



Music and academic performance

Christal Mapson and David Caicedo, PhD.
Social Sciences, Human Services, and Criminal Justice Department



Introduction

- Playing a musical instrument increases cognitive ability (Janurik & Jozsa, 2022).
- Much research has been done on the relationship between musical ability and academic performance (Cabanac, Perlovsky, & Cabanac, 2013).
- Studies even conclude that school-based music training has an effect on memory and learning (Roden, I. et al., 2012).
- There is a lack of research evidence on the relationship between students who actively play a musical instrument but do not take a music course and their academic performance.
- The aim- to study what is the relationship between students who actively play 1 or more musical instruments and their GPA's.

Methodology

- Target sample: 500 participants (an estimated 60% women, 40% males).
- Recruited online through their professors and offered extra as compensation for completion.
- Participants play at least one musical instrument.
- Participants completed the online survey via a Qualtrics link, outside of their class time,
- Participants answered 14 close-ended questions about their demographics, musical ability, and academic performance.
- Some of the questions asked on the survey were, “How many hours do you play weekly?”, “How long have you been playing?”, and “What is your GPA?”.

Results

- All participants are expected to play at least one musical instrument.
- It is predicted that most students play a musical instrument for 5 to 9 hours a week.
- It is predicted that most participants have been playing a musical instrument for over a year.
- It is predicted that most students have taken music classes outside of school.
- A positive correlation between the ability to play musical instruments and academic performance.

■ Figure #1 shows a sample of the questions asked in the survey.

- **If yes, how long have you been playing?**
 - less than 6 months
 - 6 months – 1 year
 - 1 year – 5 years
 - More than 5 years
- **How many hours do you play weekly?**
 - less than an hour
 - 1-2 hours
 - 3-4 hours
 - 5-9 hours
 - 10-15 hours
 - 20- 30 hours
 - 30+ hours
 - I do not play currently
- **Have you taken any music courses in school?**
 - Yes
 - No
- **Do you take any music classes outside of school?**
 - Yes
 - No
- **What is your major?**
 - Mathematics
 - Natural science (please specify) _
 - Geography
 - Criminal justice
 - Social science (please specify)
 - Language arts

Conclusions

- Hypothetically, there is a positive correlation between the musical ability of non-music students and their GPAs.
- Knowing this may encourage students to enhance their academic performance whether they are willing to part take in music academically or not.
- One limitation would be a limited sample size only recruited from the social department.
- A future implication can be understanding the role of gender and musical ability in academic performance

References

- Cabanac, A., Perlovsky, L., M-C., & Cabanac, M. (2013). Music and academic performance. *Behavioral Brain Research*, 256, 257-260
- Janurik, M., & Jozsa, K. (2022). *Long-term impacts of early musical abilities on academic achievement: A longitudinal study.* *Journal of Intelligence*, 10 (3), 1-18.
- Roden, I. et al., (2012). *Effects of a school-based instrumental music program on verbal and visual memory in primary school children: A longitudinal study.* *Frontiers in Psychology*

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