

Effect of Musical Training on Leadership, Motivation and Curiosity-Exploration amongst Instrumental Musicians and Non-Musicians

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ABSTRACT

Music is the natural surge in the numinous ocean of the mind. It is the one of the most influential form of art in debt of its own qualities of eccentricity and dynamicity and functions as a medium of studying, pleasure, and entertainment. An effective contribution in listening to and performing music is valuable to everyone throughout the different societies around the globe. The purpose of this study was to analyze the effect of musical training in enhancing social attributes such as leadership, motivation and curiosity-exploration amongst instrumental musicians and non-musicians, where the hypotheses stated that instrumental musicians will show greater tendencies of leadership, motivation and curiosity-exploration. A sample comprising of 40 instrumental musicians (20 male and 20 female) and 40 non-musicians (20 male and 20 female) from the age group 17-35 years were studied using an online version of the questionnaires. The results revealed that musicians showed greater tendency of practicing democratic leadership than non-musicians who preferred authoritarian leadership slightly more, whereas no significant difference was found between the motivational levels and curiosity-exploratory skills of both the groups. Further analysis of the data links the role of environmental factors, socio-economic background and the constant transforming trends for the change in the approaches of both musicians and non-musicians, which in turn also influences their social preferences.

Keywords: *Music, Training, Leadership, Motivation, Curiosity, Exploration, Creativity, Individual Differences*

Music has an immense impact on our everyday lives, it can be relaxing, exciting, joyful and heartbreaking- all at the same time, yet maintaining its unremitting soulful nature. It reverberates our strong emotional feelings, connecting it powerfully with our expressive behavior. It revives innumerable memories and thus, becomes one of the vital reasons for us to be attached with its hypnotic charm.

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Amongst the innumerable aspects which have been related to music in many contexts, there is one thing which is lesser studied and researched. Curiosity is considered one of the major driving forces in human motivation and also plays a crucial role in augmentation and identification of music skills and creativity in an individual. Curiosity has been defined as a requirement, thirst and want for knowledge, and exploration is the process through which one acquires information about the environment and the world. (Edelman, 1997). Both these elements are linked positively with creativity and in a way, are considered the harbingers of innovation and ingenuity.

The universe of music embraces a variety of social psychological concepts and also conveys numerous illustrations of leadership and of individuals cooperating to make extraordinary accomplishments in times of progress. As being what is indicated, it is an important similitude for an individual today to use in understanding his or her authority style and in addition seeing better how leaders can function all the more successfully to accomplish things.

Similarly, motivation and music share a very strong bond. Just as motivation requires a person to put all his concentration and energy in one place, similarly while training in music one is required to enhance his attention and retention abilities to improve performance. In recent studies, it has been found that music plays a crucial role in activating the senses, inspiring finest performances, driving and filling one with enthusiasm and the gaining the power to outshine.

Therefore, concepts of leadership, motivation and curiosity-exploration are intertwined and will be interesting to study together on a given population. In the further chapters, these variables are measured on a sample of instrumental musicians and non-musicians to learn whether musical training has a significant role to play in an individual becoming a leader, being motivated and curiously explorative and creative.

REVIEW OF LITERATURE

The purpose of a study undertaken by Jacobson (2013) was to compare and contrast the decision making abilities, styles of learning and creativity between administrative leaders who were enrolled in public school music program, and those who were not. The sample included 16 executives, out of which 8 had participated in music education program and 8 who did not. Through semi-structured interviews, it was found that the executives who were a part of such programs showed more collaboration and cooperation with team members at work, while the other executives showed more signs of need for adaptability and compromising with others.

A study undertaken by Schnare, MacIntyre and Doucette (2011) examines closely the motivational aspects of one's self-concept. A snowball sample of 204 musicians filled an online survey where they were supposed to explain their three different selves: hoped self, expected self and feared self. The findings interestingly showed that the 'hoped self' category gained themes like success, improvement, social bonding etc., the 'expected self' had a single theme of negative

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expectations, and the 'feared self' had themes related to financial crisis, lack of social bonding, illness, deficiency of knowledge etc. Thus, the balance between these three selves is highly dependent on the level of motivation of the musicians.

A research conducted by Stoeber and Eismann (2007) studies the factors that are associated with perfectionism in young musicians. The sample comprised of 146 trained musicians who completed a test based on facets of perfectionism (including distress, motivation, effort, achievement etc.). It was found that some aspects of perfectionism are highly correlated to intrinsic motivation, high accomplishments and high efforts put in. It was thus, concluded that adverse response to inadequacy is definitely unhealthy, and positive responses resulted in higher motivation and higher striving for excellence.

A research conducted by Rossing & Long (1981), examined the relative relationship of curiosity provoked by surprise and the longing to know all the more about psychological constructs. The specimen comprised of 79 volunteers from both nighttime credit classes and non-credit proceeding with training classes running in age from 21 to 52. A huge positive relationship was seen between perceived knowledge and desire for information, however the positive relationship between surprise and yearning for learning was not measurably significant. Results were, be that as it may, steady with the dispute that interest adds to the inspiration got from perceived value of data. The significance of further research was focused.

METHODS

Purpose of the study

The purpose of this research is to compare and contrast the qualities of leadership, motivation and curiosity-exploration amongst instrumental musicians and non-musicians, and how does it impact the overall personality development and enhancement of an individual who has received musical training versus an individual who has never been musically trained. The primary objective of the study is to study the difference between instrumental musicians and non-musicians in terms of leadership, motivation and curiosity-exploration.

Participants

○ Instrumental musicians

Individuals who have received training in classical or western music, for at least a year, must know how to play at least one musical instrument, must have participated in recitals, accompaniments, have been a member of an orchestra, band or other musical groups. They can be both males and females and can belong to other professions as well. Individuals trained in vocals will not be considered for this category. The age group of the instrumental musicians must be between 17 – 35 years.

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○ Non-musicians

Individuals who have never received any musical training of any kind, have never participated in any musical activity and do not know how to play any musical instrument. These individuals can be both male and female and can belong to any profession. The age group of non-musicians must be between 17 – 30 years of age.

○ Sample size

The size of the sample considered appropriate for this study is:

VARIABLES	INSTRUMENTAL MUSICIANS (N ₁)	NON-MUSICIANS (N ₂)
Leadership	40	40
Motivation	40	40
Curiosity-Exploration	40	40

Description of the tool

The following tools would be used to assess the qualities of leadership, motivation and curiosity-exploration respectively:

1. **Leadership Preference Scale by L.I. Bhushan (1969)**
2. **Achievement Motivation Inventory by J.M. Muthee & Immanuel Thomas (2009)**
3. **Curiosity and Exploration Inventory II by Kashdan, Rose, & Fincham (2009)**
- 4.

RESEARCH DESIGN

The research design outlined for this particular study is Ex Post Facto research design because the variables selected for assessment cannot be manipulated and the purpose is to evaluate the already existing qualities of an individual's personality. Through this research design, attempts would be made to explain a consequence (better leadership, motivation and creative thinking) based on antecedents conditions (musical training). It would determine the influence of one variable on another variable and test the claim that instrumental musicians possess better leadership qualities, increased motivation and better creative thinking than non-musicians, using statistical hypothesis testing techniques.

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RESULTS

Table 1

Mean and S.D. values

TESTED VARIABLES		N	Mean	S.D.
M_TOTAL	Musician	39	88.0000	12.34589
	Non musician	39	91.5897	14.49813
CEI_TOTAL	Musician	39	39.2051	3.19687
	Non musician	39	38.2564	5.44696
L_AUTHO	Musician	39	51.2308	6.37207
	Non musician	39	49.9231	7.75406
L_DEMO	Musician	39	59.3077	5.92121
	Non musician	39	54.8718	9.23147
L_TOTAL	Musician	39	110.5385	8.68103
	Non musician	39	104.7949	14.14619

Note. Both the musician and the non-musician groups comprise of 39 individuals in total, the mean and standard deviation of which have been shown above. Also note that the leadership variable comprises of two distinct styles of leadership; Democratic (L_DEMO) and Authoritarian (L_AUTHO).

Table 2

Statistical analysis of the data

Tested variables		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
M_TOTAL	Equal variances assumed	-1.177	76	.243
	Equal variances not assumed	-1.177	74.118	.243
CEI_TOTAL	Equal variances assumed	.938	76	.351
	Equal variances not assumed	.938	61.402	.352
L_AUTHO	Equal variances assumed	.814	76	.418
	Equal variances not assumed	.814	73.249	.418
L_DEMO	Equal variances assumed	2.526	76	.014
	Equal variances not assumed	2.526	64.741	.014
L_TOTAL	Equal variances assumed	2.161	76	.034
	Equal variances not assumed	2.161	63.066	.034

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Note. The table above shows the p value obtained from the two tailed t-test between the two groups of musicians and non-musicians, for all the three variables, where M stands for Motivation; CEI, Curiosity and Exploration and L, Leadership which comprises of two styles of leadership- Democratic (L_DEMO) and Authoritarian (L_AUTHO)

Figure 1. Mean and S.D. Values of Motivation

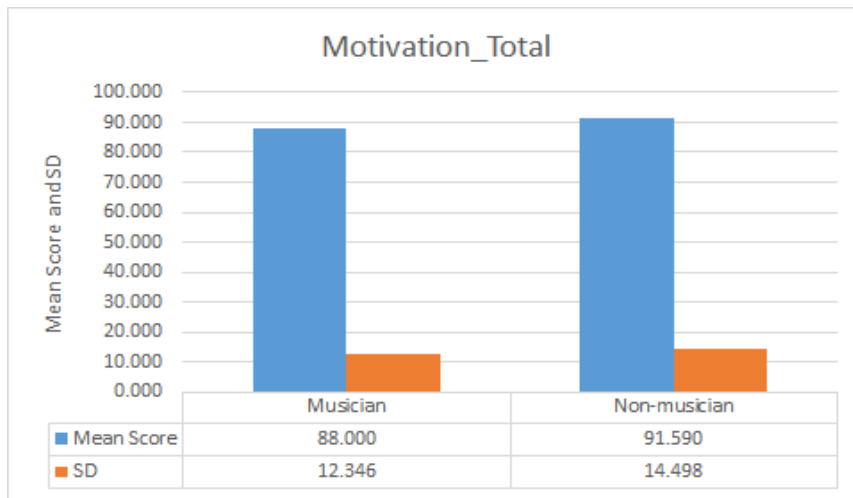


Figure 1 represents the mean scores of the two sample groups for the variable motivation (M),

Figure 2. Mean and S.D. Values of Curiosity-Exploration

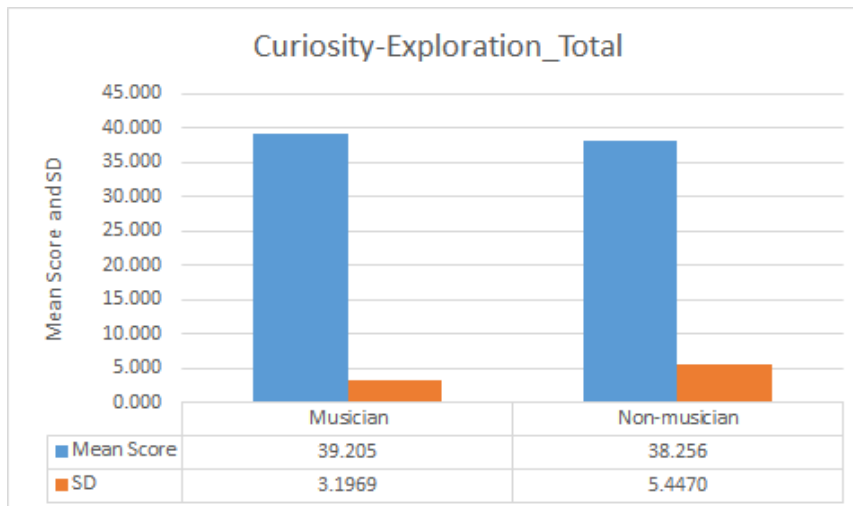


Figure 2 represents the mean scores and S.D. of the two sample groups for the variable Curiosity-Exploration (CEI)

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Figure 3. Mean and S.D. Values of Authoritarian Leadership

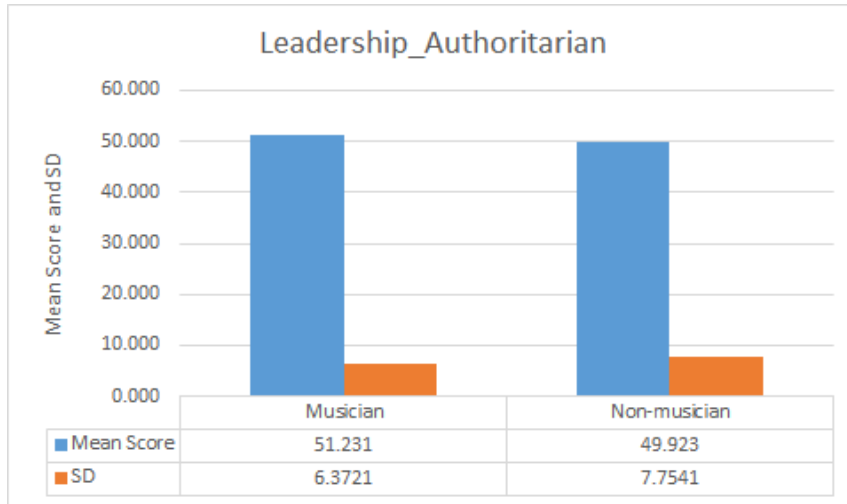


Figure 3 represents the mean scores and S.D. of the two sample groups for the variable Authoritarian style of leadership (L_AUTHO)

Figure 4. Mean and S.D. Values of Democratic Leadership

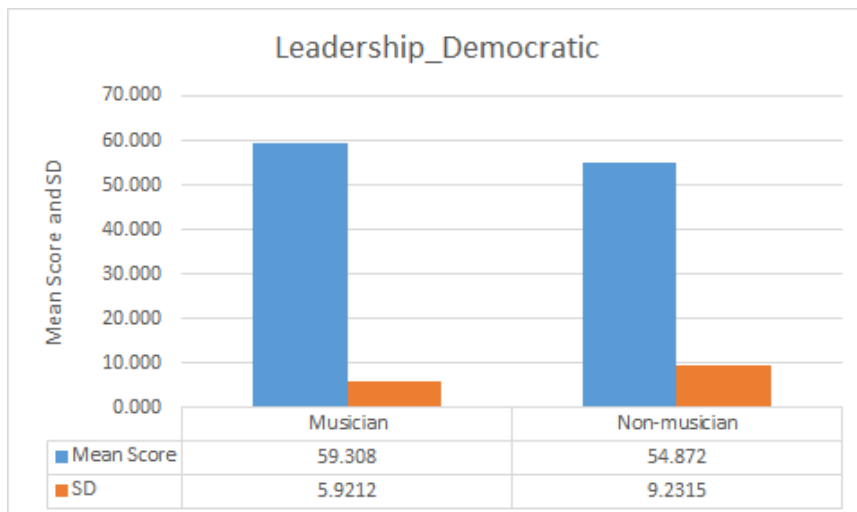


Figure 4 represents the mean scores and S.D. of the two sample groups for the variable Democratic style of leadership (L_DEMO)

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Figure 5. Mean and S.D. Values of Leadership (Combined)

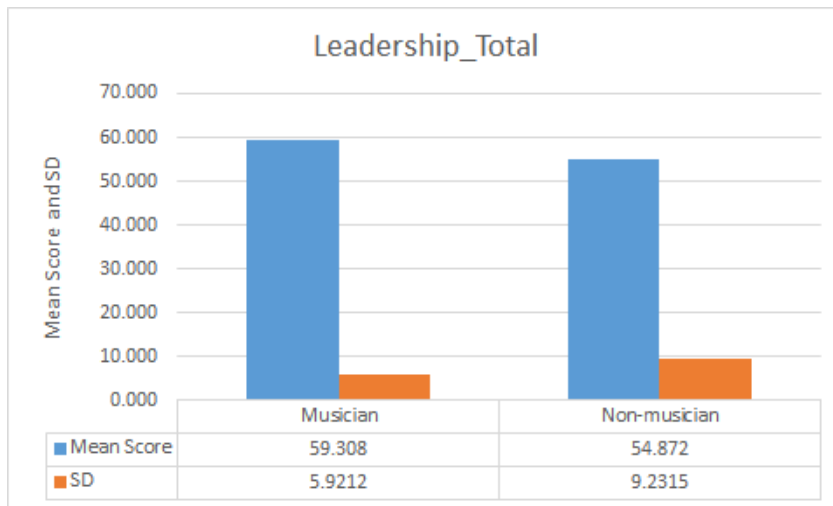


Figure 5 represents the mean scores and S.D. of the two sample groups for the variable Leadership (L_TOTAL), combining both authoritarian and democratic leadership

DISCUSSION

In the past several studies have shown a positive correlation between music and an individual's personality. It has been proved on numerous occasions that musical training does lead to better leadership ability, increased motivation and greater curiosity and exploratory skills. Studies conducted by Jacobson (2013), Woody (2011) and Kashdan et al (2010) prove that the symphonic melodies have the ability to wind down gale like mental disturbances and reinstating the mind's quietude. The tuneful congruence of tranquility and attentiveness is something which music brings with it as a reward.

The present study aimed at studying the role of musical training in leadership, motivation and curiosity-exploration amongst instrumental musicians and non-musicians. The sample of the study comprised of 80 respondents (40 instrumental musicians and 40 non-musicians). T-test was conducted to measure the significant difference between the three variables amongst the two sample groups.

According to the results, except for the variable leadership, non-musicians have scored almost as much as the musicians, proving that even in the absence of any kind of musical training they are still as motivated and are equally curious and explorative as instrumental musicians, which was the assumption in the first place.

For more specificity, Table 1 shows the mean and S.D. values of both the sample groups in all the tested variables. It is evident that the difference between the values of both the groups

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is not very large. In the Motivation (M) category it can be seen that non-musicians have a slightly higher mean of 91.5897 in comparison to the mean of musicians which is 88. But the case is reversed with the remaining variables. In CEI and L_TOTAL musicians have obtained mean scores marginally higher than the non-musicians. It can also be noted that according to the mean scores, more musicians preferred the Democratic style of leadership (L_DEMO) and non-musicians preferred the Authoritarian style of leadership (L_AUTHO).

In the graphical representations further (Figure 1-5) the differences between the mean and S.D. values of musicians and non-musicians in each variable is distinctly shown.

In Table 2, since both CEI and L_TOTAL were significant, their p values of the 'equal variances not assumed' were considered. Which means the p value taken into consideration for M is 0.243, for CEI is 0.352 and for L_TOTAL is 0.034. The two styles of leadership L_AUTHO and L_DEMO were also significant individually, hence their p values considered are 0.418 and 0.014 respectively.

This clearly proves that on the 2 tailed test of significance, only L_TOTAL was found to be significant and accepting the hypotheses stating that there will be a difference between instrumental musicians and non-musicians in terms of leadership. The hypotheses for M and CEI is hence, not proved, stating that there is no difference between instrumental musicians and non-musicians in terms of motivation and curiosity-exploration.

It is interesting to note that the out of all the three variables, researches over the years have shown curiosity-exploration to be higher in musicians as compared to non-musicians, however it is contrary to the results of this study. In fact, the least expected variable i.e., leadership significantly turned out to be in favor of the musicians. After having a general conversation with a few instrumental musicians, it was pretty evident that motivation did not come to them as naturally as music does, and it neither came because of music.

A paper published by Hargreaves et al (2002) talks about the importance of musical identities and how it is explained through psychological constructs. The authors talk about the significance of music psychologists and how they should focus on the numerous ways in which we engage with music and its underlying influence on an individual's behavior. According to them, psychologists today have ignored the social aspects of a musician's personality and emphasis should be given to a concentrated study on the social psychology of music. (Hargreaves and North, 1997).

In regard to this study, similar reasons can be given which led to the resultant data. Firstly, the restricted sample size may be a major contributor in the disagreement with the hypotheses. A larger sample size represents a larger population of the society, hence the results may have been different in that case. Secondly, researches conducted almost two decades ago do claim that musical training plays a crucial role in enhancing a person's creativity and curiosity

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and increases their motivation level. But the trends have changed since then. Right from the expansion and invention of new genres to listening, creating and performing music, this industry has witnessed revolutionary transformation. The method and style of learning has also undergone various modifications which also plays a major role in the early development of one's social personality.

For instance, there is no longer the compulsion of creating a group of musicians to compose and perform music, one can simply work individually and find sources on the internet to promote their own talent. This somehow decreases the motivation to seek out for more authentic knowledge and people. The advent of modern technology has in a way made us less social, physically, and has had an impact on the development of various social skills.

In a research conducted by Doyle (2012), it was found that a music educator's socio-economic background, knowledge and administrative support has a crucial role to play in meeting the expectations of their students. For the students, that educator becomes the role model who motivates them and most often they adapt and practice similar ideologies and opinions as their teacher does. Thus, from whom one is receiving formal training in music is also essential in determining one's social preferences.

Another significant and more logical explanation is the difference in the cultural population. Researches taken as references for this study have been conducted on a foreign population, whereas the participants of this study have been Indians. Therefore, variances in the result can be expected. One's culture, traditions, family background, values, customs, societal norms etc. have a vital part to play in shaping an individual's attitude and preferences in life. Comparing the Indian society with others shows huge divergence in a person's approach towards musical training and is decisive of whether it affects the social facets of their personality or not.

This leads to another very important area of discussion; difference in the Indian education system and abroad. The sample for this study comprised of university students from diverse backgrounds and qualifications. Despite Indian education system being appreciated for producing marvels in most fields, there are still loopholes which give way to the thought that could this type of system inhibit the developing skills of an individual, including musical skills?

According to blogger Siddharth Prakash (2010), the patronage system of the ancient times, where teachers devoted all their time and attention in the development of their students, is not practiced these days and is beyond reach for the teachers to spoon-feed the students. Owing to this, the successful addition of music in the Indian education system failed to take place. Restriction of music education to one class per week, negligible allocation of funds for better music programs and equipment, the elemental belief that music is 'just for enjoyment' and more concerns for intense academic quest adds to the gloomy picture of music education in Indian schools.

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Inadequate musical education and training in school can stunt the growth of a developing child and may overlook the prospects of building a potential career in the music industry. Other essential factors which could have contributed in the results can be the conditions in which the participants had filled the questionnaires, their physical and mental health, environmental conditions or the length and duration of the tests.

Hence, owing to the probable causes mentioned above, the results of this study can be justified on the basis of changing trends, thinking pattern, diversity in backgrounds and individual differences.

CONCLUSION

In the context of cognitive dexterity, music has definitely played a significant role in highlighting its own relevance in improving motor, visual-spatial, auditory and information processing abilities in an individual.

Being a significant factor in enhanced cognitive functions, music has also proved to be extremely vital in augmenting a person's social life and boosting his/her personality. In the recent researches it has been found that on the 'Big Five Personality Factor Scale', group of creative participants scored more than the group of non-creative participants in the five dimensions extraversion, neuroticism, agreeableness, openness and conscientiousness (Pavitra, Chandrashekhar and Choudhury, 2007).

The aim of this study was to compare and contrast the qualities of leadership, motivation and curiosity-exploration amongst instrumental musicians and non-musicians, and how does it impact the overall personality development and enhancement of an individual who has received musical training versus an individual who has never been musically trained.

FINDINGS

- Despite earlier researches proving that musicians have showed more innovativeness, fluency, curiosity, have showed slightly better leadership abilities and have higher motivation due to service and self-pleasure motive, this study yielded opposing results.
- There was no significant difference found between instrumental musicians and non-musicians in terms of motivation and curiosity-exploration.
- Though the study also revealed that there was a significant difference in terms of leadership, which accepted the hypotheses that instrumental musicians possess marginally higher democratic leadership qualities than non-musicians who believed more in authoritarian style of leadership.

FURTHER SUGGESTIONS

- A more qualitative study comprising of semi-structured interviews and natural observations should be conducted
- Interpretation of data on the basis of comparison between male and female instrumental musicians and non-musicians should be done
- There is a need to study other innovative categories like cinema performers, dramatists, painters, sculptors and architects and to examine them and their elements closely
- It would be beneficial learning about the creative groups who take innovative work as the only income earning option through it and studying whether they show any signs of psychopathology having co-morbidity with different aspects of personality

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