

# **Influence of Extracurricular Activities on Academic Performance**



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### Introduction

#### • Study found that children spend about half their time in leisure. (Larson and Verma, 1999)

- Extracurricular activities such as youth sports and hobbies provide a possible way for students to fill their leisure time.
- With technology such as television and personal electronic devices becoming more available, there are now even more options for youth entertainment and ways to spend time.

### Univariate

• **Participation in extracurriculars** per week: 8.85% in none, 15.72% in 1-2, 18.81% in 2-4, 22.0% in 4-6, 16.64% in 6-8, 9.79% in 8 or more times, and 8.20% in 10 or more times.

Results

- Academic letter GPA: 38.7% A, 42.99% B, 16.92% C, and 1.39% D average. **GradesCat** 13.8% C or D, 61.5% A or B
- **Gender:** 51.61% of students were female, 48.39% male.

- Filling that leisure time in the most productive way possible is important for students as many scientists argue that leisure time could be spent in more productive ways that help decrease developmental issues (Eccles and Gootman, 2001).
- Much of the current research on extracurriculars and academic performance is either inconclusive or contradicts itself.

## **Research Questions**

- Is there a relationship between amount of extracurricular activities participated in and academic performance?
- If so, does the relationship between extracurriculars and academic performance differ for boys and girls?

#### **Bivariate**

- Chi-Square analysis showed that, students who participated in more extracurriculars were more likely to get higher grades (p < .0001).
- This means that there is a larger proportion of A and B level students at higher rates of extracurricular participation. See **Figure 1**.

Figure 1. Proportion of Students by letter GPA and Weekly Extracurricular Frequency



#### **Multivariate**

#### Sample

 Respondents (n=6,504) were drawn from the National Longitudinal Survey of Adolescent Health

Methods

(ADDHEALTH). This study followed a national survey of adolescents aged 7-12 in the United States over time in multiple waves of questioning. The present analysis will concentrate on the 1st wave of surveying in 1994.

#### Measures

- **Participation in extracurriculars** was assessed using the sum of two questions about weekly sports and hobbies participated in. Each response was coded on a scale of 1 to 4, then summed. Scores ranged from 2 (0 times per week to 8 (10 or more times per week).
- Academic performance was measured using a series of questions regarding grades in 4 subjects: English, Math, History or Social Studies, and Science. Answers ranged from 1 (A) to 4 (D or lower) and the responses were then averaged. Also have a binary variable **GradesCat**, 1 for receiving A and B, 0 otherwise.
- **Gender** was coded dichotomously with 1 (Male) and 2 (Female).

**Figure 2. Proportion of Subjects at Each** 

- There is a statistical significance between **extracurricular activities** and **academic performance**. Students who participate in more extracurriculars are 1.228 times more likely to have good grades (A or B average)
- Males are 0.475783 less likely to have good grades then females.
- When accounting for the interaction between gender and extracurricular activities, gender is a significant moderator since the interaction term between gender and extracurricular activities is significant. (p < 0.05).
- However, the association between gender and grades becomes nonsignificant when controlling for the moderating effect of extracurricular activities on gender. See **Figure 2**



**Grade Average based on Extra Curriculars** and Gender

### Discussion

- Extracurricular activity participation may affect academic performance in adolescents.
- Parents and schools may use this information to determine the value of extracurriculars and whether creating mandatory programs is beneficial.
- They also may use this information to potentially increase academic performance in adolescents.
- Student gender changes the relationship between extracurricular activities and grades
- Further research is needed to determine whether this association is confounded by other factors such as household income or homelife etc....

Eccles, J.S., Gootman, J. A. (2001, November 30). Community programs to promote youth development. ERIC. Retrieved March 3, 2023, from https://eric.ed.gov/?id=ED465844

Larson, R. W., & Verma, S. (1999). How children and adolescents spend time across the world: work, play, and developmental opportunities. *Psychological Bulletin*, 125(6), 701–736. https://doi.org/10.1037/0033-2909.125.6.701