



Learn Math with Music!

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Abstract

The aim for this project was to promote the incorporation of Math and Music taught simultaneously. This project will showcase the benefits of integrating Math comprehension with the integration of Music. This project also shows the dislikes and difficulties on how Math and Music will have its downsides. The problem of this project addressed is the struggles of student's ability to understand and focus on Math. This project will dive deeper on how each type of learner will be able to thrive off the integration of Math and Music such as kinesthetic, auditoril, and visual learners.

Introduction

Introduction: Music is relevant to anyone's life. It's able to bring joy, sadness, anger, comedy, laughter, and various other emotions. Music is able to allow ideas or thoughts to flow instantly. Music has many wonders that it becomes an eye opener to the imaginative possibilities. How can Math be more interesting with the incorporation of Music? When people think of a Music or a song, anyone can think of a specific song because of the lyrics, the melody, the sounds, and the attachments it brings to the person. So, what if Math can do the same but in the form of a song? If Math involves Music, anyone will be able to remember instantly of a particular song to solve a problem, recall a formula, and even understand a concept in Math.

Research Question: How effective is the understanding of Math with the incorporation of Music?

Hypothesis: If Music was integrated with Math, then students will be able to understand and recall Math concepts because of the rhythm and sound of Music.

Research Design & Data Collection

To answer the question on the effectiveness of Music incorporation in Math, resources were used from peer reviewed journal from UH West O'ahu, the National Council of Teachers and Mathematics (NCTM), and scholarly article from Taylor&Francis Online. The research from the journal article was conducted on second grade students during the summer school year. After these students failed the school year, students who had the lowest scores were chosen to be apart of the research to be taught with implementation of Music in Math.

Results

Listed below shows the results of the eleven students who were chosen to be apart of the research. The evidence shows of the student test scores at the end of the year, scores at the end of the summer school, and the difference of the two scores. Nine out of the eleven students were able to increase their learning showing the effectiveness of incorporating Music into Math. The bar graph shows also shows the school year average score in purple (37%), the highest school score in maroon (57%), the summer year average score in cream (53%), and the highest summer school score in light blue (83%).

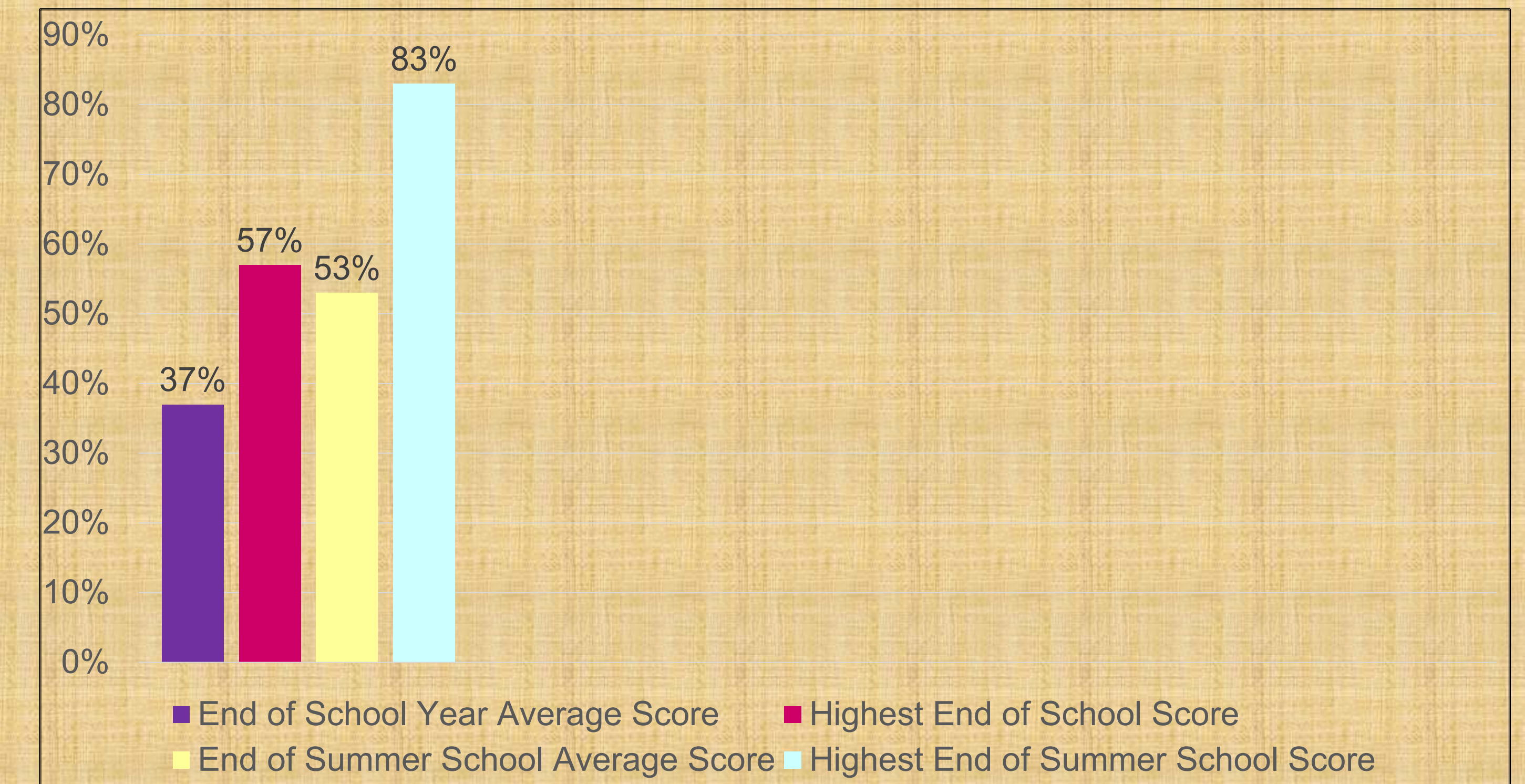


Figure 1. Highest Test Scores and Averages

Discussion

Based on each resource, all three concluded that Music is effective when integrated into Math. When students are given the option to use Music as a tool or resource, they are given an opportunity to be engage, focus, and creative while educating themselves with Music. Math and Music share similar concepts such as patterns, concepts, and skills. Music and Math provide the exploration of fun while learning.

Conclusions

- Music is a useful resource that can be used as an effective learning strategy.
- As integrated into Math, students become engage while learning with Music.
- Music can be used to achieve higher level of thinking.
- Music and Math associate with various learning styles.

Table 1. Student Test Data.

Student	End of the Year CBA	Summer School CBA	Difference
A	43%	50%	7
B	57%	42%	-15
C	14%	67%	53
D	43%	50%	7
E	43%	Absent Week of Training	N/A
F	29%	33%	4
G	43%	83%	40
H	29%	50%	21
I	57%	67%	10
J	29%	33%	4
K	29%	58%	29



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