



THE EFFECT OF MUSIC ON THE ACADEMIC PERFORMANCE OF PUPILS IN MATHEMATICS: A SURVEY OF EARLY CHILDHOOD EDUCATION IN TUBAH MUNICIPALITY, CAMEROON

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Abstract:

This study investigated the effect of music on pupils' academic performance in nursery and primary schools of Tubah Municipality. In order to achieve this objective, we used a quasi-experimental research design with both quantitative and qualitative research methods. From the total population of 3,070 pupils and 300 teachers in 45 schools, 120 pupils, 40 teachers and 04 schools were sampled using the non-probability sampling technique that is the convenient. The purposive sampling technique was used in deciding which part of the accessible population constitutes the sample population which in this case was made up of nursery school children, primary two pupils and teachers. The Krejcie and Morgan table was used to decide how many teachers and pupils make up the sample. Four instruments were used to collect data; a structured questionnaire designed using the likert scale, an interview guide for teachers, working memory test and participant's observation guide. Descriptive statistics (in the form of frequencies, percentages, charts and tables) and inferential statistics were used for data analyses. Specifically, the two-way ANOVA and Regression analysis tests were used to test the hypothesis at a 0.05 level of significance. The finding revealed that there is a significant relationship between the use of music in the teaching and the pupils' academic performance in Mathematics. That is, when music is used the pupils perform better in Mathematics. Based on these findings, it was recommended that more attention be given to ensure the employment of music pedagogy within the competence/project based approaches.

Keywords: music; academic performance; mathematics; early childhood education

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1. Introduction

The place of music in education cannot be over-emphasized. Historically, Greek myth and legends tell of the wondrous effects of music. The first Greek philosophers to consider music as important in education and society were Plato and Aristotle. They examined the ends of music, recognizing it and placing most of their discussion on music in their political works. Also, music has a relationship to the common good, particularly its place in education. For Plato (*The Republic V*, iv, 435a -449a), the development of a person's natural capacity lies in the type of education given to that person. He presents music as an indispensable educational value ranging from nursery education right to the education of the philosopher king. Plato's value to music lies in its ability to develop moral character. Aristotle corroborates this importance of music in education but he outlines a tripartite role of music in education. These include; the development of a moral spirit, purgation of emotions and lastly, for relaxation and leisure (*The Politics*, 1275a8).

Also, music plays an important role for both secular and religious activities. In most cultures in Africa, the value of music cannot be over-emphasized. Leopold Sedar Senghor applies the Cartesain "*cogito ergo sum*" in the context of Africa as "I dance, therefore, I am" (Ngalim, 2016). This description reveals the intrinsic characteristic of the people. In Africa, music is ultimately concerned with various customs and religious practices. Africans are born, named, initiated, fortified, nurtured and buried with music. In addition, music was highly portrayed in the decolonization process as well as other struggles for freedom. For instance, in South Africa, freedom songs uplifted and encouraged the spirits of those who fought against Apartheid. This could be referred to as a pedagogy of humanism. Within a school setting, music also complements classroom activities. Music has the power to serve as a teaching aid that focuses on diverse learning skills of pupils and students. Binkiewicz (2006) asserts that songs are a powerful pedagogical tool that enlivens the classroom and enhances children learning in an enjoyable manner.

Today, pre-school children learn through music which includes practical activities like singing, dancing and listening. Music requires actions, dance, jumps and gesticulations following the rhythm or instruments of music. The incorporation of music to pre-schooling children at the appropriate time prepares them for school readiness (Bongwong, 2015). From Gardner's multiple intelligence theory, the use of music as a teaching aid permits many pupils/students to be able to participate in classroom activities according to their interests/ aptitude. Music produces a kind of pleasure which human nature cannot do without. It helps children to make connection between what they experience at home and what they are taught in school, thus bridging the gap between home and school (Dewey, 1966).

Some studies have been carried out to emphasize the importance of music in the teaching-learning transaction. Gardner et al. (1996) carried out a research on the impact of an arts program on children's learning abilities in Mathematics. The findings revealed that music helps children to participate and perform better in Mathematics

than those who do not. Also, a connection between music and Mathematics was also found during a neurological research study. It was documented that *“higher brain function of abstract reasoning as well as spatial and temporal conceptualization are enhanced by music activities. Music can generate the neural connections necessary for using important mathematics skill”* (Church, 2000).

Besides, Bongwong (2015) investigated memory processes in acquiring xylophone playing competence among Nso children in Kumbo, Cameroon. He noticed that, the experimental group (8.3) possessed more xylophone playing ability than the control group (8). His results showed that there was a significant difference of (0.9) between the experimental and the control group. The experimental group that played the xylophone performed better in working memory skills, psychomotor skills and the acquisition of social and cultural values. Rauscher et al. (1997) explored the impact of different types of musical activities in at risk pre-school children. For the groups that used piano, singing, reciting rhymes, it was noticed that their performance was significantly higher than that of all other groups on tasks requiring temporal cognition and mathematical ability. Rauscher argues that music engagement can have an impact on intellectual development.

2. Statement of Problem

Owing to studies confirming that music is a means of easily hooking and enhancing the interest and attention of pupils in the teaching-learning transaction irrespective of age and time, it is particularly appalling to question the negligence experienced in the employment of this pedagogic technique within the competence or project-based approaches in schools. In Cameroon for instance, music is included in nursery and primary school curricula but the provision of resources for its implementation has much to be desired. In almost all our nursery and primary schools, music is the least-equipped and accommodated subject in the curriculum (Titanji et al, 2008). This is because some teachers hardly make use of it or only use it for play, psychomotor and socio-affective developments of a child. While some teachers argue that there is no time to teach using music, others hold that it constitutes a teaching aid that requires great attention. The negligence of this value in teaching probably lies in the fact that many teachers do not have some basic musical knowledge and skills. Consequently, they cannot use this method in teaching. The problem is, if music can stimulate mental abilities and aid in retention, attention, relaxation, and purgation of emotions, then why not make use of it. Levinowitz (1998) asserts that to ensure comprehensive learning, music must be included in early childhood education. In view of all these, this study set forth to inquire whether the effective use of music in the teaching-learning transaction significantly influences the academic performance of pupils in Mathematics.

2.1 Research Objective

This study set out to investigate whether the use of music has a significant effect on the pupils' academic performance in Mathematics.

2.2 Research Question

To what extent does the use of music influence the performance of pupils' in Mathematics?

2.3 Research Hypothesis

Ha: Probably, the use of music has a great significant effect in the teaching and learning of Mathematics by pupils in Tubah Municipality.

2.4 Significance of the Study

This study is significant to teachers, school administrators, teacher training colleges and parents. This study recognizes that music effectively achieves one of the major objectives of nursery and primary education such as the total development of the pupils. Through the use of music, the teacher satisfies one of the major needs of pupils such as the need to play. According to Howard Gardner (2010), music intelligence is important to logical, mathematical, linguistic, spatial interpersonal and interpersonal intelligences. This helps the school administration to incorporate learners' needs and interest when developing the curriculum. Rauscher et al, (1997) affirm this when they said music education in the curriculum renders the education of children sustainable and credible. The importance of this study to the teacher training college is a revival and emphasis on music education in the colleges. For the parents, the exposure of pupils to music that builds a good moral spirit enhances their intellectual development.

2.5 Justification of the Study

Following Dewey's pedagogy of interest where teaching has to be done according to the needs, experiences, desires and aptitude of learners, music provides alternative techniques of teaching one and the same subject matter (1966). The theory to be obtained from this study gives policy makers the grounds to advocate for provisions of music facilities and laboratories in schools so as to encourage this value in the curriculum. This study also inspires teachers to organize methods of teaching to facilitate learning of abstract subject matter by pupils. For Howard Gardner (2010), musical intelligence is important to linguistic, mathematical and spatial intelligences. From this perspective, most teachers understand the place of music in pedagogy and seek ways of exploiting it for the sake of educational development.

2.6 Delimitations of the Study

This study centers on how the use of music in teaching affects the academic performance of pupils' in Mathematics. Geographically, the research was carried out in Tubah sub-division of the North West Region of Cameroon. There are several schools in this municipality, but it was delimited only to some selected nursery and primary

schools. Though limited in scope to Tubah sub division, the findings of this study are exploitable in other settings.

2.7 Definition of Key Terms

Music refers to a combination of melody, rhythm, and harmony that is pleasant to the ears and expression of the soul. Titanji et al. (2008) defines music as an important means of emotional and aesthetic expression.

Early Childhood Education involves all the practices with the good of encouraging and enabling the young child to increase his/her psychomotor, intellectual, psycho-affective and socio- adaptive capacities and skills. These integrate motor, cognitive and psycho-social behaviours (Nsamenang et al. 2013). Academic performance in the context of this study refers to the outcome of education and the extent to which a pupil, student, teacher or institution has achieved their educational goals. These are measurable through scores obtained from exercises and assignments. For instance, the effect of music in teaching could be evaluated from the pupils' ability to counting and identify. 'One, two, three, four, five can you catch a fish alive why did you let it go because it bit my finger so'. Through this, the children learn counting and new expressions.

For the explanation of music, dance and numbers in the context of this study, I will refer to the inspiration of Ann Epstein (2003). The concepts of numbers develop as children classify objects. They count the objects to know how many are in each group thereby building Mathematics related thinking. Also, they notice and respond to similarities and differences in the context of music. While singing and dancing, children experience the rhythms of the words or songs in patting, tapping or walking to the steady beats, thus matching their pats or steps to one-to-one with the beats. As the exercise is done repeatedly, they become accurate with steady beats of such experiences.

2.8 Theoretical Framework

Two theories have been identified to explain the influence of music in the academic performance of pupils in Tubah Municipality. These theories include; John Dewey's theory of interest and Howard Gardner's theory of multiple intelligences. The first theory to be examined is Dewey's theory of interest, which emphasizes the invaluable role of the child's needs, aptitude, desires, experiences and capacities in the development and organization of the school. As a pedagogic theory, interest is conceived as an active agent that leads the child to take part in classroom activities. Dewey argues that it is not a matter of making the material interesting or using external stimulants to sustain attention, but a profitable use of experience like music, when it helps pupils engage and carry on with learning activities consistently and continuously. Within this framework of thought, Dewey's theory of interest advocates the use of music to teach Mathematical concepts. Music here serves as a means used by the teacher to bridge the gap between the abstract subject matter and the desired objectives of the lesson (Ngalim, 2018). For Dewey, play is a subconscious activity that helps a

child to develop in mind and in feelings. Play should be emphasized in early childhood education to help the child to grow into the working world. When children become adults, they no longer “play”, but seek amusement from their occupation (Dewey, 1966).

The second theory here refers to Howard Gardner’s theory of multiple intelligences. According to Gardner, human beings possess a number of relatively distinct intelligences. A child may be weak in one area of intelligence but strong in another. Gardner believes that learners have a unique blend of capabilities and skills. These intelligences can be categorized into eight different types which include; verbal or linguistic intelligence, logical or semantic intelligence, musical intelligence, bodily, kinesthetic intelligence, intrapersonal intelligence and naturalist skills (Garner et al. 1996). Gardner’s eight intelligence are as follows:

Table 1: Shows the summary of Gardner’s eight intelligence

Intelligence	Description
Linguistic / Verbal	An ability to analyze information and create products involving oral and written languages such as speeches, books and memos as a means to remember information
Logical / Mathematical	An ability to develop equations and proofs mathematic calculations and solve abstract problems.
Musical	An ability to produce; remember and make meaning of different patterns of sound.
Bodily / Kinesthetic	An ability to use one’s own body to create products or solve problems.
Spatial / Visual	An ability to recognize and manipulate large scale and fine grained spatial imagine to solve problems.
Interpersonal	An ability to recognize and understand other people’s moods, desires motivations and intentions (other people’s feelings).
Intrapersonal	An ability to recognize and understand one’s own feelings.
Naturalist	An ability to identify and distinguish among different type of plants, animals and weather formations that are found in the natural world.

Gardner (2010) also proposed what he called project spectrum which is an innovative attempt to examine the proposed eight intelligences in young children. According to project spectrum, every child has the potential to develop strengths in one or more areas (Gardner, 2010). This project gives the weakness of individual children. Gardner’s theory is important in early childhood education because it gives room for the teacher to identify the different learning abilities and try to integrate them into the teaching-learning process. Therefore, teaching and learning should take place through several modalities and develop a curriculum that carters for diverse intelligences. The use of diverse teaching techniques gives pupils equal chances and opportunities to learn following their experiences, needs, capacities and desires (Dewey, 1966). To corroborate this argument within Dewey’s theory of interest, diversity in the teaching methods ascertains learning according to ones’ aptitude.

3. Research Methodology

A quasi-experimental research design was chosen for this study. In this type of design, two groups of pupils are envisaged in the experiment; the experimental group and the control group. This research design was concerned with examining the effect of the independent variable on the dependent variable (Ngworgu, 1999). This research used both quantitative and qualitative methods in collecting data. Two types of questionnaires were used to collect data from pupils and teachers. A working memory test was also used to collect quantitative data on mathematical skills like sorting, numbering and classifying. On the other hand, a structured interview guide was used for qualitative data on mathematical skills supposedly acquired by pupils through the use of music in teaching-learning process.

The target population of this study was made up of all the pupils and teachers of all the nursery and primary schools in the Tubah municipality. In Tubah municipality, the total number of schools is 45 with 3,070 students and 300 teachers.

Table 2: Target population in Tubah municipality

Name of School	Number of Pupils	Number of Teachers
St Peters	80	11
Destiny	33	7
GBS Tubah	127	6
GS Achieni	86	6
GS Fingi	70	6
GS Macha	50	7
GS Mallam	21	6
CS Bambili	160	15
GS Ntigi	40	5
CS St Peters	150	11
CC St Jude	80	6
CS St Benard	70	5
CS St Francis	80	6
PS Mbwasu	50	5
Destiny BPS	80	6
CBC Finge	30	4
PS Tubah	40	4
GNS Bambili	100	7
PS Akou-1	50	5
PS Akou-2	50	5
Lady Martha`S	180	8
Marbet	90	5
Crystal	150	15
PNVA Bambili	160	15
GS Bambili	170	11
BMFR Bambili	180	15
Mustard Seed	70	7
GS Abobong	50	8
GS Big Babanki	50	7

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GS Lih	30	7
GS Mughe	20	5
GS Tongou	15	5
CBC Tongou	40	6
CS Keku	22	6
GS Fuphense	20	6
GNS Sabga	30	2
CBC Kwich	50	4
CS ST Patric	60	6
GS Tichuh	20	5
CBC Chuku	50	6
GS Ketié	33	4
GS Tungoh	20	3
GS Nchoken	40	6
PS Mwasu	15	5
Total	3,070	300

Source: Tubah council report, 2015

In this study, the accessible population comprised four nursery and primary schools (public, private and lay private), pupils and teachers found in Bambili. These four schools had a total population of 45 teachers and 180 pupils. The accessible population was used to give the sample population.

Table 3: Accessible population

Name of Schools	Number of Pupils	Number of Teachers
GNS Bambili	30	8
Crystal	40	15
BMFR Bambili	60	13
GBPS Bambili	50	11
Total	180	45

In this study, out of the total number of teachers and pupils found in the schools in Bambili, a total number of 120 pupils (4 to 9years old which is from nursery one to class 4) and 40 teachers were selected from four schools. These schools were; Government Nursery school (G.N.S), Mother Franca Roberto Catholic Bilingual Nursery and Primary School (M.F.R.C.B.N.P.S.), Crystal Bilingual Nursery and Primary school (C.B.N.P.S) and Government Bilingual Primary School (G.B.P.S). The researchers used the Krejcie and Morgan table to select this sample (Amin, 2005). This research selected this age group because it indicates early childhood where the cognitive abilities and working memories of the children are fast expanding to encode, store and quickly retrieve information.

For the purpose of the study, a non-probability sampling design in the form of convenience sampling method was adopted and considered to be appropriate to gather the data. The justification for using this sampling method was due to the fact that the respondents were easily accessible, available and it was possible to get data within a short period of time (Amin, 2005). Further, convenience sampling involves collecting

information from members of the population that are near and readily available for research purpose. We adopted a purposive sampling method to get the pupils' (class) and teachers to work with. This was achieved through consultation with school authorities in identifying children between the ages of 4 to 9 and teachers who teach this age group.

Table 4: Sampling distribution of the study

School selected	Type	Pupils	Teachers
G.N.S	Public	30	10
M.F.R.C.B.N.P.S	Private	30	10
C.B.N.P.S	Lay private	30	10
G.B.P.S	Public	30	10
Total	4	120	40

The instruments used for this study included; interview guides, working memory test, participant observation and questionnaire. Prior to the administration of the instruments to collect data, a pilot test was carried out to test its reliability. At the start of the pilot test children were assigned to two groups (experimental and control group) where pretest and a mid-test were administered to them two weeks after they were taught certain lessons using songs and dance. During the first two weeks of third term, a post-test was also administered. The working memory process, which the instrument actually tested and the consistency of the scores obtained provide enough support for the reliability of the instrument. We also carried out a pilot test with 40 teachers and 120 pupils who were part of the population and not of the sample. The same exercise was repeated after a period of two weeks using the same teachers and sample. Thus, the responses registered two weeks after had some similarities. The results obtained at different periods were compiled and computed using ANOVA. The answer showed a reliability coefficient of 0.85 which indicated that the instrument was reliable.

4. Presentation of Findings

The findings of this study have been presented following the data collected on the two aspects of music, viz, singing and dancing. Here, we have organized the information obtained from the different instruments in data collection. It is presented in the order of interviews with teachers, questionnaire answered by teachers and working memory test used for the pupils.

4.1 Experimental and Control Group Based on Interviews with Teachers

Following the analysis of data collected from teachers during the interviews, 57.0% of the teachers interviewed observed that pupils taught Mathematics without the use of music (singing and dancing) referred to as the control group perform well in Mathematics. On the other hand, 80.0% of the teachers maintain that the other pupils taught with music (singing and dancing) experimental group perform better than those

taught without music. From the greater percentage of those taught with music, one is probably led to maintain that mathematical skills are enhanced with the use of music.

Table 5: Data on experimental and control groups on mathematical skills

Items	Experimental Group		Control Group	
	Frequency	Percent	Frequency	Percent
1	40	100	30	75%
2	33	82.5	27	67.5%
3	30	75	25	62.5%
4	39	97.5	30	75%
5	36	90	27	67.5%
Total	184	80	139	57

4.2 Experimental and control group based on questionnaire for teachers

Table 5: Data on experimental and control group on mathematical skills

Column1	Coefficients	Standard Error	t Stat	P-value
Intercept	0.838870092	0.283002688	2.964177114	0.006949966
Q1	0.375139951	0.078345033	-4.788305483	7.89138E-05
Q2	1.844583354	0.278508043	6.623088272	9.31645E-07
Q4	1.726289448	0.28439349	6.070073724	3.43067E-06
Q5	-1.228644641	0.280246326	-4.384159672	0.000216104
Q6	0.829226994	0.177075956	4.682888694	0.000102599
Q7	0.111181468	0.046497676	2.391118829	0.02536896
Q8	0.109415664	0.051826379	2.111196399	0.045831758
Q9	-0.174464162	0.080459925	-2.168336133	0.04072439
Q10	1.147840217	0.191197974	6.003412019	4.02383E-06
Q11	-0.650842297	0.152644627	-4.2637747	0.000291772
Q12	-0.254647018	0.202255239	-1.259037929	0.22064556
Q13	-0.237540268	0.060522344	-3.92483586	0.000677871
Q14	-0.618647921	0.188798788	-3.276757899	0.003310187
Q15	-0.460442547	0.123160719	-3.738550321	0.001074321
Q16	-1.057717097	0.213563705	-4.952700632	5.2449E-05
Q17	-0.010963579	0.104471846	-0.104942908	0.917330941

4.3 Experimental and Control Group on Mathematical Skills

It was realised that the P. Value is less than 1, that is, $0.006949966 * 100 = 0.695$. The value above means there is a significant difference in using music to guide pupils to sort and classify material and objects at 1% level of significance. Hence the null hypothesis H_0 , which says there is no significant relationship between the use of music and the academic performance of pupils in Mathematics, has been rejected and alternative hypothesis H_a , which indicates that there is a significant relationship between the use of music and academic performance in Mathematics has been retained.

Also teaching children using music and dance helps pupils understand the notion of time, months and years. The high degree of significance is expressed in the figures below, $0.000216104 \times 100 = 0.022$. The P value is less than 1 meaning there is a

significant difference between the performance of pupils taught with music and those taught without music.

More so, $0.000102599 \times 100 = 0.010$ was realised and since it is less than 1 it means there is a significant difference in the use of music in teaching pupils to recognise geometric shapes at 1% level of significance. Therefore, the null hypothesis is rejected and the alternative hypothesis is retained.

In a nutshell, the responses from the teachers affirmed that when pupils are taught using music (experimental group), their acquisition of Mathematical skills is observed. The absence of this pedagogic aid, that is, teaching Mathematics without music (as in the control group) do not enhance their acquisition of Mathematical skills. Hence, the results reveal that the use of music is highly significant in teaching Mathematics since the P value is less than 1. The implication is that music helps pupils acquire Mathematical skills.

4.4 Working Memory Test for Pupils

A working memory test was used for pupils in both the control and the experimental groups in the study. This was meant to find out the level of acquisition of Mathematical skills when pupils are taught using music and dance.

Table 6: Working memory test for pupils on mathematical skills

Source of Variation	SS	df	MS	F	P-value	F crit
Sample	30.0125	1	30.0125	36.70072	0.04	3.96676
Columns	0.6125	1	0.6125	0.748994	0.3895185	3.96676
Interaction	0.1125	1	0.1125	0.13757	0.7117403	3.96676
Within	62.15	76	0.817763			
Total	92.8875	79				

From the memory test scores obtained, analysis of variance was conducted and the p value as 0.04 which is multiplied (0.04×100) in order to acquire the level of significance, that is, $0.04 \times 100 = 4$. This is less than 5 and it is significant at the level of 5%. There is a moderate significant difference in the mean scores of the pupils taught Mathematics using music (experimental group) and those taught without music (control group). Therefore, we reject the null hypothesis which stated that there is no significant difference between the use of music in teaching Mathematics. In this light, the alternative hypothesis is retained with the argument that there is a significant difference between the use of music in the teaching and learning of Mathematics. Consequently, there is a significant relationship between the use of music in teaching Mathematics and the academic performance of the pupils in the said subject.

5. Discussion

From the findings, it was revealed that when music is used to teach Mathematics, the pupils acquire skills and understand faster, hence enhancing acquisition. This was

noted by most of the teachers who responded positively towards the view that musical activities like singing and dancing enhanced the acquisition of Mathematical skills in children. The evidence is discernable in the higher percentage of the Experimental Groups as opposed to the Control Groups. Thus, the responses in descriptive analysis of interviews conducted with teachers affirm the invaluable role of music in enhancing mathematical skills.

The mean value for those who were taught using of music (Experimental Group) was greater than those taught without music (Control Group) as seen in the test of hypothesis. Based on the high level of significance, the null hypothesis is rejected while the alternative hypothesis is retained. The conclusion is that the use of music is of great importance to the academic performance of pupils in Mathematics.

For the working memory test, pupils in the Experimental Group scored higher than those in the Control Group. Also, the test of hypothesis here reveals that the null hypothesis is rejected and the alternative hypothesis retained. Gardner supports this fact when he asserts that, the teaching and learning process should take place through several modalities. According to him, since children possess different kinds of minds, interests aptitude and learn, remember, perform and understand in different ways, diverse pedagogic techniques should be used to give equal learning opportunities to all (2010). Musical intelligence is one of the intelligences that shows sensitivity of rhythm like in the numbers 1,2,3,4,5 which constitute the basic mathematics skills or concepts. Bongwong (2015) opines that singing and playing instruments help children to learn Science. Music either in singing or dancing assists with memorization, recall and retention of facts. Binkiewicz (2006) supports the view that learners have different learning styles and unique skills but that having an exceptional talent in a particular domain such as music could be harnessed for to improve on Mathematics skills.

6. Conclusion and Recommendations

This research set out to justify the thesis that using music as a teaching aid and hook within and without the classroom enhances the academic performance of pupils in Mathematics. Following the analysis of the data obtained in the study, the findings reveal that there is a strong correlation between music and the academic performance of pupils in Mathematics. This study enabled us to understand that music has a great role during the teaching-learning process. Teachers have the duty to employ hooks like musical pieces and gesticulations that lead pupils to interesting learning experiences. Also, for learning to be effective in nursery and primary schools, music needs to be part of the curriculum and teachers need to be trained on how to use music in teaching depending on the lesson and the age of the learners. Levinowitz (1998) asserts this when he said that to ensure a comprehensive learning experience, music has to be included in early childhood education.

From the findings, this study recommends that the training program of teachers should take into consideration the various means of exploiting musical skills to ensure the teaching and learning of Science, precisely Mathematics. That is, policy makers in

education should put in place appropriate methods for conducting lessons by using music to enhance better understanding and acquisition of abstract concepts. The government should create a conducive and favorable environment to train music teachers and experts at teacher training colleges in the country. Most of the nursery and primary schools need to organize monthly meetings to sensitize teachers on the importance of music during the teaching process. Supervisors and inspectors should control the effective use of music as a technique within the competency and project-based approaches. In spite of the fact that this study was carried out in Tubah Municipality, the findings are exploitable in diverse quarters within and without Cameroon.

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