
Impact of Music on Academic Performance Science Subject of Adolescent's Across Gender

Shahni Poonam¹ Agarwal Shalini²

Student and Assistant Professor

Department of Human Development and Family Studies, School for Home Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow-226025, Uttar Pradesh, India

Abstract

Childhood period is like TABULA RASA means BLANK SLATE. So during this phase the healthier and positive education we provide the children, the same is portrayed in later phase of life. In present time education has become a stressful task and the students uses varied methods to reduce stress and enjoy studies and one way is listening music while studying but it may not true for all. For some music may be disturbing element. Music classes offer many benefits which make them very indispensable. Performance programs enhance a student's sense of self-esteem as well as their social skills. Students become a part of a positive group and organization. Not only do students profit socially from music programs, but they also gain academically. The main objective was to assess the .The research design was descriptive cum exploratory research design in nature. 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. Findings of the study revealed that majority of the female respondents academic performance was better than male's respondents' academic performance of Government and Private schools.

Keywords: Impact, Music, academic Performance, Adolescent, Science Subject.

1. Introduction

Music is a significant part of our lives. People listen to music on the radio at home and in their car; they watch music videos on television or hand held technology; they buy CDs or download music; and they

attend concerts. People also hear music in stores, restaurants, sporting events, and doctors' offices (Schellenbergs et al., 2008). Music is very important to many adolescents and they spend a considerable amount of their time listening to music. One study with N = 2,465 adolescents ages 13 and 14 found that participants listened to music for an average of 2.45 hours per day (North et al., 2000). Clearly, 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, et al 2003). Music has become a personal accompaniment in many teenagers' lives because of the availability and popularity of personal music listening devices. In 2009, Jeffray released the results from the 18th semi-annual survey, "taking stock with teens." The team of researchers surveyed approximately N = 1,200 students, with an

average age of 16.3, in 12 cities across the United States and received an additional N = 10,000 online responses. The results showed that 92% of teenagers reported owning a personal music player. As a result of the popularity of these players, music has become individualized, especially for teenagers. It is also considered one of the influences in the development and identity of adolescents (North & Hargreaves, 1999). However, "What is music? To many, 'music' can only mean the great masters – Beethoven, Debussy, and Mozart. To others, 'music' is Busta Rhymes, Dr. Dre, and Moby" (Levitin, 2006).

Aims and objectives

The aim and objective of the study is to assess about the impact of music on academic performance (science subject) of adolescent studying in government and private schools across gender.

2. Methodology

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.

3. Results and Discussion

Table No 1: Distribution of the respondents according to sex.

a.	Sex	Government (N=60)	Private (N=60)
	Boy	25 (41.67)	21 (35.0)
	Girl	35 (58.33)	39 (65.0)

Table No-1 revealed that more than half 58.33 percent girl respondent were belonging of Government School and only 35.0 percent boy respondent were belonging of Private School. More than half of the girl 65.0 percent respondent were belonging of Private School and 41.67 percent boy respondent were belonging of Government School respectively.

Table No 2: Ho1: There exist no differences between the Academic Performances across Gender.

S.no.	Statements	Gender					
		Boy		Girl		f-value	Sig.
		Mean	Std.	Mean	Std.		
1.	Suitable unit for Gravitational constant G.	.83	.383	.68	.471	3.318	.071
2.	The dimensions of Planck's constant.	.74	.444	.55	.500	4.222	.042
3.	The only scalar quantity is	.80	.401	.65	.481	3.366	.069
4.	Not a unit of length.	.63	.488	.64	.485	.003	.959
5.	The dimensional formula of work.	.83	.322	.62	.488	.457	.230
6.	The value of 20 m/s in	.39	.493	.39	.492	.000	.995

	km/hr.						
7.	The quantity which does not have dimensional formula.	.50	.506	.55	.500	.328	.568
8.	Acceleration is the rate of change.	.61	.493	.61	.492	.000	.995
9.	body is accelerated.	.57	.501	.39	.492	3.475	.065
10.	The slope of x-t graph for uniform motion.	.41	.498	.36	.485	.275	.601
11.	The velocity of one object w.r.t. another object which is at rest or in motion.	.63	.488	.62	.488	.009	.924
12.	This of following is not a unit of time.	.70	.465	.72	.454	.057	.812
13.	A vector which has same magnitude but direction opposite to given vector	.57	.501	.46	.502	1.261	.264
14.	Law of vector addition which is used for adding more than two vectors is.	.46	.504	.50	.503	.212	.646
15.	The following quantities, the one that is not a vector.	.63	.488	.64	.485	0.003	.959
16.	The numerical ratio of displacement to distance.	.57	.501	.59	.494	.099	.753
17.	Two vectors having same initial point.	.50	.506	.55	.500	.328	.568
18.	If $x=l+mt+nt^2$ Where x is in meters and t in sec., then the	.41	.498	.45	.500	.123	.726

	unit of n.						
19.	Speedometer is an automobile which measures.	.59	.498	.57	.499	0.043	.836
20.	Mass of 0.5 moles of Ozone molecules.	.83	.383	.80	.405	.149	.700
21.	When 0.1 g of Hydrogen is burnt in oxygen, the number of water molecules produced.	.80	.401	.70	.460	1.524	.220
22.	According to Dalton's Atomic theory, the smallest particle in which matter could exist is called.	.76	.431	.84	.371	1.076	.302
23.	At STP, 5.6 liters of a gas weights 8 g, it mol. Mass.	.43	.501	.42	.497	.029	.866
24.	Mass of sodium which contains the same no. of atoms as in 6 g of Mg.	.70	.465	.61	.492	.937	.335
25.	The density of a gas was found to be 1.96 g/L at STP. The gas could be.	.70	.465	.58	.497	1.583	.211
26.	At a given temp. And pressure, 14 g of Nitrogen will have the same vol. as 14 g of.	.78	1.332	.66	.476	.504	.479
27.	The equation which indicates Charles's Law.	.70	.465	.68	.471	0.051	.821
28.	At what temperature would the vol. of given mass of a gas at constant pressure be	.83	.383	.65	.481	4.490	0.036

	twice its vol. at zero degree C.						
29.	An ideal gas is obeys.	.63	.488	.70	.460	.668	.415
30.	Not a property of crystalline Solids.	.54	.504	.58	.497	.161	.689
31.	The absolute value of charge on the electron was determined by.	.83	.383	.68	.471	3.318	.071

(P<0.01, Level of NS= Not Significant)

Result depicted in Table No 2 discussed that difference between Gender and Academic Performance of adolescent .Data revealed that only two parameters which is Suitable unit for Gravitational constant G and At what temperature would the vol. of given mass of a gas at constant pressure be twice its vol. at zero degree C was significant .it means null hypothesis was accepted. Results also revealed that majority of the parameters not a unit of length, Value of 20 m/s in km/hr, body is accelerated, velocity of one object wrt another object at rest or in motion and quantity is not a vector, f-value was not significant (0.995). It means that there is significant difference between the Academic Performance across Gender. Hence, the results revealed that f-test was

found Not Significant. It means that there is no significant difference between the Academic Performance across Gender. This means that Null Hypothesis was accepted. This means that Academic Performance may also vary according to the Gender of the respondent.

Conclusion

The aim of the study was to investigate the impact of music on academic performance across gender. The findings of the present study were the students who have participated in music have higher academic performance scores than students who do not participate in music. The result indicated that music female participants had higher academic achievement scores in

science subject more than male participants. Study found that music influenced the academic performance of adolescent and music listener's academic performance was better than non-music listener's academic performance among government and private schools and private school was better than government also. The parents and teachers, in turn, would be more aware of such problems faced by the students. School districts should re-examine policies that prohibit student's use of personal music devices in the classroom .The effects of listening to a variety of genres should be examined since classical music is often utilized, although the genre is not popular with today's youth.

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Author profile

Poonam Shahni is student in department of Human Development and Family Studies. School for Home Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow- 226025, Uttar Pradesh, India. Email- shahnipoonam14@gmail.com.

Assistant Professor Shalini Agarwal is working in department of Human Development and Family Studies. School for Home Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow- 226025, Uttar Pradesh, India. Email- s_gupt@rediffmail.com