Examining the effect of music on students' academic achievement

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Abstract

Using music is one of the most effective methods in increasing the level of genius, knowledge and mental power. Music significantly affects our thinking and learning type, so that because of this effect, significant changes occur in the people's lives. A proper way to increase the learning rate is music. People are trained by music, so their brain grows faster. Thus, we tried to find a way for more interaction of music with students and to systematize the status of music in academic places by stating the benefits of music concerning thinking power and creating a sense of tranquility, identifying objective academic samples, and distinguishing and redefining positivist music against irritating sounds imposed on the young academic generation as music by relying on previous theories and studies. Considering the status of the academics in society, one can state that the constructive attitude and interaction of this stratum with music would enhance the position of real artists. According to the results, the type and amount of music in culture and social norms, religion and religious beliefs, talents and genetic factors, external factors and family nurture, type, time and location of musical sounds all have positive effects on students' learning.Abu nasr Farabi and Albert Einstein are two of the brightest faces of human genius, including string instrumental musicians. And, according to their own narratives, one of the reasons for the popularity of their intelligence, was that they were playing recurrence, tar and violin. These two find solutions to complex equations and problems at the time of their improvisation. When Thomas Jefferson was not able to find the correct phrases and sentences in the Declaration of Independence, he did the violin performances and read the appropriate sentences. Sir Canyon Doyle, the UK's author of the super-smart character, Sherlock Holmes, whenever this character sought to solve a complicated puzzle, she was playing violin.

The great men of history from Shakespeare to Napoleon have been playing music on this basis, and this is a sign that these people, even unconsciously, after hearing or playing music, have different situations in the soul and then in their minds that originate in the brain; As a phenomenon has the side of repeatability and the creation of the same results, one of the basic principles of science in the nature of science lies in its nature.Music as a complete and separate educational program can have a significant positive effect on the learning process of young people. Mary Jane Collete, head of the Cultural-Arts Department of the New York State School of Professional Education and Development, says:

A very good mindset of music education not only makes learning the music that is worthwhile, but also gives learners the opportunity to listen, respond, see, touch, and move. Also, teaching musical skills, performance, and theory provides valuable tools that help learn the analysis, composition, and evaluation skills.

Many people want to listen to music when they work or study. The opinion of the scholars is that music makes it possible to focus on what I do. Of course one can assume that there are people who listen to music because they can not focus on their work.While there are many reasons to listen to music at work or study, but see if the music actually affects productivity?

We know that music can change our mood. In movies, music is used to create a particular mood and mood in a scene. A lot of the time, you do not care much about playing music, but you're reacting heavily to the weather. Can you use music to get in good weather? Investigations seem to confirm this statement.

For example, in a test of which 75 of the 256 participating workers were asked to work and listen for their headphones for four weeks, it turned out that their productivity increased by 10% compared to others. Other similar research by researchers from the University of Elvenwis showed an increase in returns of 6.3 percent.

Keywords: music, academic achievement, students

Introduction

Some phenomena of the nature of our world are so intertwined with the nature of human that prevent us from thinking about them. For instance, breathing or drinking water, and so on of the sounds is the same, but the common point in all these phenomena are the energies that penetrate through a regular system within our body and then mentality. Many phenomena in our world have multiple uses. As we stay alive by eating and drinking and enjoy them and in proportion to the type and amount of food and drink we deal with other affairs of life, by hearing the sounds a part of the dynamics of our life is provided. If these voices are in balance, we inevitably reach the peace that provides us with peace and, consequently, we will continue to improve our social activities in the material and psychological spheres. What was stated has primary and secondary aspects, the first of which is the first material and human needs of the human being and the second aspect is their applied aspect.

Throughout history, art has been a device for adaptation, flexibility, creativity, love, friendship and peace. Among arts, given its energizing, mobility, abstraction and intrinsic attractiveness, music is so enchanting to humankind. There are different forms of music, each of which has different effects on the mind and body. Given these effect, music can be used for therapeutic purposes in the field of counseling and psychotherapy (Zadeh Mohammadi, 2009).

Music has a biological and physiological relationship with human brain - rhythm, biological stimulus, and pleasurable melody create cheer and fun. Thus, the smallest rhythmic action and harmonic sound stimulate soul and body, but music is an emotional need more than anything is. Music stimulates the emotional system (limbic) of the brain quickly leading to emotional stimulation and projection of inner states, and in many moments of life when speech is not responsive, it can create sympathy and empathy and, most importantly, expand the feelings (Zadeh Mohammadi, 2009).Overall, there are two types of music therapies as active and inactive according to the activity of the participants. Active music therapy involves singing, playing, or composing. Inactive music therapy involves listening to music. This music can be listening to recorded or live music. The point about the passive music is that the participants should enjoy the music they want (Kenyon, 2007).

Many people want to listen to music when they work or study. Scholars believe that music makes us focus better on what we do. However, one can assume that there are people who listen to music not to be able to focus on their work. From the time human can hear i.e. from fetus on one hand man receives the proportions in the melody and, on the other hand, the ratios between the musical compositions, and experiences the correct ratio. This is a kind of mathematical practice by ear from the beginning to the end of life (Beizaei, 2001).

Although there are many reasons to listen to music at workplace or study, let us see if music actually affects productivity. We know that music can change our mood. In movies, the music is used to create a particular mood in a scene. In so many cases, we greatly react to the ambience it creates regardless of the music being played. Can you use music to get into the mood of good work efficiency?

Studies seem to confirm this statement. For instance, in an experiment where 75 of the 256 participating workers were asked to work and listen to their headphones for four weeks, it was found that their productivity increased by 10% compared to others. Other similar studies by researchers from Elvenwis University showed an increase of 6.3%. Music has great effects on thinking and learning forms, so that following the changes significant changes are created in the lives of people.A proper way to increase learning rate is music. People are trained by music and their brain grows faster due to that. When properly performed, some music can have positive effects on people's learning and attitudes. Music is a powerful means and when we focus on its meaning, it can have significant positive and negative effects on our lives. Experts call putting together the puzzle pieces abstract reasoning. By practicing music, the person practices and uses such abstract skills in mathematics or some other tasks that one has to draw in mind. According to the progress made during this age, music can be so useful. When music is played in the classrooms and the main curriculum is taught alongside, it can be a useful tool in understanding. It seems logical to assume that music is most helpful in helping people with the least tendency to specific jobs or special activities, but music changes this idea.

Listening is a complex and active process including attention, listening, selecting and organizing information, interpreting, answering and remembering. Listening in addition to hearing involves

interpreting and answering other messages as well. Listening is a biological process and happens when the sound waves hit ear curtain (Wood, Translated by Firouzbakht, 2000).

Using music as an abstract art is a motivating factor that promotes creativity, social skills and intellectual order, and ultimately leads to increased efficiency, productivity and efficacy (Hasanlou & Mahmoudi, 2009). Social skills are the ability to interact with others in a particular social context, so that it is acceptable and valuable in the community norm.

Musicians have considered levels of cognition and psychology of music as the common languages of the world that has its own specific areas in the brain (Kaffy, McAllister and Silver, 2007).In the brains of normal people, PLanum Temporal (a part of the brain located in the temporal lobes of the brain) is larger on the left side. In musicians, this part is remarkably significant. According to the researchers, this section plays a role not only in the dialect, but also in the diagnosis and analysis of the voices, which is why the musicians differ in their ability to distinguish pitch of the sounds and voices. In addition, neurological researchers have evidence of changes in electroencephalography and MRI of the people who have learnt music. Overall, the left hemisphere is more sensitive to sound processes such as melodies, whereas in the right hemisphere speed processes such as rhythm are analyzed. With advance in age, these hemispheres develop specifically. Moreover, the increase in spatial visualization ability, motor-visual improvement, increase in reading and mathematical comprehension, and enhancing memory and verbal stimulation are among these cases. With these physical changes in the brain, it is assumed that music affects the three main functions of the brain: learning, thinking and recalling.The recent studies on the youth stress the youth have stressed the importance and role of music in the youth lives. Besides great significance in the youth lives, music is one of their major entertainments (Scheferz, 2008).Among the main factors of sustainable and comprehensive development is the specific attention to the young population, especially students as the stratum with thought. Developing students' talents and capabilities in line with the needs and developments of society can bring about the realization of the defined goals of a nation. Undoubtedly, different and various components affect the university and the student both quantitatively and qualitatively, so that we constantly face a new image and definition of university and student. The widespread industrial, economic, social and cultural changes at the

national, regional and global levels make the higher education system more effective in coordinating the new needs and the university (Hatami, 2009).As the academic environment is a place based on the power of reason and thought and the sense of scientific participation with the mission of advancing the community towards a better world, the higher focus of the brain and brining about a sense of relaxation to reduce the consequences of life for students and the relevant authorities are vital. Hence, the university's output will be a higher quality product and will lead to better macro-national policies.

Importance and necessity of research

Using music is one of the most effective ways to increase the level of genius, consciousness and mental power. Music has a great influence on thinking and type of learning, as a consequence of this effect, there is a significant change in the lives of individuals. But are all human beings proud? Statistics do not show this. In fact, most human beings are not inherently talented. Most people are almost average. Perhaps numbers are a little bit higher or lower than this limit. In general, people are trying to learn and want to know more about the world around them and become more aware. Some people learn faster and better, and this is the speed of learning that separates the genius from the middle class in terms of learning. Geniuses do not have trouble learning when they learn very soon, but others need help. A good way to increase the speed of learning is music. People are trained to learn, and because of that, their brain grows faster. Some music, when properly executed, can have positive effects on one's own learning and attitudes. Music is a powerful tool, and when it comes to its meaning, it can have a significant positive and negative impact on our lives. Experts put together puzzle pieces together as abstract reasoning. By practicing music, he practices and uses such abstract skills in mathematics or some other work that one has to draw them in mind. According to the progress made during this period, music can be very useful. When music is taught in classrooms and is taught alongside that curriculum, it will be a useful tool in understanding. It seems reasonable to pretend that music is most helpful to people with the least tendency to specific jobs or special activities, but music changes this idea. Music gives the listener a positive motive and attitude. It can be made easier by listening to the delicious music in the environment and during difficult work. In some cases,

music may not increase the positive attitude, but it will make the work easier and easier. The context of the field can be useful when people think, learn, and work, but music should be well executed. It is easy to understand that rich music should be calm, because if it is not, it will distract the mind and it is logical to conclude that if music is useful, it can be taller than music, but not too tall, because any music that is excessive Lacking enough will make learning and thinking harder.The listener is superior to music because the main purpose of the music is to influence the behavior and attitudes of the person. If a person listens to ghana music, while this music is upsetting her, this kind of music can not help her think that it's too hard for the mind to overcome it. When a person listens to the music of the background, it's important that music It is familiar to him and loves him, and also to comfort him. For many years, the musical piece was created exclusively for the purpose of relaxation and stress reduction. Studies have shown that Relaxation or Relaxation music reduces tensions, but listening to selective music has a better and more beneficial effect. Another study was conducted on 205 people to show the effects of minor and major music. Minor music (a small step) gives a person a sense of humor, grief and despair, and major music (the big step) often gives a feeling of happiness, cheerfulness, pleasure and intelligence to the person.

Effect on motor function

The nerves that control the motion function pass through the corpus callosum (the central collar of the neural fibers that connects the two hemispheres of the brain). Research has shown that Corpus Callosum is significantly larger in musicians than non-musicians, and for those who have begun learning for childhood, this part of the brain is 10 to 15 percent thicker than non-musicians. It plays an accurate motor coordination mechanism between the two hands.

Impact on learning, thinking and recall

In the brains of normal people, PLanum Temporal (a part of the brain that is located in the temporal lobes of the brain) is on the left side of the larger right side. In musicians, this section is remarkably significant. The researchers believe this section not only plays a role in the dialect, but also in the diagnosis and analysis of the voices, which is why the musicians differ in their ability to distinguish between sounds and voices. In addition, neurological researchers have evidence of changes in the brain barrier And MRI in people who learn music. In general, the left

hemisphere is more sensitive to sound processes, such as melodies, whereas in the right hemisphere speed processes such as rhythm are analyzed. As age grows, these hemispheres develop specifically. In addition, increasing ability in spatial visualization, improving motor-visual vision, increasing reading and mathematical comprehension, and enhancing memory and verbal stimulation are among these. With these physical changes in the brain, it is believed that music is based on three main functions of the brain: learning, thinking And recalling the impact.

Background research

A)) Title of the project: The effect of music on cognitive development and abstract thinking
Researcher: Rossher // Shaw // Kai Location and time of the project: England / Edinburgh 1995
Abstract: First, all spatial intelligence tests were performed and then 32 of them listened to the 4,448 piano sonatas for 10 minutes. Of the 47 other students who formed the control group, a group listened to the tape of muscle relaxation guidelines for ten minutes for ten minutes, and the other group spent the same time in silence. In the test, which was again performed from the three groups, there was a significant increase in the spatial intelligence scores of all the students who listened to music, although its sustainability was only 10 to 15 minutes after exposure to the work "with music. Rashr and colleagues called this increased spatial ability Mozart's work.

B)) Title of the project: The effect of family and demographic factors on the effect of music on cognitive development
Researcher: Bilharts et al
Location and timing of the project: USA / California 2000
Abstract: The experimental and control groups were selected from three different economic levels of society. As a result, 36 children aged four and five were tested for 30 weeks and 75 minutes per week in children's music education classes and compared with 35 control children selected from kindergartens through the Stanford-Binet Intelligence Test They were The results showed a significant increase in cognitive development and general reasoning and space-time abilities of experimental children in comparison with the control group, which was stronger in children with higher family income.

C)) Title of the project: Impact of music on introverted and outsourcing students

Researcher: Cassidy and McDonald

Location and time of the project: England / Glasgow 2007

Abstract: In 2007, Cassidy and McDonald's musical effects of high-level, negative emotion and low level of stimulus stimulation, positive and positive emotion and day-to-day stimulation on cognitive function of 45 extrovert and introverts, included five cognitive tasks including Quick reminders, free reminders, delayed reminders, time and stroop. They placed 10 participants in each test group, which carried out assignments in four different conditions: high arousal, low arousal, everyday noise and silence. The result of their study showed that extraversals are generally more influenced by the conditions in which there are high, high or high levels of arousal.

Research objectives

Since the academic environment is a mechanism based on the power of reason and thought, and of course the sense of scientific participation, as well as the mission of advancing the community, the goal is towards a better world on its shoulders; therefore, the higher concentration of the brain and the development of a sense of relaxation in order to reduce It is vital for students to live on the rim of life, and of course, the relevant authorities are very vital. The University's output will be a product of higher quality and will lead to more macro-national policies.

Research hypotheses

After comparing the global hypotheses and theories about the special specific hypotheses, the paper is as follows.

A) Culture and social conventions

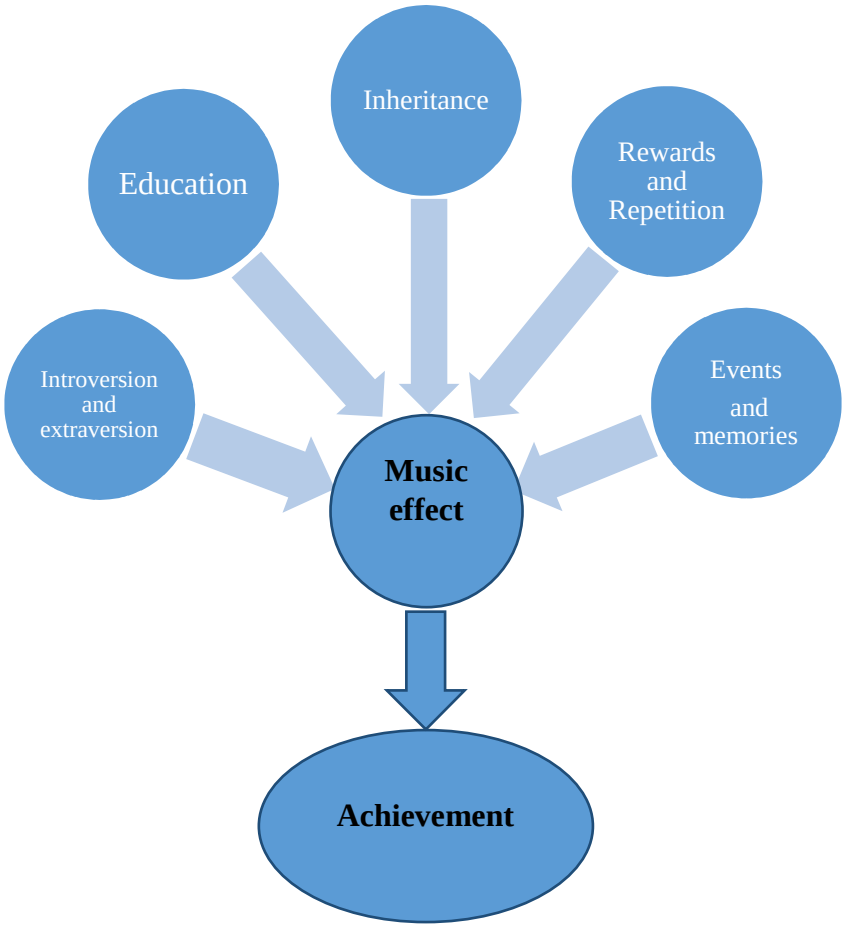
B) Religion and religious beliefs as one of the most important sub-branches of human personality

C) Talent and genetic factors

D) External and familial factors

E) Type, time and location of hearing musical sounds

Hypotheses chart



Theoretical and scientific definition of the variables

1. Inheritance: transferring the rights acquired and the attributes specified in the blood of one person to the descendants (Dictionary: Dehkhoda)

2. Rewards and repetition: according to a person, reward is anything that a person gets for fulfilling the norms approved by the community around him or any activity directly performed by him and considered valuable and the repetition is performing the same action by the person to get the reward again (Pavlov's Stimulus-Response Theory)

3. Effective event and experiences: what someone has undergone with its effects in the mind (Dictionary: Moin)

4. Education and Knowledge: Acquiring in the general sense and gaining everything that adds to human mental and intellectual resources that involves a range from empirical and academic sciences to cognitive and intrinsic sciences (Dictionary: Amid).

5. Introversion and extroversion: introversion means getting energy from inside (through ideas and mental concepts)

Theories related to the research topic:

1. Behavioral theories

This theory itself consists of three subsets of the other theory that will be presented below. Handwriting is a view that behavior must be explained through explicit experiences, not through mental processes. For behaviorists, behavior is what we do and is directly visible, and thoughts, feelings and motivations are not proper subjects for the study of behavior, because they can not be directly observed. The classical theories of theory, the attempt and error, and the conditioning of the actor, are from the behavioral point of view that has chosen this position.

These theories consider learning to build and strengthen the relationship between the stimulus and the response in the human nervous system. From the point of view of the experts, this approach, in the learning process, initially affects the "state or condition" of the learner, then forces him to work, and communicates between the situation or the state and the response, and the learning action takes place.(Baibangard, 2005).

Types of Behavioral theories

A) Classical conditioning theory:

What is renowned for classical, respondent, IVAN PAVLOV or reflection theory is the result of the research of Russian scientist Ivan Petrovich Pavlov, taken at the beginning of the 20th century. The important discovery of Pavlov was that the natural reflections or the first living thing could be expanded by contributing to the conditioning. Reflection refers to the simple relationship between an answer and the stimulus that produces the response by affecting one of its sensory members. According to Pauloff experiments, the following steps are taken to condition the experimental animal (dog):

Stimulants such as food are provided to the animal. This trigger creates a natural and automatic reaction (salivation) in the organism. The stimulant that creates this natural reaction is an unconditional stimulus. The natural and auto reaction of an organism to an unconditional stimulus is an unconditional response.

A neutral stimulus, such as a ringing tone before an unconditional stimulus, is presented to the organism. This neutral stimulant does not cause any response in the organism before conditioning.

After several times the accompaniment of an unconditional stimulus (natural stimulus) with a neutral stimulus, in which the neutral stimulus always precedes the natural stimulus, the neutral stimulus alone secretes the saliva. The organism is said to have been conditioned. In the presence of a neutral stimulus (ringing sound), which is now no longer a conditional stimulus, it responds to the release of saliva. The response of salivary secretion to conditional stimuli is called conditional response.(Seif, 2008).

B) Trial and error theory:

One of Behavioral Theorists is Edward L. Sirndike. He was influenced by physiological psychology and believed that the best learning in humans and other animals was learning through the effort and mistake that he later called learning through "selection and transplantation." In other words, the response or response of the living being in front of the stimulus is due to the establishment of neural communication within it, so that during the learning process, the incorrect answers are gradually reduced and instead the correct answers appear to exist, and in Continued work leads to learning.

Learning in Tharandike's theory is described as the selection or selection of an answer, from among the set of responses of the organism and linking that response to the stimulus's position. For this reason, Thorndike's learning method has been called learning through effort and error.

Thorndike went beyond Paul to show that the stimuli that followed the behavior influenced future behaviors. In a series of experiments, he put the cats in boxes that had to escape to get food. She observed that over time, cats learned to move faster with repetitions of behaviors that would escape, rather than repeating unaffected behaviors. He obtained the following three tests:

B1)) Act of Effect: This law states that if the practice is conducive to a satisfying change in the environment, the likelihood that it will be repeated in similar situations will increase. But if the behavior causes an unpleasant change in the environment, its likelihood of repetition decreases.

B2)) Readiness Act: According to this law, the learner must have grown sufficiently in terms of physical, emotional, and mental growth in order to master the concepts.

B3)) Practice law: Based on the practice of the practice, the more stimulus the satisfactory answer is to follow, the longer the relationship between the stimulus-response is more stable. (Modern educational psychology).

C) Operant conditioning theory:

Another behaviorist was B. F. Skinner, who showed that conditional and reflective behaviors are only a small part of human behaviors. Skinner's work, like that of Thorndike, is based on the relationship between behavior and the consequences. He states that if satisfactory results follow a behavior, that behavior becomes more likely to occur, and if the results are unsatisfactory, the behaviors associated with it do not occur.These satisfactory and unsatisfactory results are called the operant conditioning.

In skinner experiments, mice and pigeons were placed under control in the well-known Skinner box, and their behavioral changes, which resulted from regular changes in the results of those behaviors, were observed. The other actress's name is active behavior because, contrary to the behavior of the respondent, the organism is active in doing this and acts on the environment, action or action. Hence, Skinner has named the actor. Some of the important rules of the theory of factorization are as follows:

C1)) Positive reinforcement: Whenever after an answer, an stimulus enters the environment and that stimulus increases or exits the likelihood of a response, it is said to be a positive booster stimulus.

C2)) Generalization: Generalization is the expansion of the response from the initial stimuli to the similar stimuli and the process in which the response is learned in the presence of a specific stimulus, in other circumstances and in the presence of other stimuli, of the organism. But the distinction prevents inappropriate generalization, which helps the learner to distinguish between a

stimulus and other stimuli, and to know which stimulus should provide an appropriate response and not respond to what stimulus.

C3)) Negative reinforcement: the removal of the trigger from the position, in order to increase the desired behavior, in which case a disturbing trigger is exited or reduced. (Lotfabadi, 2005).

2. Cognitive theories

For cognitive theorists, learning is the acquisition and restructure of cognitive structures, through which the information is processed and stored in memory. They believe that learning is an internal process that may not appear as a direct change in apparent behavior, but appear as abilities in a person and store in his memory that can be used whenever needed (Modern educational psychology).

The experts in this approach consider learning to be due to cognitive, perception, and insight, so that the new learning of the person is combined with his previous cognitive constructs. As learning is an internal and permanent state, and human always searches his living environment and discovering the relationships between phenomena, he develops his cognitive development (educational and nurturing skills)

Types of Cognitive theories:

A) Gestalt learning theory

The founder of Gestalt psychology is the German scientist Max Vertiermer and is meant to be a gestalt, a figure, an idea, or a plan. The meaning of Gestalt in this theory is that the whole of its constituent parts is greater. Namely, the whole has properties or features that are not found in its constituent parts and in many ways determines the characteristics of the components.

Learning in this approach is an insight from the understanding of the learning position as an integral whole and also through the discovery of relationships between the components of the learning position.

According to the theory of Wolfgang Kohler, another theorist of gastropods, learning becomes a time when he can understand the relationship between the components of the learning position as an organized whole and the totality of that position.

According to this theory, how our perception of phenomena is based on several laws or principles, in the name of perceptual organization rules. These laws are inherent in human ability through which one organizes perceptual phenomena. The most important rules of the perceptual organization are:

A1)) Closure or Completion Law: By completing the law, units and forms are incompletely understood as complete units. As long as the person is involved with the problem, his understanding of the situation is not complete, but when the problem is solved, the incomplete part is fully completed and the individual reaches its goal.

A2)) Similarity Act: According to the law of similarity, the same or similar content of the nonsensical material is better perceived and combined together as an interrelated component.

A3)) Proximity Law: Under this rule, phenomena and things that are close together are better understood and easier to learn.

A4)) The law of common ground: With good or common law, the perceptual organization is formed in such a way that a straight line in a straight line and a piece in the circle continues.

A5)) Law of Simplicity: By simplicity or simplicity, we understand phenomena as simplistic.

A6)) Form and field law: According to this law, the properties of ghostly phenomena are clearly and prominently displayed on the land they are found to be. The shape in every field is the same as the gestalt, that is, what is understood and the field is the scene in which the shape appears.

B) The meaning of verbal learning theory

The implication is that David Asubl is an American psychologist. In this theory, cognitive construction is a set of information, concepts, principles, and generalizations that an individual has previously learned in one field of knowledge. Meaning here also plays an important role in the existence of a kind of mental equivalence for learning in the learning of learner cognition.

One is meaningful when it comes to communicating with the material that already exists in the learning of cognitive learning. Similarly, meaningful learning is created through the creation of a link between new content and previously learned content. When learning a new article meaningfully, it captures the cognitive learning of the learner, which is called absorption of the material in the cognitive designation.

In the Azubel methodology, pre-organizers play a major role. The pre-organizer is a set of concepts related to the subject of learning and aims at attracting learner's attention to the main concepts of the subject of learning. Highlights the relationships between the content and relates the new content to what was already learned.

C) Socio-Cognitive Theory

The founder of this theory is Albert Bandura, a Canadian psychologist. He says personal factors (such as beliefs, expectations and attitudes), environmental events (physical and social), and the actions (verbal and practical) of each other interact with each other, and none of these three components can be separated from each other as determinant of human behavior Take into account He called this interactive engagement a cross-determinant. That is, environmental events affect behavior, affect the behavior of the environment, and personal factors affect behavior, and vice versa.

In this theory, it has been said that the learner learns by observing the behavior of others. When the learner observes another person's behavior that the person receives, receives or rewards for doing it, that behavior is learned by the observer. This kind of boost is called boosting succession. Bandura has introduced learning through observation in the following four processes:

C1)) Attention processes: Before something is learned from a pattern or example, that pattern should be taken into consideration, and only what is being observed and learned is learned.

C2)) The process of mediation: To be useful to the information obtained through observation, they must be preserved. According to Bandura, in the process of memorizing, information is stored symbolically and in both visual and verbal forms. Symbols that are stored in visual or imagined form are real saved images of simulated experiences that can be retrieved long after the observational learning and can be applied accordingly.

C3)) The process of reproduction (behavioral production): the process of behavioral production, determines what is learned to what extent they become functional.

C4)) Motivational Process: In Bandura's theory, reinforcement plays two major roles. One is to expect observers to be strengthened if they act like a pattern reinforced for certain activities. Second, it plays the role of a stimulus to transform learning into performance.

The results of examining the hypotheses

Improving the learning ability of the students by music has the following effective elements:

1. They have an artistic family and genetic background i.e. they have the ability of verbal and phonetic association with the past memories.

2. Mild and music silence are more effective for introverts and the music with medium and high rhythms are more effective for extraverts.

3. Education and not necessarily academic one, but the worldview and general knowledge of the individual and the parents have an effective role.

4. They have environmental events and incidents affecting their personal lives or they have experienced social events in adolescence.

5. They have received audiovisual gifts, especially musical ones, as behavioral and academic gifts and thus have repeatedly shown the factor of reinforcement and repetition of success.

6. Music itself directly and indirectly affects the processes of the brain and the pseudobular gland, the sixth sense. This gland, known as the science of tampurale, is used to create the abstract and relaxing feelings that we call the artistic sense. We know a lot.

7. Attention to the gender and class level of individuals in the community can also depend on the degree of impact of music. But one should not ignore the personality trait of individuals as, according to the above studies, extraversion and introversion of individuals also play a major role in choosing the type of music and the percentage of arousal Emotion has people.

8. Another noteworthy issue is the age of people in the face of music, the lower the number, the greater the percent of the sustainability time of the music.

9. on the other hand, based on extra-musical research on memory (short-term and long-term), as well as verbal reasoning, is more effective than other mental aspects, which is very important in reducing the amount of stress and anxiety resulting from the exam. .

10. emphasize that music therapy is to be treated with gestalt therapy in order to increase the amount of arousal from listening music while returning mental information. This is, of course, more effective in treatment methods than normal.

Research Methodology

The method used in this survey is to move the questionnaire into open and closed forms and to be answered by students. Interviewing is a set of systematic and standardized methods for collecting information about individuals, Families or larger collections and is also a way of obtaining information about the views, beliefs, opinions, behaviors or group profiles of members of a statistical society through the conduct of research. It should be noted that the examination of the remaining documents The remnants of the past during research by researchers as well as the accuracy of maple reactions With the same characteristics as the examples studied, the author of the article was the author of the article through the observation process.

Analysis Unit

In this research, individual analysis unit and students of Payame Noor University of Mashhad have been investigated

Statistical population and sample size

The statistical population of this research is the students of Payame Noor University of Mashhad, and the sample size rounded in this study is 360 using the Cochran sampling formula. The population is equal to: ((355/74490363232)).

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N}\left(\frac{z^2 pq}{d^2} - 1\right)}$$

In this formula p and q, the ratio of success and failure is considered to be 0/5.

The value of Zα / 2 at the error level of 0.05 is equal to 1/96.

The value of the d error is also 0.05.

The N value represents the size of the target community

Sampling method and data analysis method

The type of sampling in the current research is proportional to the type of sampling that has been taken according to the statistics from the university, and the selection of the members has been done by observing the gender-specific population by random reference. Also, for analyzing the information and They can be used to describe the abundance tables, faces, meanings, and plotting appropriate charts with the help of SPSS software.

Conclusion

As stated earlier, few studies have been conducted regarding the research subject, i.e. the effect of music on the students' learning, stated in the literature and sources. After examining the studies conducted among students, we conclude that music clearly affects the increase in mental performance and consequently the degree of students' academic learning. However, the important issue here is that this effect is indirect and with some intermediaries. Thus, music creates some mental impulses in the brain, and when these impulses are at the time of learning and studying of the students, they act as encryption codes and take the mind to the relevant mental information faster. In other words, one can call it the quicker creation memories related to time of the study, whose result is a quicker reminder of the subjects studied. However, according to the studies, this is closely connected to the factors such as family and genetic artistic history, introversion and extroversion, worldview and study knowledge of the individuals, certain life events, and, finally, reward and the factor of reinforcement and repetition of behavior. Among the above-mentioned factors, introvert individuals with an artistic genetic background are much more affected by the music for the increase in their learning (positive) compared to others.

References

1. Attarzadeh, Z., Zadeh Mohammadi, A. (2009). Examining the effect of guitar-oriented music therapy and cognitive strategies on reducing the high-risk behaviors of adolescents in correctional center. Proceedings of the 2nd International Congress on Art Therapy in Iran. Tehran: Shahid Beheshti University Press

2. Hatami, P. (2010) Master's Thesis, entitled "Student's Social Health Effects", with emphasis on social networks
3. Beyzai, S. (2001). Music and message. Department of Art Studies, No. 49, Tehran: Art Studies and Research Center.
4. Wood, H. (2000). Interpersonal communication, translation by Firuz Bakhte, Tehran: Mahtab
5. Hasanlou, J., Mahmoudi, N. (2009). Explaining the Art of Music as a Facilitating Facility to Improve the Return of the Blind People, Journal of Music Art, No. 88, p. 21
6. Scheferz, B. (2008) Tehran. New Design, Others, Tehran. Publication of the Nine, translated by: Karmat Allah Rasek, Foundations of Youth Sociology.
7. Biabangard, E. Educational Psychology, Tehran, ed., 2005, first edition, p. 193.
8. Saif, A.A. Modern Nursing Psychology, Tehran, Duran, 2008, Sixth Printing, Pages 121-120.
9. Educational skills, ibid, p. 25.
10. Modern psychology, ibid, p. 131.
11. Lotfabadi, H., Educational Psychology, Tehran, SAMT, 2005, First edition, ibid., p. 233.
12. Modern psychology, ibid, p. 148.
13. Educational skills, ibid, P. 22.
14.Murphy, C, Taft C, &Eckhardt, C. (2007). Anger problem profiles among partner violent men:Differences in clinical presentation and treatment outcome. Journal of Counseling Psychology, 54(2),189-200.
15.Coffey, C.E., McAllister, T.W., & Silver, J.M. (2007). Guide to Neuropsychiatric Therapeutics, First edition, Philadelphia: Lippincott Williams & Wilkins.
16. Bilhartz, T.D., Bruhn, R.A., & Olson, J.E. (2000). The effect ofearly music training on child cognitive development. Journal of Applied Developmental Psychology, 20, 615-636.
17. Stansell, J. W. (2005). The use of music for learninglanguages: a review of literature
18. Medina, S. L. (2003). Acquisition of vocabulary through story-songs. Mextesol journal, 26(1)
19. Speh, A. J., & Ahramjian, S. D. (2010). Teaching without a common language:

synchronicities between the pedagogies of music and second language acquisition. Bulletin of the Transilvania University of Brasov, 3

20. Robinson, N. G. (2009). Music therapy for animals-a new dawns

21. Baeck, E. (2002). The neural networks of music. European Journal of Neurology, 9, 449-456.

22. F.E. Bloom & S.C. Landis (Eds.), Fundamental neuroscience (pp. 1313-1335). Toronto: Academic Press.

23. Cognitive development. In: M.G. Zigmund

24. Albert, M., Diamond, A., Fitch, R., Neville, H., Rapp, P., &Tallal, P. (1999).

25. Rauscher, F.H., & Zupan, M.A. (2000). Classroom keyboard instruction improves kindergarten children's spatial temporal performance: A field experiment. Early Childhood Research Quarterly, 15, 215-228

26. Cassidy, G., Mac Donald, R. A. R. (2007). The effect of background music and background noise on the task performance of introverts and extraverts. Psychology of Music, 35, 517-537.

27. Augustinus, E. M., Hollander, D., Elise, E. M.,Kempen, V., & Staatsen, B. A. M. (2000)

28.Community noise burden of disease,Unpublished dissertions, world health.organization (WHO) in Genova andUNECE-WHO-PEP, igitur-archive.library.uu.nl/dissertations/2004-0511-152200/c6.

29.Avila, C., Furnham, A., & McClelland, A.(2012). The influence of distracting familiar vocal music on cognitive performance ofintroverts and extraverts. Psychology of Music, 40, 84-93

30. Belojevic, G., Jakovljevic, B., Slepcevic, V.(2003). Noise and mental performance,personality attributes and noise sensitivity.Journal of Nose Health, 6, 77-89

31. Gadami, M., & Mehta, D. Effect of music on plant growth

32. Broadbent, D. E. (1978). Decision and Stress.New York: Academic Press