995; Carroll, 1994; Evans, 2005; Fisher & Frey, 2007; Gill, 2011). Also, research on social studies instruction shows that longer class periods allow teachers increased opportunities for group activities and in-class projects (Bryant & Bryant, 2000; DiBiase & Queen, 1999; Hamdy & Urich, 1998; Johnson & Johnson, 1989) and allows them to abandon lectures and utilize strategies more compatible with individualized instruction (Slavin et al., 1989).

**Limitations**
The scope and of this study was limited to South Carolina public middle level schools that contained Grade 7. Schools classified as charter schools and schools with multiple elementary and/or secondary grades were not included. Because South Carolina assessed social studies state-mandated test results as part of a school’s report card calculation, caution must be used in making generalizations about social studies achievement in states that either do not assess social studies or do not assess it at the middle-level.

Further, because the results of this study considered instructional time configurations and achievement in social studies only in Grade 7, results could not be generalized beyond this grade level. Additionally, because this study was a “snap shot,” only how instruction time is configured over the course of a school year was considered. The analysis was limited to the most commonly used instructional time configurations. Finally, data were only available at the school level. Therefore, intervening variables such as differences in how time was used within schedules/classrooms, instructional strategies, teacher quality, teacher experience and training, skill in teaching social studies, or the amount of engaged learning time were not addressed.

**Conclusion**
The answer to our first research question comparing the social studies performance of middle grades students by the instructional time configuration used at the school revealed that, while controlling for poverty, students in schools using the instructional time configurations with the greatest amount of class time per week (61–79 minute block all-year and 80–90 minute block all-year schedule) had the lowest student achievement performance levels. Further, students in schools using the instructional time configurations with the least amount of class time per week (A/B 80–90 minute block all-year and traditional 45–60 minute block all-year schedule) had the highest performance levels. This seems to suggest that, for social studies, increasing the quantity of instruction time does not necessarily lead to higher state-mandated test scores and students seem to retain more information either though relatively short daily instructional periods or by using longer instructional periods with at least a day in between to allow for individual assessment and analysis before the next formal instructional period.

The second research question examined the relationship among the variables instructional time configuration, gender, race/ethnicity, and poverty on student test performance. Results indicated that, while controlling for poverty, White students scored significantly higher on the seventh-grade student SCPASS social studies test than Mixed students, Mixed students scored significantly higher than Hispanic students, and Hispanic students scored significantly higher on the test than Black students regardless of the instructional time configuration used at the school. Additionally, results show that Hispanic and Black students performed better in block schedules meeting daily for a longer period of time (61–79 minute all-year block and the 80–90 minute all-year block schedule) than the traditional configuration.

The results of this study should be somewhat frustrating, but also spark optimistic possibilities for advocates of middle level education. In their foundational position paper, *The successful middle school: This we believe* (Bishop & Harrison, 2021), members of the Association for Middle Level Education (AMLE) call for middle schools to adopt a responsive, flexible block schedule entirely controlled by the teaching team. With such a scheduling arrangement, the teaching team should decide daily—based on instructional objectives and knowledge of their students—how time should be proportioned out among the teachers of the various content areas. In other words, to be most effective, a scheduling configuration should regularly change based entirely on each team member’s instructional needs. However, as shown by the results of this study, and consistent with the results of a recent survey of middle grades teachers in the Southeast United States (see Alverson et al., 2019), most, if not all, schools and teaching teams are utilizing schedules consisting
of daily periods, whether it is traditional or a block schedule, of uniformed length. Thus, middle level schools are not taking advantage of the educational possibilities a flexible scheduling configuration can offer.

If middle grades teaching teams actually adopted a scheduling configuration consistent with the type advocated the AMLE (Bishop & Harrison, 2021), results of the study suggest social studies instruction would thrive in its implementation. According to this study, students seem to grasp social studies content better when learning in relatively short daily instructional periods. Thus, a daily, flexible block schedule could conceivably provide the other content area teaching team members more instructional time to meet their educational objectives. Furthermore, because the configuration is flexible, this study suggests social studies teachers of primarily Hispanic and Black students would be in a position to utilize longer periods of time, thereby providing all students with an educational experience in line with the vision articulated by AMLE.

Although this study has provided valuable information about the effect instructional time (i.e., scheduling configuration) has had on students’ social studies test performance, many questions still remain. We conclude with some questions to guide further research. For example, what differences are there in the instructional practices used by teachers in meeting state standards in traditional versus block schedule instructional time configurations? What are teachers’ perspectives regarding traditional and block instructional time configurations and student achievement on state-mandated tests? Finally, what differences are there in students’ grades and state-mandated testing performance among the different instructional time configurations?

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

Abrams, L. M., Pedulla, J. J., & Madaus, G. R. (2003). Views from the classroom: Teachers’ opinions of statewide testing programs. Theory into Practice, 42(1), 1–29. https://doi.org/10.1207/s15430421tip4201_4
Alberti, S. (2013). Making the shifts. Educational Leadership, 70(4), 24–27.
Alexander, W. M., Williams, E. L., Compton, M., Hines, V. A., Prescott, D., & Kealy, R. (1969). The emergent middle school (2nd ed.). Holt, Rinehart and Winston.
Alexander, N. A., & Jang, S. T. (2020). Policy, poverty, and student achievement: An exploration of the impact of state policies. Educational Policy, 34(4), 674–704. https://doi.org/10.1177/0895904818802114
Alverson, R., DiCicco, M., Faulkner, S. A., & Cook, C. (2019). The status of middle schools in the Southeastern United States: Perception and implementation of the middle school model. Middle Grades Review, 5(2), 1–15. https://scholarworks.uvm.edu/mgrevirw/vol5/iss2/3
Anderson, J. (1993). Re-Examining the relationship between school poverty and student achievement. ERS Spectrum, 11(2), 21–31.
Anfara, V. A., Jr., & Waks, L. (2001). Resolving the tension between academic rigor and developmental appropriateness (Part II). Middle School Journal, 32(3), 25–30. ERIC database. (ERIC Document Reproduction Service No. EJ628437). https://doi.org/10.1080/00940771.2001.11495273
Arhar, J. M. (1992). Interdisciplinary teaming and the social bonding of middle-level students. In J. L. Irvin (Ed.), Transforming middle-level education: Perspectives and possibilities (pp. 139–161). Allyn & Bacon.
Arhar, J. M., & Irvin, J. I. (1995). Interdisciplinary team organization: A growing research base. Middle School Journal, 26(5), 65–67. https://doi.org/10.1080/00940771.1995.11495312
Arnold, D. E. (2002). Block schedule and traditional schedule achievement: A comparison. NASSP Bulletin, 86(630), 42–53. https://doi.org/10.1177/019263650208663006
Bailey, G., Shaw, E. L., & Hollifield, D. (2006). The devaluation of social studies in the elementary grades. The Journal of Social Studies Research, 30(2), 18–29. http://find.galegroup.com/itx/start.do?prodId=PROF
Bevevino, M. M., Snodgrass, D. M., Adams, K. M., & Dengel, J. A. (1999). An educator’s guide to block scheduling. Allyn & Bacon.
Bishop, P. A., & Harrison, L. M. (2021). The successful middle school: This we believe. Association for Middle Level Education.
Blaise, J. (2018). The effects of high-stakes accountability measures on students with limited English proficiency. Urban Education, 53(9),
Bloom, B. S. (1974). Time and learning. The American Psychologist, 29(9), 682–688. https://doi.org/10.1037/0003-7473.29.9.682

J. D. Bransford, A. L. Brown, & R. R. Cocking (Eds.). (1999). How people learn: Brain, mind, experience, and school. National Academy Press.

Bryant, C., & Bryant, R. (2000). Social studies in the block schedule: A model for effective lesson design. The Social Studies, 91(1), 9–16. https://doi.org/10.1080/00377990009602435

Burroughs, S., Groce, E., & Webeck, M. L. (2005). Social studies education in the age of testing and accountability. Educational Measurement: Issues and Practice, 24(3), 13–20. https://doi.org/ISSN1949-7174-3992.2005.00015.x

Canady, R. L., & Rettig, M. D. (1995). Block scheduling, a catalyst for change. Larchmont.

Carroll, J. B. (1963). A model of school learning. Teachers College Record, 64(8), 723–733. https://doi.org/10.1177/016146816306400801

Carroll, J. M. (1994). The Copernican plan evaluated: The evolution of a revolution. Phi Delta Kappan, 76, 104–110, 112–113.

Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2009). The academic achievement gap in grades 3 to 8. The Review of Economics and Statistics, 91(2), 398–419. https://doi.org/10.1162/rest.91.2.398

Cobb, R. B., Abate, S., & Baker, D. (1999). Effects on students of a 4 X 4 junior high school block scheduling program. Education Policy Analysis Archives, 7(3), 20. http://epaa.asu.edu/epaa/v7n3.html

Cromley, J. G., & Azvedo, R. (2007). Testing and refining the direct and inferential mediation model of reading comprehension. Journal of Educational Psychology, 99(2), 311–325. https://doi.org/10.1037/0022-0663.99.2.311

Daniel, L. (2007). Research summary: Flexible scheduling. http://www.nmsa.org/Research/ResearchSummaries/FlexibleScheduling/tabid/110/Default.aspx

Davis, J. E., & Jordan, W. J. (1996). The effects of school context, structure, and experiences on African American males in middle and high school. The Journal of Negro Education, 65(1), 570–587. http://doi-org.pallas2.tcl.edu/10.2307/2967296

DeRouen, D. A. (1998). Maybe it’s not the children: Eliminating some middle school problems through block scheduling and team support. The Clearing House, 71(3), 146–148. https://doi.org/10.1080/00098659809599347

DiBiase, W., & Queen, J. A. (1999). Middle school social studies on the block. The Clearing House, 72(6), 377–384. https://doi.org/10.1080/00098659909599428

Dochy, F., Segers, M., & Buehl, M. M. (1999). The relation between assessment practices and outcomes of studies: The case of research on prior knowledge. Review of Educational Research, 69(2), 145–186. https://doi.org/10.3102/0346543069002145

Duel, L. S. (1999). Block scheduling in large, urban high schools: Effects on academic achievement, student behavior, and staff perceptions. High School Journal, 83(1), 14–25.

Evans, W., Tokarczyk, J., Rice, S., & McCray, A. (2002). Block scheduling: An evaluation of outcomes and impact. Clearing House, 75(6), 319–323. https://doi.org/10.1080/00098650209603964

Evans, R. (2005). Reframing the achievement gap. Phi Delta Kappan, 86(8), 582–589. https://doi.org/10.1177/003172170508600806

Every Child Succeeds Act (ESSA) of 2015, Public Law No. 114-95, S.1177, 114th Cong. (2015). http://www.congress.gov/114/plaws/publ95/PLAW-114publ95.pdf

Fisher, D., & Frey, N. (2007). A tale of two middle schools: The difference in structure and instruction. Journal of Adolescent and Adult Literacy, 51(3), 204–211. https://doi.org/10.1598/ JAAL.51.3.1

Ford, D., & Harris, J. (1992). The American achievement ideology and achievement differences among preadolescent gifted and non-gifted African American males and females. The Journal of Negro Education, 61(1), 45–64. https://doi.org/10.2307/2295628

Ford, D. (1992). The American achievement ideology as perceived by urban African American students: Explorations by gender and academic
program. *Urban Education*, 27(2), 196–211. https://doi.org/10.1177/0042085992027002006

Fryer, R. G., Jr., & Levitt, S. D. (2004). Understanding the black-white test score gap in the first two years of school. *The Review of Economics and Statistics*, 86(2), 447–464. https://doi.org/10.1162/003465304323031049

Fryer, R. G., Jr., & Levitt, S. D. (2006). The black-white test score gap through third grade. *American Law and Economics Review*, 8(2), 249–281. https://doi.org/10.1093/aler/ahl003

Gainey, D. D., & Brucato, J. M. (1999). *Questions & answers about block scheduling: An implementation guide*. Eye on Education.

George, P. S., & Alexander, W. M. (1993). *The exemplary middle school* (2nd ed.). Harcourt Brace.

Gill, W. W. A. (2011). Middle school A/B block and traditional scheduling: An analysis of math and reading performance by race. *NASSP Bulletin*, 95(4), 281–301. https://doi.org/10.1177/0192636511420998

Goodlad, J. I. (1984). *A place called school: Prospects for the future*. McGraw-Hill.

Gould, P. F. (2003, May 7). Scheduling choice. *Education Week*, 22(34), 34–35.

Gruber, C., & Onwuegbuzie, A. J. (2007). Effects of block scheduling on academic achievement among high school students. *High School Journal*, 84(4), 32–42. https://doi.org/10.1353/hsj.2001.0010

Gullatt, D. E. (2006). Bolck scheduling: The effects on curriculum and student productivity. *NASSP Bulletin*, 90(3), 250–266. https://doi.org/10.1177/0192636506292382

Guo, G., & Harris, K. M. (2000). The mechanisms mediating the effects of poverty on children’s intellectual development. *Demography*, 37(4), 431–448. https://doi.org/10.1353/dem.2000.0005

Hackmann, D. G. (1995). Improving the middle school climate: Alternating-day block schedule. *Schools in the Middle*, 5(1), 28–34.

Hackmann, D. G., & Valentine, J. W. (1998). Designing an effective middle-level schedule. *Middle School Journal*, 29(5), 3–13. https://doi.org/10.1080/00940771.1998.11495913

Hackmann, D. G. (2002). Block scheduling for the middle-level: A cautionary tale about the best features of secondary school models. *Middle School Journal*, 33(4), 22–28. https://doi.org/10.1080/00940771.2002.11494680

Hamdy, M., & Urich, T. R. (1998). Principals’ perceptions of block scheduling. *American Secondary Education*, 26(3), 8–12.

Heafner, T. L. (2018). More social studies? Examining instructional policies of time and testing in elementary school. *The Journal of Social Studies Research*, 42(3), 229–237. https://doi.org/1083-03559/j.jsr.2017.08.004

Hess, C., Wronkovich, M., & Robinson, J. (1999). Measure outcomes of learning under block scheduling. *NASSP Bulletin*, 83(611), 87–95. https://doi.org/10.1177/019263659908361111

Hirsch, E. D., Jr. (2006). The case for bringing content into the language arts block and for a knowledge-rich curriculum core for all children. http://archive.aft.org/pubs-reports/american_educator/issues/spring06/hirsch.htm

Holman, L. J. (1995, April). *Impact of ethnicity, class, and gender on achievement of border area students on high stakes examination* [Paper presentation]. The annual meeting of the American Educational Research Association, San Francisco.

Holme, J. J. (2013). Exit strategies: How low-performing high schools respond to high school exit examination requirements. *Teachers College Record*, 115(1), 1–23.

Hottenstein, D. S. (1998). *Intensive scheduling: Restructuring America’s secondary schools through time management*. Corwin Press.

Houser, N. O., Krutka, D. G., Roberts, P. R., Pennington, K., & Coerver, N. F. (2017). Navigating the Reform–Accountability Culture in Oklahoma Social Studies. *Theory and Research in Social Education*, 45(1), 7–42. https://doi.org/10.1080/00933104.2016.1213213

Hull, M. C. (2017). The academic progress of Hispanic immigrants. *Economics of Educational Review*, 57, 91–110. https://doi.org/1083-03559/j.econedurev.2017.02.002

Johnson, D. W., & Johnson, R. (1989). *Cooperation and competition: Theory and research*. Interaction Book Co.

Journell, W. (2010). The influence of high-stakes testing on high school teachers’ willingness to incorporate current political events into the curriculum. *The High School Journal*, 93(3), 111–125. https://doi.org/10.1353/hsj.0.0048

Kavanaugh, K. M., & Fisher-Ari, T. R. (2020). Curricular and pedagogical oppression: Contradictions within the juggernaut accountability trap. *Educational Policy*, 34(2), 283–311. httpdx.doi.palls2.tci.edu/10.1177/0885904818755471

Kenta, B. (1993). Moving with cautious velocity. *School Administrator*, 50(17), 19.
Knight, S. L., DeLeón, N. J., & Smith, R. G. (1999). Using multiple data sources to evaluate an alternative scheduling model. *High School Journal, 83*(1), 1–13.

Kohlihaas, K., Lin, H., & Chu, K. (2010). Disaggregated outcomes of gender, ethnicity, and poverty on fifth-grade science performance. *National Middle School Association: RMLE Online Research in Middle-Level Education, 33*(7), 1–12.

Kubitschek, W. N., Hallinan, M. T., Arnett, S. M., & Galipeau, K. S. (2005). High school schedule changes and the effect of lost instructional time on achievement. University of North Carolina Press.

Lare, D., Jablonski, A. M., & Salvaterra, M. (2002). Block scheduling: Is it cost-effective? *NASSP Bulletin, 86*(630), 54–71. https://doi.org/10.1177/019263650208663007

Lawrence, W. W., & McPherson, D. D. (2000). A comparative study of block scheduling and traditional scheduling on academic achievement. *Journal of Instructional Psychology, 27*(3), 178–182.

Leming, J. S., Ellington, L., & Schug, M. (2006). The state of social studies: A national random survey of elementary and middle school social studies teachers. *Social Education, 70*(5), 322–327.

Lewis, C. W., Cobb, R. B., Winokur, M., Leech, N., Viney, M., & White, W. (2003). The effects of full and alternative day block scheduling on language arts and science achievement in a junior high school. Education Policy Analysis Archives, *11*(41). http://epaa.asu.edu/epaa/v11n41/

Lintner, T. (2006). Social studies (still) on the back burner: Perceptions and practices of K-12 social studies instruction. *Journal of Social Studies Research, 30*(1), 3–8.

Mattox, K., Hancock, D., & Queen, J. A. (2005). The effect of block scheduling on middle school students’ mathematics achievement. *NASSP Bulletin, 89*(642), 3–13. https://doi.org/10.1177/0192636508964202

McEwin, C. K., Dickinson, T. S., & Jenkins, D. M. (1996). *America’s middle schools: Practices and progress: A 25-year perspective*. National Middle School Association.

McEwin, C. K., Dickinson, T. S., & Jenkins, D. M. (2003). *America’s middle schools in the new century: Status and progress*. National Middle School Association.

Mickelson, R. A., & Greene, A. D. (2006). Connecting pieces of the puzzle: Gender differences in black middle school students’ achievement. *The Journal of Negro Education, 75*(1), 34–48.

Mullen, J., & Woods, J. R. (2018). 50-state comparison: State summative assessments. http://www.ecs.org/50-state-comparison-state-summative-assessment

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*.

National Education Commission on Time and Learning. (1994). *Prisoners of time: Report of the National Education Commission on Time and Learning*. U.S. Government Printing Office.

No Child Left Behind Act, Pub. L. 107-110, 20 U.S.C. 6301, 115 Stat. 1425. (2002).

O’Connor, K. A., Heafner, T., & Groce, E. (2007). Advocating for social studies: Documenting the decline and doing something about it. *Social Education, 71*(5), 255–260.

Pace, J. (2012). Teaching literacy through social studies under No Child Left Behind. *Journal of Social Studies Research, 36*(4), 329–358.

Paschall, K. W., Gershoff, E. T., & Kuhfeld, M. (2018). A two decade examination of historical race/ethnicity disparities in academic achievement by poverty status. *Journal of Youth and Adolescence, 47*, 1164–1177. https://doi.org/s11145-008/s10964-017-0800-7

Payne, D., & Jordan, M. M. (1996). The evaluation of a high school block schedule: Convergence of teacher and student data. *American Secondary Education, 25*(2), 16–19.

Pederson, P. V. (2007). What is measured is treasured: The impact of the No Child Left Behind Act on nonassessed subjects. *The Clearing House, 80*(6), 287–291. https://doi.org/TCHS.80.6/TCHS.80.6.287-291

Phillips, M., & Chin, T. (2004). School inequality: What do we know? In K. Neckerman (Ed.), *Social inequality* (pp. 467–520). Russel Sage Foundation.

Pisapia, J., & Westfall, A. L. (1997). *Alternative high school scheduling: Student achievement and behavior*. Metropolitan Educational Research Consortium. ERIC database.(ED411337).

Queen, J. A., Algozzine, B., & Eaddy, M. (1996). The success of 4 x 4 block scheduling in the social studies. *Social Studies, 87*(6), 249–253. https://doi.org/10.1080/00377996.1996.10114496
Reardon, S. F., & Galindo, C. (2009). The Hispanic-White achievement gap in math and reading in the elementary grades. *American Educational Research Journal, 46*(3), 853–891. https://doi.org/10.3102/0021965409327645

Savage, T. V. (2003). Assessment and quality social studies. *The Social Studies, 94*(5), 201–207. https://doi.org/10.1080/00377990309600207

Seed, A. (1998). Free at last: Making the most of the flexible block schedule. *Middle School Journal, 29*(5), 20–21. https://doi.org/10.1080/00940771.1998.11495915

Seymour, C. M., & Garrison, M. J. (2016). What they think about how they are evaluated: Perspectives of New York State physical educators on teacher evaluation policy. *International Journal of Education Policy and Leadership, 11*(6), 1–11. https://doi.org/10.22230/ijepl.2016v11n6a727

Slavin, R. E., Karweit, N. L., & Madden, N. A. (1989). Effective programs for students at risk. Allyn & Bacon.

Slavin, R. E. (1994). Quality, appropriateness, incentive, and time: A model of instructional effectiveness. *International Journal of Educational Research, 21*(2), 141–157. https://doi.org/10.1016/0883-0355(94)90029-9

Snyder, D. (1997, October). 4-Block scheduling: A case study of data analysis of one high school after two years [Paper presentation]. The annual meeting of the Mid-West Educational Research Association, Chicago.

South Carolina Department of Education. (2009). *Palmetto assessment of state standards (PAS) social studies test blueprint for grades 3-8*. http://ed.sc.gov/agency/Accountability/Assessment/documents/PASS_SSBlueprint10_06_09.pdf

South Carolina Department of Education. (2019). *South Carolina Palmetto Assessment of State Standards—Science and Social Studies 2019 Technical Report*.

Steffes, D., & Valentine, J. (1996). The relationship between organizational characteristics and expected benefits in interdisciplinary teams. *Research in Middle Level Education Quarterly, 19*(4), 83–106. https://doi.org/10.1080/10848495.1996.11670083

Taboada, A., Tonks, S. M., Wigfield, A., & Guthrie, J. T. (2009). Effects of motivational and cognitive variables on reading comprehension. *Springer Science+business Media, 22*, 85–106. https://doi.org/s11145-008/s11145-008-9133-y

Tanner, L. (2008). No Child Left Behind is just the tip of the iceberg. *The Social Studies, 99*(1), 41–48. https://doi.org/10.1080/0098254991.41-48

Texas Education Agency Office of Policy Planning and Research: Division of Research and Evaluation. (1999). *Block scheduling in Texas public high schools*.

Thomas, J., & Stockton, C. (2003). Socioeconomic status, race, gender, & retention: Impact on student achievement. http://www.usca.edu/essays/vol72003/stockton.pdf

Thompson, S. C. (2000). Overcoming obstacles to creating responsive curriculum. *Middle School Journal, 32*(1), 47–55. https://doi.org/10.1080/00940771.2000.11495258

Turner, E. O., & Spain, A. K. (2020). The multiple meanings of (in)equality: Remaking school district tracking policy in a era of budget cuts and accountability. *Urban Education, 55*(5), 783–812. https://doi.org/10.1177/0042085916674060

Valentine, J. W., Clark, D. C., Irvin, J. L., Keefe, J. W., & Melton, G. (2003). *Leadership in middle-level education, volume I: A national survey of middle-level leaders and schools*. National Association of Secondary School Principals.

VanFossen, P. J. (2005). “Reading and math take so much of the time . . .”: An overview of social studies instruction in elementary classrooms in Indiana. *Theory and Research in Social Education, 33*(3), 376–403. https://doi.org/10.1080/00933110.2005.10473287

Veal, W. R., & Schreiber, J. (1999). Block scheduling effects on a state-mandated test of basic skills. *Education Policy Analysis Archives, 7*(29), 1–14. https://doi.org/10.14507/epaa.v7n29.1999

Vogler, K. E., & Virtue, D. (2007). “Just the facts, ma’am”: Teaching social studies in the era of standards and high-stakes testing. *The Social Studies, 98*(2), 54–58. https://doi.org/0.3200/TSSS.98.2.54-58

Vogler, K. E., & Burton, M. (2010). Mathematics teachers’ instructional practices in an era of high-stakes testing. *School Science and Mathematics, 110*(5), 247–261. https://doi.org/10.1111/ISSN1949-8594

von Zastrow, C., & Janc, H. (2004). *Academic atrophy: The condition of the liberal arts in America’s public schools*. http://www.menc.org/documents/legislative/AcademicAtrophy.pdf.
Walberg, H. J. (1988). Synthesis of research on time and learning. *Educational Leadership, 45*(6), 76–85.

Wanzek, J., Roberts, G., Vaughn, S., Swanson, E., & Sargent, K. (2019). Examining the role of pre-instruction academic performance within a text-based approach to improving student content knowledge and understanding. *Exceptional Children, 85*(2), 212–228. https://doi.org/10.1177/0014402918783187

Williamson, R. D. (1998). *Scheduling middle-level schools: Tools for improved student achievement.* National Association of Secondary School Principals.

Wills, J. S. (2007). Putting the squeeze on social studies: Managing teaching dilemmas in subject areas excluded from state testing. *Teachers College Record, 109*(8), 1980–2046. https://doi.org/10.1177/0161468107090804

Zamosky, L. (2008). Social studies: Is it history? *District Administration, 44*(3), 46–50.

Zepeda, S. J., & Mayers, R. S. (2006). An analysis of research on block scheduling. *Review of Educational Research, 76*(1), 137–170. https://doi.org/10.3102/00346543076001137

**Appendix A**

Example: SCPSS Social Studies Grade 7 Test Question

1. President Wilson's Fourteen Points showed that Wilson believed peace negotiations should correct the problems that led to World War I. What did his European allies believe a peace treaty should do?

   A make no changes to borders  
   B punish Germany for the war  
   C enforce mutual disarmament  
   D assist the Russian Revolution

Indicator Alignment: 7—4.2
Indicator Description: Explain the outcomes of World War I, including the creation of President Woodrow Wilson’s Fourteen Points, the Treaty of Versailles, the shifts in national borders, and the League of Nations.

Answer Key: B
Depth of Knowledge: 2
Estimated Difficulty: Medium Difficulty