# IMPACT OF MUSIC /NON-MUSIC RESPONDENTS ABOUT ACADEMIC PERFORMANCE OF GOVERNMENT SCHOOL 

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#### Abstract

This paper looks at the Effect and examines the studies that have challenged the original premise of Rauscher (1993). Research indicates that listening to music, and background music, can impact on academic performance; however this effect is due to the fact that music can induce arousal and mood changes which, in turn, stimulate learning, rather than to any specific characteristics of music. The impact that music can have in learning situations is examined based on evidence from music psychology. Suggestions are made as to how and what kind of music might be used in different classroom situations to create particular and more effective learning environments. Proposals and recommendations are made for future research in this area.


Keywords: Adolescents, Music/non music, Academic Performance, Government School.

## 1. Introduction

Music is an important aspect in many people's lives, especially teenagers but research on this topic is limited. In particular, there is minimal research about the effects of "popular" background music on academic tasks. Researchers have been investigating students' homework environment and the subsequent effects on homework performance for decades (Pool, Koolstra, \& van der Voort et al., 2003; Pool, van der Voort, Beentjes, \&Koolstra, 2000). In 1983, Patton, Stinard, and Routh asked the question, "where do children study," and their results influenced many future studies. The researchers surveyed $\mathrm{N}=387$ students in Grades 59 about his or her homework environment when reading or completing written or mathematic assignments. The study showed that most students preferred a quiet environment when reading but completed mathematic and written assignments in the presence of music or the
television. Students rated the effects of different stimulations while completing academic tasks and indicated that the television was considered a moderate distracter but the students reported the music as beneficial. Patton, Stinard, and Routh's study showed that students read in a quiet setting but then changed their environment for different homework tasks; thus showing an awareness of what they feel is their best homework environment and a level of maturity by the students in making that choice. Background music is defined as any music played while the listener's attention is focused on a task or activity other than listening to music (Radocy \& Boyle, 1988). Over the past few decades, background music has become more and more prevalent in our society. Background music is commonly used in grocery stores, restaurants, and shopping malls to increase sales, and is often used in doctors' offices to relax or calm patients. Some students claim that they are able to study and learn more effectively with music in the background, while others claim that the music is more of a distraction. The advertising industry has been responsible for much research into the effect of background music on a wide range of diverse activities, from driving to gambling to eating at a restaurant. Background music has been shown to affect the in-store behavior of consumers; shoppers move at a slower pace through stores when slow music is played, and spend more money than when the background music is fast (Garlic and Owen, 2005). Pleasant background music in restaurants is associated with more time spent over a meal, and more time in the restaurant influences the amount of money spent (Hibbert, 2002). Music is widely used as an emotional stimulus in advertising to stimulate purchase motivation (Morris \& Boone, 1998).

## 2. Objective of this Study

The Aim and objective of the study is to assess about the Opinion of respondents (music/nonmusic) about Academic Performance of Government School.

## 3. Methods and Material

## Research design

A research design is the specification of methods and procedure for acquiring the information needed. The research design for the present study was descriptive cum exploratory research design. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular, individual or of a group.

## Sampling design

The sample size for the study was 120 which 60 (male and female) respondents of Government and 60 (male and female) respondents of Private schools were selected respectively. The multistage purposive random sampling was used to collect the sample from different selected schools (Government and Private) of Lucknow city.

## Methods of data collection

As the study is descriptive cum exploratory in nature, survey method was adopted to collect the information from the target population. A well-structured and pre-tested interview schedule along with standardized scales (A group of intelligence, R. k. Tendon and Achievement test in science, S.C. Gakhar and Dr. Rajnish) was used to gather information from the respondents. Interview schedule was used with great care so as to have minimum possible biasness. "English" version of the Intelligence scale was used for data collection.

Data Analysis: For the analysis of data the following steps were followed:
(A)-Coding-A coding plan was developed in which code number were given to every question and its responses and then tabulated on the coding sheet. According to the responses in the schedule were coded.
(B)-Tabulation-The coded data was transferred from the coding sheet to comprehensive table to give a clear picture of the data.
(C)-Statistical Analysis-The descriptive relational statistic were frequency and percentage distribution, mean and standard deviation and to test the hypothesis, relational statistics like Anova and correlation were calculated. SPSS (version 20) was used to analyze descriptive and relational statistics.
4. Testing of Hypothesis

## Ho1: There exist no differences between the Academic Performance among Music and Non- Music of Government School.

| S.no. | Statements | Type of School |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Government School |  |  |  |
|  |  | Mean | Std. | f-value | Sig. |
| 1. | A balanced chemical equation is in accordance with. | . 37 | . 486 | 9.033 | 0.003* |
| 2. | This among the following is NOT a property of crystalline Solids. | . 43 | . 500 | 9.210 | .003* |
| 3. | The absolute value of charge on the electron was determined by. | . 87 | . 343 | 11.800 | .001* |
| 4. | The value of $20 \mathrm{~m} / \mathrm{s}$ in $\mathrm{km} / \mathrm{hr}$. | . 27 | . 446 | 8.281 | .005* |
| 5. | The equation which indicates Charles's Law. | . 73 | . 446 | 1.379 | . 243 |
| 6. | At what temperature would the vol. of given mass of a gas at constant pressure be twice its vol. at zero degree C. | . 85 | . 360 | 11.322 | . 001 |
| 7. | At a given temp. And pressure, 14 g of Nitrogen will have the same vol. as 14 g of. | . 70 | . 462 | . 010 | . 920 |

( $\mathrm{P}>0.01^{* *}$, Level of high Significant)
Result depicted in Table no 4.4.2 discussed that difference between Type of School and Academic Performance of adolescent. Data revealed that some of the parameters a balanced chemical equation is in accordance with, this among the following is not a property of crystalline Solids, The absolute value of charge on the electron was determined by, the value of $20 \mathrm{~m} / \mathrm{s}$ in $\mathrm{km} / \mathrm{hr}$ is. , f - value was found Significant. Data revealed that some of the parameters
the equation which indicates Charles's Law is, at a given temp. And pressure, 14 g of Nitrogen will have the same vol. as 14 g of. (0.920), f-value was found not significant .Which means there is significant difference. Which means null hypothesis was accepted. Data revealed that parameter, How many electrons with $\mathrm{e}=2$ will be there in atom having atomic no.23, this of the following contains the greatest mass of chlorine, $f$ - value was found highly significant (0.000). It means that there is no significant difference between the Academic Performance and Type of School. This mean that null Hypothesis is rejected.

## 5. Result and Discussion

Table 1: Distribution of the respondents (Music/ Non-Music) on the basis of opinion about Academic Performance of Government School.

| S.no. | Statements | Government |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Music |  |  |  | Non-Music |  |  |  |
|  |  | Boy |  | Girl |  | Boy |  | Girl |  |
|  |  | Yes | No | Yes | NO | Yes | No | Yes | No |
| 1. | Suitable unit for <br> Gravitational constant G. | $\begin{aligned} & \hline 7 \\ & (6.8) \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (4.6) \end{aligned}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 10 \\ & (8.33) \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (4.16) \end{aligned}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{aligned} & 10 \\ & (8.33) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ |
| 2. | The dimensions of Planck's constant. | $\begin{aligned} & \hline 1 \\ & (.83) \end{aligned}$ | $\begin{array}{\|l} 8 \\ (6.66) \end{array}$ | $\begin{array}{\|l} \hline 8 \\ (6.66) \end{array}$ | $\begin{array}{\|l\|} \hline 13 \\ (10.8) \end{array}$ | $\begin{aligned} & 4 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ | $\begin{aligned} & 21 \\ & (17.5) \end{aligned}$ |
| 3. | The only scalar quantity. | $\begin{aligned} & \hline 6 \\ & (5.0) \end{aligned}$ | $\begin{array}{\|l} \hline 4 \\ (3.33) \end{array}$ | $\begin{array}{\|l\|} \hline 5 \\ (4.16) \end{array}$ | $\begin{array}{\|l\|} \hline 15 \\ (12.5) \end{array}$ | $\begin{aligned} & \hline 15 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ | $\begin{aligned} & \hline 3 \\ & (2.5) \end{aligned}$ | $\begin{aligned} & 5 \\ & (4.16) \end{aligned}$ |
| 4. | Not a unit of length. | $\begin{array}{\|l\|} \hline 7 \\ (6.8) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 5 \\ (4.6) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (8.33) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 5 \\ (4.16) \end{array}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{aligned} & \hline 10 \\ & (8.33) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ |
| 5. | The dimensional | $\begin{aligned} & \hline 7 \\ & (6.86) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 9 \\ (7.5) \end{array}$ | $\begin{array}{\|l\|} \hline 7 \\ (6.86) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 7 \\ (6.86) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 8 \\ (6.66) \\ \hline \end{array}$ | $\begin{aligned} & \hline 3 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 4 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 15 \\ & (3.33) \end{aligned}$ |


|  | formula of work. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6. | The quantity does not have dimensional formula. | $\begin{array}{\|l\|} \hline 7 \\ (6.86) \end{array}$ | $\begin{array}{\|l\|} \hline 5 \\ (4.16) \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 10 \\ & (10.83) \end{aligned}$ | $\begin{aligned} & 5 \\ & (4.16) \end{aligned}$ | $\begin{array}{\|l} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 10 \\ & (10.83) \end{aligned}$ | $\begin{aligned} & \hline 7 \\ & (6.86) \end{aligned}$ |
| 7. | Acceleration is the rate of change. | $\begin{array}{\|l\|} \hline 7 \\ (6.86) \end{array}$ | $\begin{array}{\|l} \hline 5 \\ (4.16) \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 10 \\ & (10.83) \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (4.16) \end{aligned}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{aligned} & 10 \\ & (10.83) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ |
| 8. | Body is accelerated | $\begin{array}{\|l\|} \hline 1 \\ (.83) \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.6) \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 13 \\ & 10.83 \end{aligned}$ | $\begin{aligned} & 4 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ | $\begin{aligned} & 21 \\ & 17.5 \end{aligned}$ |
| 9. | Slope of $x$-t graph for uniform motion. | $\begin{aligned} & 6 \\ & (5.0) \end{aligned}$ | $\begin{array}{\|l} 4 \\ (3.33) \end{array}$ | $\begin{array}{\|l\|} \hline 5 \\ (4.16) \end{array}$ | $\begin{array}{\|l\|} \hline 15 \\ (12.5) \end{array}$ | $\begin{aligned} & 15 \\ & (12.5) \end{aligned}$ | $\begin{aligned} & 7 \\ & (6.86) \end{aligned}$ | $\begin{aligned} & 3 \\ & (2.5) \end{aligned}$ | $\begin{aligned} & 5 \\ & (4.16) \end{aligned}$ |
| 10. | Not a unit of time. | $\begin{array}{\|l} \hline 7 \\ (6.86) \end{array}$ | $\begin{array}{\|l\|} \hline 9 \\ (7.5) \end{array}$ | $\begin{array}{\|l\|} \hline 7 \\ (6.86) \end{array}$ | $\begin{aligned} & \hline 7 \\ & (6.86) \end{aligned}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & \hline 3 \\ & (2.5) \end{aligned}$ | $\begin{aligned} & 4 \\ & (3.33) \end{aligned}$ | $\begin{aligned} & 15 \\ & (12.5) \end{aligned}$ |
| 11. | Speedometer is an automobile which measures. | $\begin{aligned} & \hline 5 \\ & (4.16) \end{aligned}$ | $\begin{array}{\|l} \hline 8 \\ (6.66) \end{array}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & \hline 9 \\ & (7.5) \end{aligned}$ | $\begin{aligned} & \hline 6 \\ & (5.0) \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & (3.3) \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (4.16) \end{aligned}$ | $\begin{aligned} & 15 \\ & (12.5) \end{aligned}$ |
| 12. | Mass of 0.5 moles of Ozone molecules is. | $\begin{aligned} & \hline 1 \\ & (.83) \end{aligned}$ | $\begin{array}{\|l\|} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & 8 \\ & (6.66) \end{aligned}$ | $\begin{array}{\|l\|} \hline 13 \\ (10.8) \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ (3.3) \end{array}$ | $\begin{array}{\|l} \hline 8 \\ (6.66) \end{array}$ | $\begin{aligned} & \hline 7 \\ & (6.86) \end{aligned}$ | $\begin{aligned} & \hline 21 \\ & (17.5) \end{aligned}$ |

The data in table no 1results revealed that some of the parameters, Suitable unit for Gravitational constant G, Not a unit of length, The quantity does not have dimensional formula, Acceleration is the rate of change 6.8 percent boy were given correct answer with music and 8.33 percent girl were given wrong answer with music listener and 6.66 percent boy were given wrong answer and 8.33 percent girl were given right answer with non-music listener of Government School. In the statement, the dimensions of Planck's constant, Body is accelerated, Mass of 0.5 moles of Ozone molecules is, 10.8 percent girl were given wrong answer and 0.83 percent boys were given right
answer . 6.6 percent boy and girl both music listeners were given wrong answer and 6.66 percent boy was given wrong answer. In the parameter, the only scalar quantity, Slope of x-t graph for uniform motion 4.16 percent girl music listener was given right answer and 3.33 percent boy were given wrong answer, 6.86 percent boy non-music listener were given wrong answer and 2.5 percent girl were given right answer of Government School. In the sum of parameters, the dimensional formula of work, not a unit of time, 6.86 percent boy music listener was given right answer and 6.86 percent girl was given wrong answer, 6.66 percent boy non-music listener were given right and 3.33 percent girl were given wrong answer of Government School. In the few parameters, Speedometer is an automobile which measures, 4.16 percent boy were given correct answer and 7.5 percent girl music listener were given wrong answer and 12.5 percent girl were given wrong answer and3.3 percent boy non-music listener were given correct answer of Government School. In these parameters, Law of vector addition which is used for adding more than two vectors is, 6.66 percent boy music listener were given correct answer and 7.5 percent girl were given wrong answer and 8.33 percent boy were given correct answer and 2.5 percent girl were given wrong answer of Government School.

## 6. Conclusion

It can be concluded from the present study that the opinion about Academic Performance of Government School was influenced by the Music /Non-music listeners in which students were studying. Most of the students had same opinion about Academic Performance with Music/Nonmusic through across gender, the opinion varied.

## References

- Pool, M. M., van der Voort, T. H. A., Beentjes, J. W. J., \& Koolstra, C. M. (2000). Background television as an inhibitor of performance on easy and difficult homework assignments. Communication Research, 27, 293-326.
- Pool, M. M., Koolstra, C. M., \& van der Voort T. H. A. (2003). The impact of background radio and television on high school students' homework performance. Journal of Communication, 53(1), 74-87.


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