IES Institute of Education Sciences

STUDY BRIEF
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Regional Educational Laboratory Central
At Marzano Research

How Legacy High School Students Use Their Flexible Time

There is growing attention to personalizing education to provide students with more flexibility in their education experiences and more time to master academic content. To personalize education, Legacy High School in Bismarck Public Schools, North Dakota, has implemented a schedule that allows students some choice in how they spend a portion of the school day outside of their regularly scheduled classes. Students can choose to use this flexible time, called flex-time, working alone or with classmates on school projects, visiting content-specific learning centers (to receive academic help or engage in enrichment activities), or relaxing with friends. For students who are struggling academically, however, teachers rather than students may determine how these students use some of their flex-time.

Leaders at Legacy High School and Bismarck Public Schools partnered with the Regional Educational Laboratory Central to examine how students use their flex-time. In particular, the study examined whether students with different demographic characteristics and academic achievement levels use their flex-time differently. The study found that, on average over the school year, students had approximately 80 minutes of flex-time a day and chose to use 19 percent of it for academic activities. Female students used a statistically significantly larger percentage of their flex-time (21 percent) for academic activities than male students did (17 percent). The percentage of flex-time used for academic pursuits did not vary by academic achievement level, although students who were struggling academically had a higher percentage of teacher-determined flex-time (9 percent) than did students who were meeting grade expectations (3 percent) and students who were excelling academically (less than 1 percent). Finally, when teachers determined how students used some of their flex-time, students used the largest percentage of that flex-time in school learning centers.

Why this study?

Following the recommendations of the Innovative Education Task Force,[1] the North Dakota Department of Public Instruction is implementing programs to support North Dakota schools and districts in developing and implementing innovative education approaches. One such innovation is personalized education, which allows students greater flexibility in their education experiences as well as more time to master academic content when necessary. To support personalized education, Legacy High School in Bismarck, North Dakota, employs a "flexible mod" schedule in which students are free to choose how to use a portion of their school day (called flex-time). Legacy High School also provides content-specific learning centers where students can receive academic help or engage in enrichment activities outside of classes. Students can use their flex-time to complete homework, make up tests or assignments, receive assistance in the learning centers, or relax with friends, among other activities. However, for students who are struggling academically, teachers can also determine how they use some of their flex-time.

1. Bachmeier, L. (2018). *Innovative Education Task Force: Final report.* Bismarck, ND: State of North Dakota, Office of the Governor. Retrieved November 21, 2019, from https://www.governor.nd.gov/sites/www/files/documents/Innovative-Ed-Task-Force-Final-Report.pdf.

Leaders at Legacy High School and Bismarck Public Schools partnered with the Regional Educational Laboratory Central to examine how students are using their flex-time and whether use of flex-time varies by student characteristics or level of academic achievement in math and reading.

What was studied and how?

The study addressed the following research questions for the 2018/19 school year:

1. How do Legacy High School students use their flex-time?

2. How does student use of flex-time differ by grade level or student demographic characteristics?

3. How does student use of flex-time differ by academic achievement level?

The study team used data collected by Legacy High School through an online time log in which students reported how they used their flex-time. The time log was administered in selected classes over five one-week periods during the 2018/19 school year. The study team also used student demographic and academic achievement data provided by Bismarck Public Schools and linked to the time log data. Achievement data were used to classify students as struggling, meeting grade expectations, or excelling in math and reading. A total of 568 students were registered in the selected classes. Of these students, 495 (87 percent) completed the time log at least once, representing approximately 45 percent of the Legacy High School student population. Approximately 86 percent of students in the study sample were White/non-Hispanic, 55 percent were male, and 17 percent were eligible for the national school lunch program (an indicator of socioeconomic disadvantage). Approximately 4 percent of the students were receiving special education services, and less than 1 percent were identified as English learner students. Approximately 10 percent of the students were classified as struggling in both math and reading, 71 percent were meeting grade expectations in at least one of these subjects, and 18 percent were excelling in both subjects. These characteristics are representative of the school population as a whole.

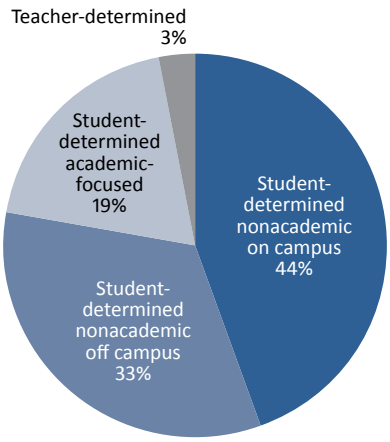
Findings

Students had an average of about 80 minutes of flex-time a day and chose to use most of it for nonacademic pursuits. The average amount of daily flex-time increased with grade level. On average, students determined how to use 97 percent of their flex-time, and teachers determined how students would use 3 percent (figure 1). Students used the largest percentage of their flex-time for nonacademic pursuits (78 percent), such as talking with friends or eating lunch, both on and off campus. The percentage of time students chose to use for academic activities (19 percent) did not vary across grades.

When students used their student-determined flex-time for academic pursuits, they used the largest percentages doing coursework outside of learning centers and focused on math and science. Students who chose to use any of their flex-time for academic activities spent 71 percent of that flex-time engaged in coursework outside of school learning centers and 7 percent of it focusing on academic subjects in learning centers. Students chose to use the smallest percentages of their student-determined academic-focused flex-time for internships (0.2 percent) and meetings with guidance counselors (0.6 percent). By academic subject, students chose to use the largest percentages of their student-determined academic-focused flex-time for math (21 percent) and science (18 percent) and the smallest percentages for foreign languages and art/music (4 percent each).

The largest percentages of students' teacher-determined flex-time were used in learning centers and focused on math and science. Teachers determined a very small percentage of students' use of their flex-time (3 percent), affecting just 61 students. When teachers determined students' use of flex-time, they required students to

Figure 1. Legacy High School students determined how to use a majority of their flex-time and used the largest percentage of it for nonacademic pursuits on campus, 2018/19



Note: *n* = 495. Percentages do not sum to 100 because of rounding, student nonresponse to particular time log questions, and student reporting errors. See table D1 in appendix D for detailed results.

Source: Authors' analysis of 2018/19 school year data provided by Bismarck Public Schools.

use the largest percentages of that flex-time in learning centers (42 percent) and for other academic activities (28 percent) such as taking tests or completing assignments. By academic subject, students used the largest percentages of their teacher-determined flex-time for math (24 percent) and science (11 percent). They used the smallest percentages for social studies, foreign languages, and physical education (3 percent each).

Among students who determined how to use their flex-time, female students used more of that flex-time for academics than male students did. Female students used significantly more flex-time for academic pursuits (21 percent) than male students did (17 percent). Male students chose to use significantly more of their academic-focused flex-time for math (24 percent) than female students did (18 percent).

Students who were struggling academically had more teacher-determined flex-time than other students did. Students who were struggling in both math and reading had significantly more teacher-determined flex-time (9 percent of total flex-time) than did students who were excelling in both subjects (less than 1 percent) and students who were meeting grade expectations or excelling in at least one subject (3 percent). Although there were no significant differences in the percentage of teacher-determined flex-time between students struggling in math and other students, students struggling in reading (6 percent) had significantly more teacher-determined flex-time than other students (2 percent) did.

Students who were struggling academically, particularly in reading, used significantly less of their student-determined academic-focused flex-time time for coursework outside of the learning centers and significantly more for "other" academic activities than did students who were not struggling. Students who were struggling in both math and reading chose to use significantly less of their student-determined academic-focused flex-time for coursework outside of the learning centers (47 percent) than did students who were meeting grade expectations in at least one of these subjects (70 percent) and students who were excelling in both subjects (89 percent). Struggling students chose to use significantly more of their academic-focused flex-time (31 percent) for "other" academic activities than did students who were meeting grade expectations in at least one of these subjects and students who were excelling in both. Additionally, students who were struggling in reading chose to use significantly less of their student-determined academic-focused flex-time for English language arts (5 percent) than did students who were meeting grade expectations (19 percent). There were no significant differences by math achievement.

Implications

The flexible mod schedule allows students time to focus on academic activities outside of regularly scheduled classes, as needed, but the study found that students were using only 19 percent of their total flex-time for academic activities. That suggests that students may need more support in using flex-time for personalized learning.

The purpose and benefits of the school learning centers might need to be re-emphasized to students and teachers alike, as the study found that students used the centers relatively infrequently. When students chose to use their flex-time for academic activities, they used far more of that flex-time for coursework outside the centers. Students who were struggling academically were no more likely to use the learning centers than other students were. When teachers determined how students used some of their flex-time, they required students to use most of that time engaged in academic activities in the learning centers. However, these activities made up a very small percentage of students' total flex-time. Leaders at Legacy High School and Bismarck Public Schools recognize that the learning centers are underused. They intend to better inform teachers and students about the academic enhancement, career exploration, and other resources that the learning centers offer.

The study findings also suggest that students with certain demographic characteristics or students who are struggling academically may benefit from targeted supports. Ideally, struggling students would use more time for coursework, whether in or out of the learning centers, and would remain on campus for their nonacademic flex-time, which could increase the amount of flex-time spent on academic pursuits because of greater access to academic supports. However, the study found that this was not the case. The low percentage of flex-time used for academic activities also suggests that school administrators and teachers might consider providing additional supports for students, including students with specific demographic characteristics, to help them use their flex-time more effectively.

A limitation of the study is that it did not allow for an examination of the specific activities of students who used their flex-time for academics in or out of the learning centers. Additionally, students' academic achievement levels were based on test scores from the previous year. Therefore, it was not possible to determine whether engaging in specific academic activities was correlated with subsequent or current academic achievement.

Educators implementing school schedules that provide students with choice in how they use some of their time during the school day might consider the results of this study when evaluating student choice in their own schools. The results may also prompt educators employing such flexible schedules to provide additional supports to help students make productive choices in their use of school-day time outside the classroom.

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Brodersen, R. M., Joyce, J., Yanoski, D., & Underwood, K. (2020). *How Legacy High School students use their flexible time* (REL 2020–031). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. https://ies.ed.gov/use-work/resource-library/reports/