MUSIC PEDAGOGY AND LEARNER ACQUISITION OF COMMUNICATION AND COLLABORATION SKILLS

**Abstract**

Based on the Competency Based Curriculum, Communication and Collaboration are among the 21st Century skills that need to be inculcated into learners. The objective of this study was to determine the effect of music pedagogy on learner acquisition of communication and collaboration skills. The study was based on Vygotsky’s Socio-cultural Theory of cognitive development and Bruner’s Cognitive Development Theory. This study was carried out in public primary schools of Bungoma County, Kenya. The respondents were 300 Grade Four learners, 20 music teachers of Grade Four, 20 head teachers, 2 Curriculum Support Officers and 1 KICD official. The instruments of data collection employed were questionnaires, interview schedules and observation guides. Research findings indicate that singing, dancing and use of percussions are the main activities that learners do to promote communication and collaboration. This study is expected to help teachers to gauge their levels of preparedness in handling music and the Ministry of Education in capacity building for Music teachers. Its findings may also guide the Kenya Institute of Curriculum Development to produce relevant materials and course books for music and an appropriate curriculum design that reflects the reality in the schools.

**Key words:** Music Pedagogy, Communication, Collaboration, Competencies, Competency-Based Curriculum.

1. **Introduction**

The Kenyan Competency-Based Curriculum (CBC) is a new system of education designed by the Kenya Institute of Curriculum Development (KICD) and launched by the Ministry of Education in 2017. The CBC is designed to emphasize the significance of developing skills and knowledge and also applying those competencies to real life situations. The creators of CBC envision that at the end of the learning period, every learner should have achieved seven competencies which are: communication and collaboration, critical thinking and problem solving, imagination and creativity, citizenship, learning to learn, self-efficacy and digital literacy. Communication and collaboration is intended to teach learners how to communicate effectively and work together in order to realize shared goals. Critical thinking and problem solving is aimed at teaching learners to think critically by guiding them on how to reason make judgments and solve problems. Imagination and creativity enable learners to find creative solutions to challenges they are facing so that in future they may be able to create solutions to problems facing them, their community or society and the world at large. Citizenship teaches learners to respect and embrace different cultures across the country and globally by helping learners to understand that they are living in a world that is interconnected and therefore, they should respect others and the world they live in. Regarding learning to learn, the competency based curriculum looks at learning as a continuous process, one that helps learners to build on past learning and life experiences. This helps learners to apply knowledge and skills that they acquire or develop in different life experiences. Concerning self efficacy, the Competency-based Curriculum is expected to teach learners to have self belief that they can perform and accomplish a hard or challenging task. This helps learners to approach difficult tasks as challenges rather than threats to be avoided. Regarding digital literacy, information and communication technology should be used as a learning tool in all learning areas because there are so many technology devices such as mobile phones, tablets and laptops and the world is now a digital space (Wambugu, 2022).

At the end of the learning period the learner should have been moulded to have self-values which are: Love, Responsibility, Respect, Unity, Peace, Patriotism and Integrity. Regarding love, the competency based curriculum is geared towards teaching learners to have an intense feeling of deep affection towards others. About the value of responsibility, learners ought to do things or perform their duties in the right manner and have control over what they do. On respect, learners should have due regard for the feelings, wishes or rights of others. Learners should learn togetherness and teamwork and be joined as a whole through the value of unity. Through the value of peace learners will learn the importance of tranquility and freedom from disturbance. Patriotism as a value will teach learners devotion to their country and also participate actively in activities that promote support and love for the country. Through teaching of integrity, learners will appreciate the importance of being honest and having strong moral principles (Wambugu, 2022).

Music is one of the subjects included in the CBC. The general expected learning outcomes of Music as outlined in the CBC are that by the end of the upper primary school the learner should be able to sing alone and with others different genres of music, create rhythms and melodies within specified guidelines for enjoyment, play instruments alone and with others for individual development, self-fulfillment and enjoyment, use locally available materials to make instruments and costumes for use in music making, perform a dance for self and cultural expression, evaluate music and music performances to make meaningful connections to creating, performing and responding to music and use available technology to enhance learning and develop creativity in music (KICD, 2019).

The three Music strands in Grade Four which are: Performing, creating and composing and listening, responding and appreciation are expected to help the learner to acquire communication and collaboration skills. There are several activities that teachers can involve their learners in to promote communication and collaboration. These activities include singing, dancing, acting, playing instruments, storytelling, poetry and listening to music. However, learners are not exposed to all these activities.

1. **Data and Methods**

Data was collected from teachers, learners, head teachers, curriculum support officers and Kenya Institute of Curriculum Development official for a period of one month.

**2.1 Participants**

Respondents in this study were 20 Grade Four Music teachers, 300 Grade Four learners, 20 head teachers of public primary schools, 2 curriculum Support officers and 1 KICD official.

**2.2 Data Collection**

The researcher visited each sampled school and did formal introduction. Instruments for data collection were questionnaires, interview schedules and observation guides. Teachers filled questionnaires and were collected on the same day. As teachers were filling questionnaires, the researcher was conducting an interview with the school head teacher. Learners were then observed performing activities that promote communication and collaboration. These activities were singing alone, singing in groups, playing percussion instruments alone, playing percussion instruments in groups, dancing alone, dancing in groups, listening to recorded music in groups and clapping or tapping rhythms in groups. One Curriculum Support Officer was interviewed at the researcher’s place of work. Telephone interview was conducted with the other Curriculum Support officer and Kenya Institute of Curriculum Development official.

1. **Data Analysis**

Data for this study was analyzed per the objective. The descriptive statistics were frequencies and percentages (Bhandari, 2020). Data collected was coded and data sheets created. Data was then reduced to frequencies and percentages using manual computation, scientific calculator and SPSS. The SPSS is one of the reliable statistical packages for data storage, manipulation, analysis and reporting (Yadetta & Ngau, 2004). Data was then presented in the form of frequency tables and pie charts (McCombes, 2019). As for inferential statistics, regression analysis was used. The researcher sought guidance from Information and Communication Technology (ICT) experts. Interpretation of data was done then conclusions and inferences made based on research objective.

*Table 1: Singing Alone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 139 46.0

Yes Male 131 44.0

No Female 11 4.0

No Male 19 6.0

Total 300 100.0

**Figure 1: Singing Alone (Solo Singing)**

*Table 2: Singing in Groups\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 148 49.0

Yes Male 150 50.0

No Female 2 1.0

No Male 0 0.0

Total 300 100.0

**Figure 2: Singing in Groups**

*Table 3: Singing Alone (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 38 95.0

No 2 5.0

Total 40 100.0

*Table 4: Singing in Groups (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 40 100.0

No 0 0.0

Total 40 100.0

In order to test the ability of a learner to sing alone, the researcher asked each learner to sing the first stanza of the Kenya National Anthem in Kiswahili. The measure was that all words had to be correct. In addition, the tune for each line had to be accurately articulated. The researcher chose the National Anthem because it is a common song; learners are exposed to it in their early years education; they sing it during Monday and Friday assemblies and it is expected that by the time they start their middle school education, they should be able to sing it without struggle. To test singing in groups, the researcher asked learners to sing a folksong from any Kenyan community in addition to singing the National Anthem in Kiswahili. Communication and collaboration was measured basing on their participation and how they responded to the soloist; synchrony of voices and movement and smooth transition from one melody to another. Mood depicted was also looked at.

From table 1 and figure 1 above 139 (46%) female learners and 131 (44%) male learners were able to sing alone while 11 (4%) females and 19 (11%) were not. On the other hand, from table 2 and figure 2, 148 (49%) females and 150 (50%) males managed to sing in groups while 2 (1%) did not. This result shows that most learners were able to sing. According to Estrella (2008), children should be taught music that engages their mind through a mixture of singing, dancing, acting and playing instruments. All 20 (100%) teachers and 20 (100%) head teachers said they had exposed Grade Four learners to singing as shown in table 4. CSOs and KICD official were in agreement that singing is one of the main activities that learners ought to be engaged in Grade Four.

*Table 5: Playing Instruments Alone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 60 20.0

Yes Male 56 19.0

No Female 90 30.0

No Male 94 31.0

Total 300 100.0

**Figure 3: Playing Instruments Alone (Solo)**

*Table 6: Playing Instruments in Groups \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 55 18.0

Yes Male 49 16.0

No Female 95 32.0

No Male 101 34.0

Total 300 100.0

**Figure 4: Playing Instruments in Groups**

*Table 7: Playing Instruments Alone (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 28 70.0

No 12 30.0

Total 40 100.0

*Table 8: Playing Instruments in Groups (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 32 80.0

No 8 20.0

Total 40 100.0

Percussions were used to test learners’ ability to play instruments. Percussions were used because they are self-sounding instruments and are readily available. They are easy to make. In order to assess learner mastery of playing techniques, coordination of instruments with singing was examined.

As shown in table 5 and figure 3 above, 60 (20%) female learners and 56 (19%) male learners managed to play instruments alone while 90 (30%) females and 94 (31%) males did not. On the other hand, from table 6 and figure 4, 55 (18%) females and 49 (16%) males managed to play instruments in groups while 95 (32%) females and 101 (34%) males did not manage to. Though 28 (70%) of teachers and head teachers who were interviewed said that their Grade Four pupils were able to play instruments alone, from observation, it was evident that most learners were not exposed to instruments. This is in agreement with what Anyereka (2008) reports about Nigerian Music curriculum, that is, apart from highly priced private schools, music in public schools was largely untaught or limited to theory.

*Table 9: Dancing\_Alone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 132 44.0

Yes Male 139 46.0

No Female 18 6.0

No Male 11 4.0

Total 300 100.0

**Figure 5: Dancing Alone (Solo Dancing)**

*Table 10: Dancing in Groups\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 142 47.0

Yes Male 144 48.0

No Female 8 3.0

No Male 6 2.0

Total 300 100.0

**Figure 6: Dancing in Groups**

*Table 11: Dancing Alone (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 34 85.0

No 6 15.0

Total 40 100.0

*Table 12: Dancing in Groups (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 40 100.0

No 0 0.0

Total 40 100.0

Results in table 9 and figure 5 show that, 132 (44%) female learners and 139 (46%) male learners were able to dance alone while 18 (6%) females and 11 (4%) males were not. On the other hand, from table 10 and figure 6 142 (47%) females and 144 (48%) males were able to dance in groups while 8(3%) females and 6 (2%) males were not. Of the teachers and head teachers who were interviewed, 34 (85%) of them said their pupils were able to dance alone while all the 40 (100%) said their learners were able to dance in groups. CSOs and KICD official were in agreement that dancing is one of the main activities that learners ought to be engaged in Grade Four. To test communication and collaboration, coordination and uniformity of dancing styles was looked at. Estrella (2008) cites dancing as one of the activities that engage learners’ mind and body. Lessons are presented with an element of play helping children to learn at their own level of understanding.

*Table 13: Listening to Recorded Music in Groups\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 5 2.0

Yes Male 0 0.0

No Female 145 48.0

No Male 150 50.0

Total 300 100.0

**Figure 7: Listening to Recorded Music in Groups**

*Table 14: Listening to Recorded Music in Groups (Response of Teachers and Head Teachers)*

**Response Frequency Percent**

Yes 35 87.5

No 5 12.5

Total 40 100.0

Table 13 and figure 7 show that, 5 (2%) female learners and 0 (0%) male learners were able to listen to recorded music in groups while 145 (48%) females and 150 (50%) males were not able to. Learners need to know how to manipulate gadgets such as smart phones to gain music knowledge. As much as 35 (87.5%) of teachers and head teachers said that their pupils were able to manipulate digital gadgets and listen to recorded music; observation of learners revealed that most learners had not been exposed to digital literacy. This result defies what Cavalier (2006) says; that teachers should use tools of music technology to expand their knowledge and that of their learners.

*Table 15: Clapping or Tapping Rhythms\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Response Sex Frequency Percent**

Yes Female 142 47.0

Yes Male 140 47.0

No Female 8 3.0

No Male 10 3.0

Total 300 100.0

**Figure 8: Clapping or Tapping Rhythms**

*Table 16: Clapping or Tapping Rhythms (Response of Teachers and Head Teachers)\_\_\_\_\_\_\_*

**Response Frequency Percent**

Yes 38 95.0

No 2 5.0

Total 40 100.0

From table 15 and figure 8 above, 142 (47%) female learners and 140 (47%) male learners were able to clap or tap rhythms while 8 (3%) females and 10 (3%) could not. This data shows that most learners observed managed to clap or tap rhythms and this result is in agreement with Kapur (2019) who argues, activity-based learning renders an active participation in the learning process and augments learning in an efficacious manner. 38 (95%) of teachers and head teachers said their learners were able to clap or tap rhythms. Well coordinated rhythms meant that learners were able to communicate and collaborate on matters pulse or beat so that uniformity is observed.

1. **Music Pedagogy**

According to Estrella (2008), there are four pedagogies in Music. These are Orff method, Kodaly method, Suzuki method and Dalcroze method. Activities in Orff method are singing, dancing, acting, use of percussions, storytelling and poetry. Kodaly activities are singing, sight-reading, playing rhythms, solfege and hand signs. Activities in Suzuki method are listening to music, repetition of heard music, memorization of music and building music vocabulary. Dalcroze activities are listening to music, eurhythmics, ear training, solfege and improvisation.

1. **Effect of Music Pedagogy on Learner Acquisition of Communication and Collaboration skills**

*Table 17: Regression of Orff method through playing of percussions against collaboration* and communication as a variable of learner acquisition of 21st century skills

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **Variables Entered/Removeda** | | | | | Model | Variables Entered | Variables Removed | Method | | 1 | Playing of Percussionsb | . | Enter | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | b. All requested variables entered. | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Model Summary** | | | | | | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | | 1 | .082a | .007 | .003 | .490 | | a. Predictors: (Constant), Playing of Percussions | | | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **ANOVAa** | | | | | | | | Model | | Sum of Squares | df | Mean Square | F | Sig. | | 1 | Regression | .482 | 1 | .482 | 2.009 | .015b | | Residual | 71.518 | 298 | .240 |  |  | | Total | 72.000 | 299 |  |  |  | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | | | | b. Predictors: (Constant), Playing of Percussions | | | | | | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Coefficientsa** | | | | | | | | | | Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | | B | Std. Error | Beta | Lower Bound | Upper Bound | | 1 | (Constant) | 1.482 | .088 |  | 16.875 | .000 | 1.309 | 1.655 | | Playing of Percussions | .080 | .057 | .082 | 1.417 | .015 | -.031 | .192 | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | | | | | |

From table 17 above, Playing of Percussions has a positive significant impact (β=0.080, P-value=0.015) at p-value <0.05 on the learner acquisition of 21st century skills, this implies that Playing of Percussions contributes to learner acquisition of 21st century skills. The results are supported by Marzieh and Masoud (2010), who averted that, music is an obvious outlet for self-expression and creativity. Learning to read music or play a musical instrument develops higher thinking skills. The child who is skilled at music excels at problem-solving, evaluation and analysis. Equally singing, playing music instruments promotes self-expression and creativity.

Equally, according to Mochere (2014) in teaching and learning of music, methods that allow for discovery and nurture creativity should be used. Music education is practical in nature and therefore learning should be experiential. Learners need to be exposed to creativity method which is all practical and activity-based. The teacher demonstrates to the learner and tasks him or her to create and recreate using techniques such as improvisation, imitation, variation and parody. Learning by and through performance enhances learning by doing. It promotes collaboration and performance experiences are shared. Learners correct themselves in the course of creating a piece of music and compare their ideas as they continue the process. In addition, learners have an opportunity to try out their ideas and skills and receive feedback from fellow learners.

According to Estrella (2018) children should be taught music that engages their mind and body through a mixture of singing, dancing, acting and use of percussion instruments. Lessons should be presented with an element of play helping the children to learn at their own level of understanding while emphasizing arts integrations with stories, poetry, movement and drama. Music should be taught in four stages: imitation, exploration, improvisation and composition. There is a natural progression in that the voice comes first through singing songs and creating poems, then comes body percussion like clapping, stomping and snaps. Last comes an instrument which is viewed as an activity that extends the body. Simple instruments as well as body percussion and vocal patterns are used to communicate through the musical language. In this way children learn by communicating and experiencing first hand rather than from a distance. Children perform in front of their peers without the stress and pressure that learners often experience during conventional music recitals.

*Table 18: Regression of Orff method through Singing against collaboration and communication as a variable of learner acquisition of 21st century skills*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **Variables Entered/Removeda** | | | | | Model | Variables Entered | Variables Removed | Method | | 1 | Singingb | . | Enter | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | b. All requested variables entered. | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Model Summary** | | | | | | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | | 1 | .701a | .492 | .490 | .350 | | a. Predictors: (Constant), Singing | | | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **ANOVAa** | | | | | | | | Model | | Sum of Squares | df | Mean Square | F | Sig. | | 1 | Regression | 35.395 | 1 | 35.395 | 288.157 | .000b | | Residual | 36.605 | 298 | .123 |  |  | | Total | 72.000 | 299 |  |  |  | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | | | | b. Predictors: (Constant), Singing | | | | | | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Coefficientsa** | | | | | | | | | | Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | | B | Std. Error | Beta | Lower Bound | Upper Bound | | 1 | (Constant) | .369 | .075 |  | 4.897 | .000 | .221 | .517 | | Singing | .734 | .043 | .701 | 16.975 | .000 | .649 | .819 | | a. Dependent Variable: Learner Acquisition of 21st Century Skills | | | | | | | | | |

From table 18 above, Singing has a positive significant impact (β=0.734, P-value=0.000) at p-value <0.05 on the learner acquisition of 21st century skills, this implies that Singing contributes to the learner acquisition of 21st century skills.

Music and communication are closely linked and there are many skills that are common to both. Exposure to music from an early age is beneficial for communication development both in terms of spoken language and literary skills. Some of the communication skills children learn through singing are: Maintaining concentration-singing is very engaging and therefore requires one to pay attention for it to be well executed. Another skill is anticipating what is coming next; songs lead the brain to expect or look for the next notes in the melody. Nursery rhymes often have a predictable repetitive pattern of words and or actions which makes it easy for a child to learn to anticipate what is coming next as well as supporting maintenance of concentration. In singing, children learn to take turns in communication by learning to listen and then respond within the song. Learners also learn to use non-verbal communication and eye contact; many children songs have accompanying actions which encourages the development of watching another person, copying them and coordinating gestures with spoken language. Children develop vocabulary through repetition of words and use of rhyme. Hearing the same sentence structure over and over again is essential for learning to say new and longer sentences. Singing promotes phonological awareness; awareness of alliteration, rhyme, syllables and rhythms which are essential skills for later learning to read and write as it supports the ability to break words down into sounds, work out what those sounds are and put them together again to make new words. Several studies agree that singing teaches sequencing skills and just like music, all languages follow a sequence whether it is the order of sounds in words, words in sentence or information in a story (Blethers, 2010).

1. **Conclusion**

From the research findings the main activities that are used to promote communication and collaboration among learners are singing, dancing and playing of percussions. Group singing requires coordination between the soloist and chorus. The soloist signals the start of the song, dictates mood through text used, dictates tempo or speed of the song, coordinates movements that accompany the singing, builds the climax and then signals the end of the performance. The chorus follows directives from the soloist. The soloist and chorus communicate and collaborate to bring forth a well coordinated performance. Short phrases may be answered by long phrases and vice versa. Transition from one melody to another must be smooth and this requires proper communication and collaboration. Mood and meaning of the song are revealed by the words used. In dancing, there should be proper coordination of dance steps. Dance patterns or formations should be well choreographed and change from one style to another must be smooth. In playing instruments, pulse must be observed. There should be rhythmic balance.

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