

Analyzing Impact of Student Schedules on Academic Performance in Thousand Oaks High School

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Hello!

About me:

- ◆ AP Research Student
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1.

Interest In Topic

Topic Evolution

- ◆ Nutrition and academic performance in college students.

To...

- ◆ Nutrition and academic performance in high school students.

To...

- ◆ Sleep habits and academic performance in high school students.

To...

- ◆ Electronic distractions and academic performance in high school students.



Current topic:

Daily Schedules and Academic
Performance in High School
Students

2.

Literature Review

Physical Impacts of Lack of Sleep

- ◆ Shorter sleep durations in adolescence negatively impacts key development areas.
- ◆ Lethargy, depressed moods, and difficulty of maintaining regular sleep regiment.

Mental Impacts of Lack of Sleep

- ◆ Lowered ability to retain information in class.
- ◆ General lack of focus in students.
- ◆ Reduced motivation to succeed academically.

Impacts of Poor Nutrition

- ◆ Daytime drowsiness, reduced memory retention.
- ◆ Longer time to recover from physical activities
- ◆ Absenteeism increased in populations with lower access to nutritional foods.

Existing Literature Focuses


- ◆ School schedule start times
- ◆ Student nutrition
- ◆ Sleep schedule of students



3. Gap in Research

Existing Literature Focuses

- ◆ **Not much investigation into factors other than sleep or nutrition.**
- ◆ **Shift focus to combination of students' entire schedules.**



4. Research Question



What aspect of a student's daily schedule affects their academic performance most significantly?



5. Methods

What Information Do I Need?

- ◆ Sleep and wake times
- ◆ Sleep duration
- ◆ Hours of work, extra curricular activity, and sports
- ◆ Academic performance
 - ◆ GPA and estimated grades.
- ◆ How it impacts each.

Why Choose to Use a Survey?

- ◆ Proven to be effective as seen in existing literature.
- ◆ Ability to easily compile and analyze data.
- ◆ Creation of a “schedule” for each student’s typical day.

Surveys Modeled After

- ◆ Mary A. Carskadon’s “Sleep Schedules and Daytime Functioning in Adolescents”.
- ◆ Kerry L. Moulin and Chia-Jung Chung’s “Technology Trumping Sleep: Impact of Electronic Media and Sleep in Late Adolescent Students”

Technology Trumping Sleep: Impact of Electronic Media and Sleep in Late Adolescent Students

- ◆ Explore what impact that electronics use has on schoolwork and sleep habits.
- ◆ Subject responses report correlation between electronics use and academics.
- ◆ Shorter sleep durations during key developmental stage in adolescence.

Sleep Schedules and Daytime Functioning in Adolescents

- ◆ Relationship between adolescents' sleeping and waking habits and their daytime functioning.
- ◆ Sleep duration of subjects decreased from 13 years old to 19 years old.
- ◆ Shorter sleep leads to lethargy, depressed moods, and problems with sleeping itself.

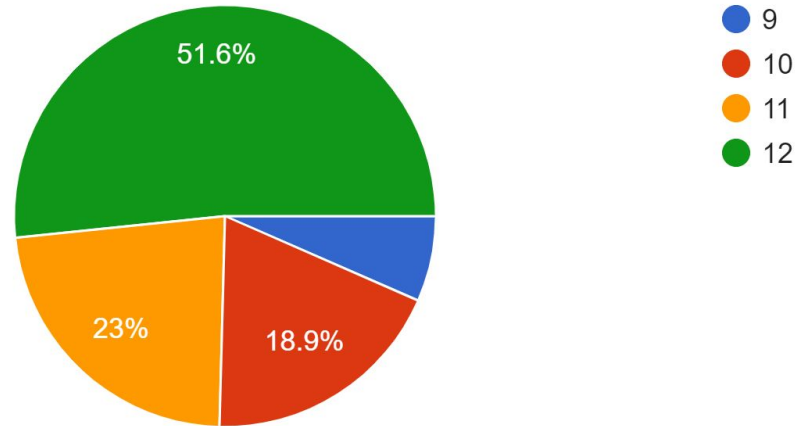


6. Results and Findings

Grade spread

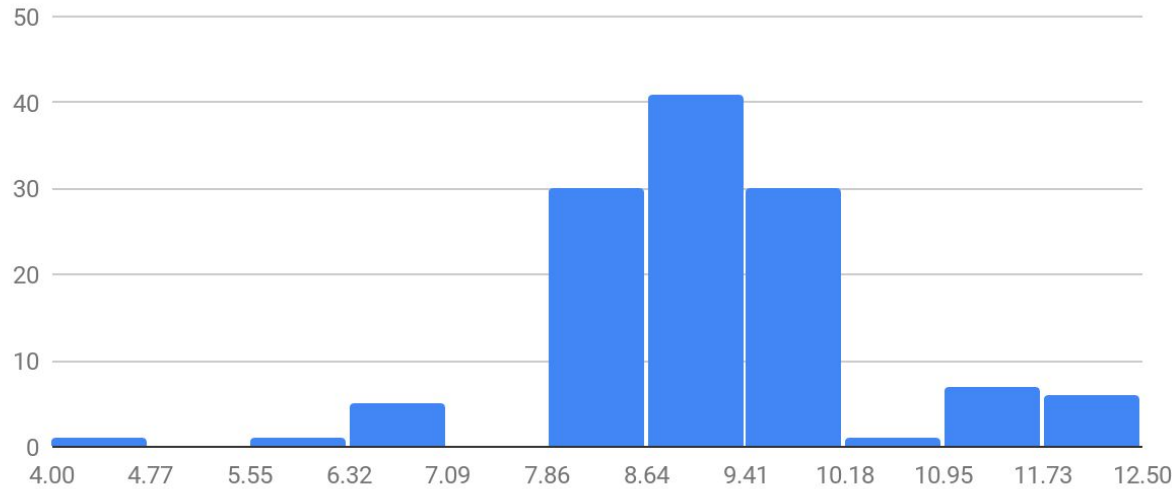
What grade are you in?

122 responses



Weekend Sleep

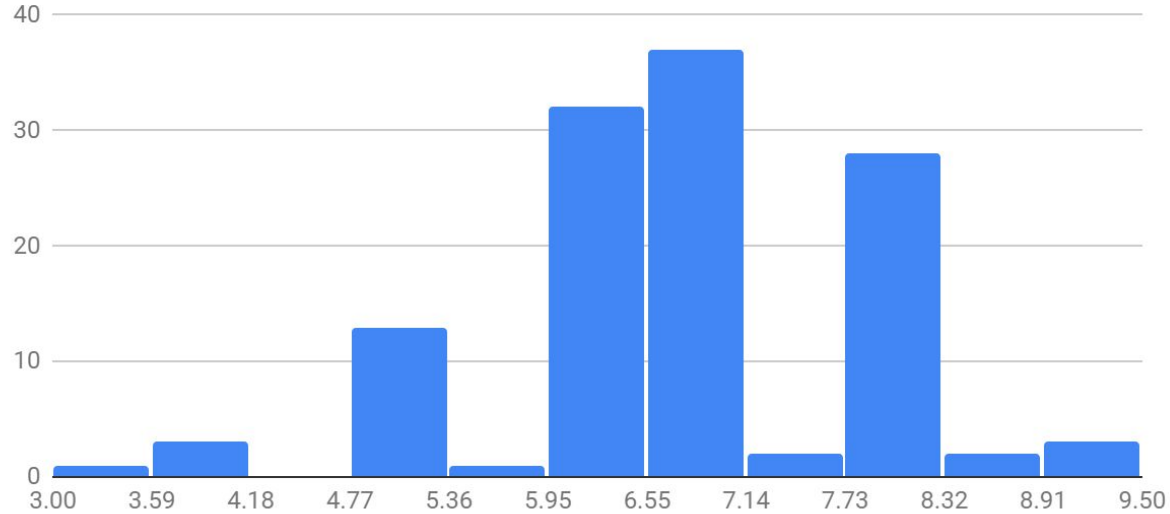
Histogram of On average, how many hours of sleep do you get on a weekend? (Or any night without school the next day)



On average, how many hours of sleep do you get on a weekend?

Weeknight Sleep

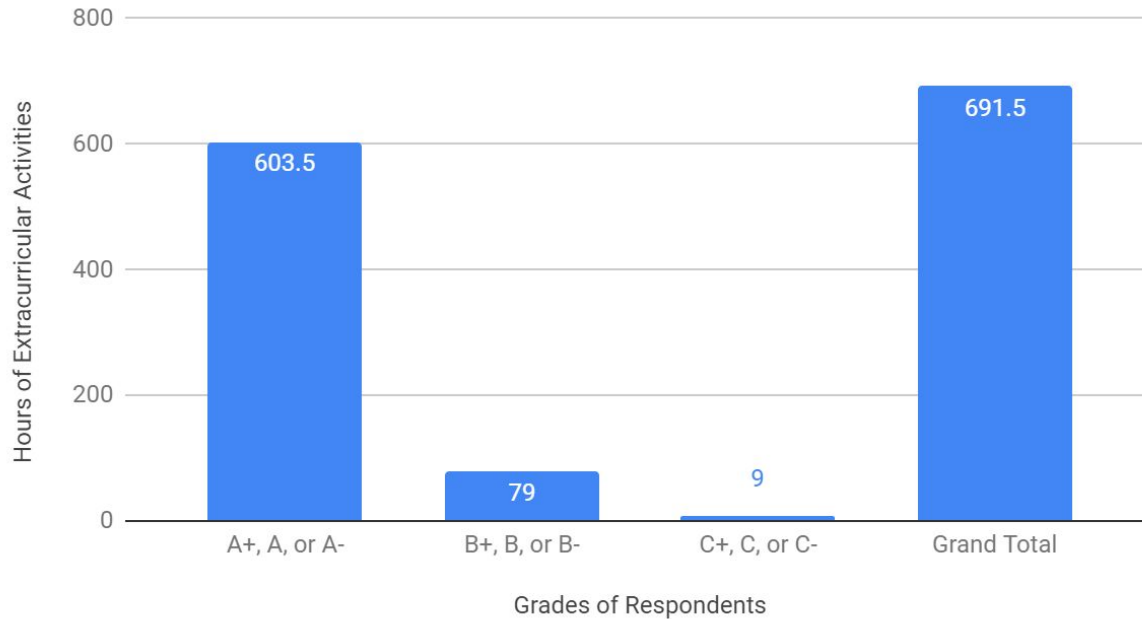
Histogram of On average, how many hours of sleep do you get on a school night?



On average, how many hours of sleep do you get on a school night?

Extracurricular activities

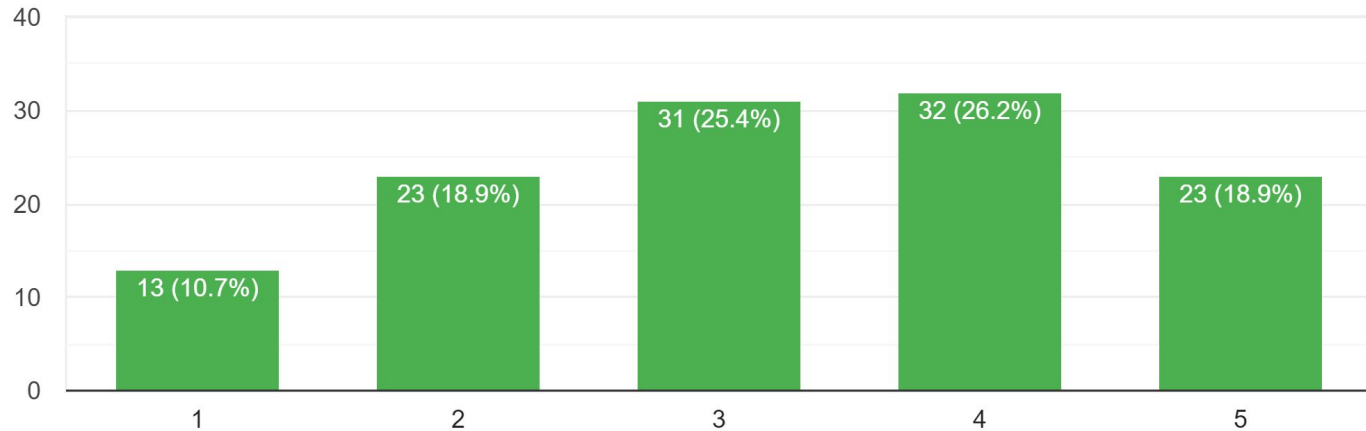
Hours of Extracurricular Activities compared to Grades



Academic Workload

Rate how much your academic workload affects your sleep?

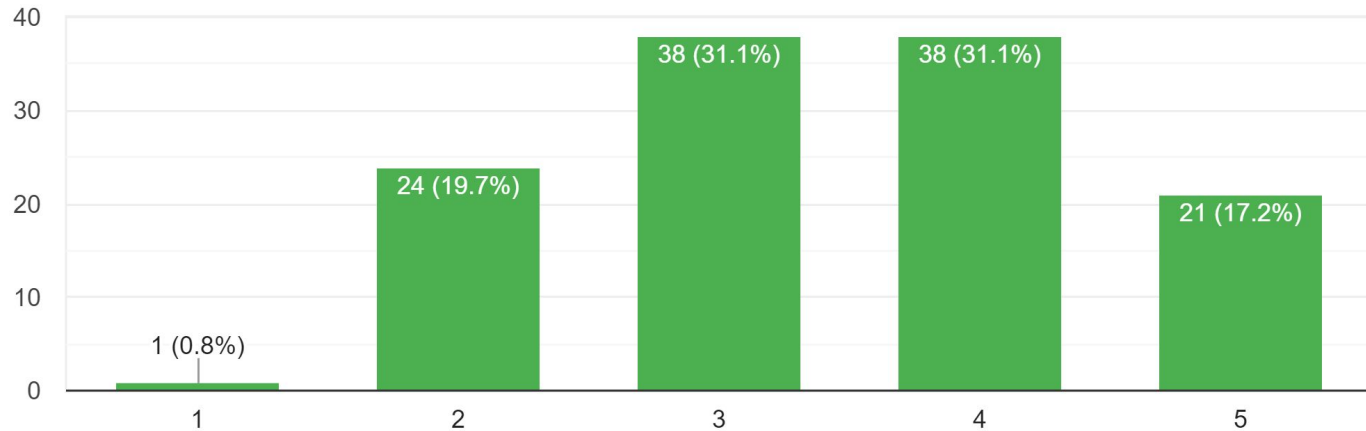
122 responses



Electronics Distractions (Academic)

Rate how much electronics use distracts you in your studies

122 responses





7. Conclusions

Claims

- ◆ Students who participate in more extracurricular activities receive higher grades.
- ◆ Balanced academic workload leads to higher academic performance.
- ◆ Electronics prove to have little actual impact on studies, while impacting sleep.



8. Discussion

Limitations

- ◆ Grade level distribution
- ◆ Only one school sampled
- ◆ Relatively small percentage of school

Future Research

- ◆ Consolidate Survey Questions
- ◆ Conduct supplementary interviews
- ◆ Widen sampled population

Sources Cited

Moulin, Kerry L., and Chia-Jung Chung. "Technology Trumping Sleep: Impact of Electronic Media and Sleep in Late Adolescent Students." *Journal of Education and Learning*, vol. 6, no. 1, 2016, p. 294., doi:10.5539/jel.v6n1p294.

Carskadon, M. A., & Jenni, O. G. (2007). *Child and adolescent sleep: An issue of Sleep Medicine Clinics*. Edinburgh: Elsevier Saunders.

Blazer, C. (2009). *Delayed High School Starting Times*. Information Capsule. Volume 0908. Place of publication not identified: Distributed by ERIC Clearinghouse.

Crowley, S. J. (2009). *Weekend recovery sleep in adolescents: Can it occur without a circadian phase delay?*

Credits

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- ◆ Henri Mondschein
- ◆ Lala Badal
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Thanks!

Any questions?