

Determining the impact of the use of Kodály pedagogical approach (KPA) on teacher trainees' performance (TTP) in basic music skills

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Abstract

This study sought to determine the impact of the use of the Kodály pedagogical approach (KPA) on teacher trainees' performance in basic music skills. The study was guided by Music Learning Theory by Gordon and complemented by the theory of Multiple Intelligences by Gardner. The study adopted mixed methods quasi-experimental research design. The target population was 344, comprising 341 teacher trainees in their second year and 3 college music tutors. Purposive sampling was used to draw participating tutors teaching music, while census sampling was used to select teacher trainees studying music in the second year. A sample of 3 tutors teaching music and 170 teacher trainees studying music in the second year participated in the study. Questionnaires, an interview schedule, and pre-test and post-test evaluations were used in the collection of data for the study. Frequencies, percentages and means were used to summarise and describe data, whereas Analysis of Variance (ANOVA) and T-test were used to establish the impact. The study concludes that the practical aspect of music in the PTE music curriculum should also be examined because Kenyan education is examination-based, and examination is used as a way of improving college pass rates. The study recommends more planning and preparation on the use of KPA by music tutors for continual improvement in music development in teacher training colleges. Aspects of KPA should be polished from time to time; for instance, music tutors' re-training should be ongoing.

Key terms: Teacher trainees' performance (TTP), Kodály pedagogical approach.

INTRODUCTION

The Kodály pedagogical approach to music grew from the ideas of the Hungarian composer Zoltan Kodály (1882-1967). The approach advocates for the use of folksongs to teach music in schools for all levels of education. The components of the Kodály approach are tonic sol-fa, hand signs and rhythm duration symbols. The competencies developed if Kodály pedagogical approach is effectively used include critical thinking and problem solving developed through the selection of appropriate songs and folk songs for use in facilitating learning in primary education; communication and collaboration achieved through group work activities such as the use of hand signs to perform sol-fa ladder while creativity and innovation achieved through creating rhythms using French rhythm names.

In the United Kingdom, music education scholar Bidner (2016) reports that the Kodály music teaching approach uses the folk music repertoire in the classroom for students to learn what music is. The use of folk songs as classroom activities in a music class enhances students' overall academic achievement. In the Philippines, a research study by Moralista (2016) found that using the Kodály approach positively impacts students' academic performance. Korarit et al. (2012) report that Conservatories in the Philippines apply Kodály to teaching music education to develop and improve knowledge in higher education.

Academic performance is apparent phenomena in many countries. In the United Kingdom, performance in examinations provides an objective yardstick for judging educational standards (Eze & Henry, 2015). Academic achievement is measured by how well the students have met the standards set by the examination council. In South Africa, the scholastic accomplishment of studies is estimated by evaluations at whatever level. The evaluations are markers of a person's scholastic capacity, and educators, guardians, and the general population everywhere hold the individuals who do well in high regard (Schreiber & Yu, 2016). Hasnoor et al. (2013) report that students' performance in teacher education is significantly correlated with academic environment and teachers' instructional approaches. A study by Watson (2013) observes that appropriate instructional approaches

facilitate effective learning at the high school level of education.

The Ministry of Education (MOE) in Kenya justifies the teaching of music in primary teacher education (PTE) curriculum because of its contribution to the attainment of National Goals of Education, such as promoting national unity, individual development and self-fulfilment. The current PTE music curriculum (KIE, 2004) advocates for the use of Kodály's pedagogical approach to music education. However, several studies report that regular low academic performance by the majority of students is linked to ineffective use of pedagogical approaches. Therefore, the level of use of the music-based pedagogical approaches could cause a decline in teacher trainees' academic performance, resulting in widespread concern over the music performance at the PTE level.

According to Kenya National Examination Council (KNEC, 2018) teacher, trainees' performance in Music as a subject has steadily decreased over the past five years in all Kenyan primary teacher-training colleges (PTTCs), with an overall mean grade ranging between 4.5 and 6.5. The Nandi County Director of Education (2018) observes that the PTTCs have continually posted unsatisfactory music results for the last five years. The decline in music performance creates a vicious cycle that affects the quality of teaching and learning music in the County TTCs. This may lead to ineffective content delivery of the curriculum, thereby hindering the attainment of National Goals of Education such as national development, individual development and self-fulfilment. In addition, hampering Kenya Vision 2030, which commits to providing globally competitive quality education, training and research for all citizens. Further, hindering Sustainable Development Goal number four (ensuring quality education) and 21st-century learning skills and approaches. On this premise, the current study sought to determine the impact of the use of the Kodály pedagogical approach (KPA) on teacher trainees' performance in basic music skills.

LITERATURE REVIEW

The Kodály approach to music grew from the ideas of the Hungarian composer Zoltan Kodály (1882-1967). The approach advocates for the use of folksongs to teach music in schools for all levels of education. This

is in line with Gault (2013), who observes that the use of folk music leads to learners reconnecting and associating with the music learned within their environment. The choice of folk songs, as proposed by Kodály, encourages the learner to identify with the music of his/her people (Gault, 2013). Smuta (2017) emphasises that the Kodály approach encapsulates a successive procedure by which a culture's society tunes and dynamic, bona fide singing games are executed to mood, song, and amicability notwithstanding the abilities of singing, tuning in, moving, perusing and composing documentation. The authors' discussions on the choice and use of folk songs as found in the Kodály approach were relevant to the current study in two ways; first, how the Kodály approach places singing at the centre of music guidance, and second how singing is utilised as the essential method for building up every melodic expertise. This study used these positions to find out the various uses of singing, specifically folk songs, in the Kenyan context.

The components of the Kodály method are tonic sol-fa approach, where the movable 'doh' system is applied. The 'doh' is the home tone in major scales, while 'lah' is the home tone in minor scales, a series of hand signs showing different pitches in the scale. This helps the listener hear patterns, intervals, phrases and forms, and a system of rhythm duration symbols.

Tonic Sol-fa System

Sol-fa syllables have long been used in music education. Tonic sol-fa is a system of notation that uses sol-fa syllables (Dilek, 2012). It is a holistic approach to music education through singing. It builds a comparative relationship between the tonic and other degrees of the scales, which assists in pitch discrimination in music (Sarrazin, 2016). The sol-fa syllables represent seven different pitches of the diatonic scale. They are written using the first letter of the syllable:

d=doh is the keynote of the tonic

r=ray the supertonic, which is a major second above the tonic

m=me the mediant, a major third above the tonic

f=fah the subdominant, a perfect fourth above the tonic

s=soh the dominant, perfect fifth above the tonic

l=lah the submediant, a major sixth above the tonic

t=te the leading note, a major seventh above the tonic.

The movable 'doh' system in which 'doh' is the home tone in major scales and 'lah' in minor scales is to be used. Movable 'doh' is a system where every scale note is given its unique syllable that is used to sing that note every time it appears (Dilek, 2012). For example, C is 'doh' in C major; D is 'doh' in D major. In F major scale, the seven notes include F, G, A, B^b, C, D and E (often continuing on to F an octave above the first 'doh'). If we sing the scale of F major on sol-fa, the F would always be sung as 'doh', G would be sung as *ray* and so on. The whole scale looks like this on sol-fa

Example 1: Movable 'doh' for F major

F G A B^b C D E
doh ray me fa soh lah te

Example 2: Movable 'doh' for E minor

In minor scales, 'lah' is considered the tonal centre. So, for example, in E minor, the notes are E F[#] G A B C and D (often continuing on to E an octave above the first 'lah').

Example 2: Movable 'doh' for E minor

E F[#] G A B C D
lah, te, doh ray me fah soh

Hand signs

Hand signs are physical gestures that represent sol-fa. Hand signs were introduced by John Curwen in 1870. They are useful for reinforcing intervallic feelings (Dilek, 2012). It is a method where each syllable is represented with a particular hand sign (Benson, 2016). The use of hand signs presents visualisation in the space of the high-low relationship among the notes being sung (Lihan, 2018). Each hand sign represents a particular sol-fa syllable and is made in front of the body. The distance between the hand signs, to some extent, reflects the size of the interval to be sung. Octaves are shown by the same sign, with the lower 'doh' sign occurring at the waist level and the higher 'doh' above the eye level. The sign for the half steps *fah* points down to *me* while '*the*' points up to 'doh', thus emphasising the smallness of these half steps. Refer to Appendix IX

Hand signs were created by John Curwen as a way of showing the tones. Kodaly borrowed the hand signs and emphasised their use in music education. Benson (2016) affirms that Kodály also used Curwen hand

signs to represent each pitch in the scale. In the use of Hand signs, music teachers can use only one hand for pitch or both hands to show two different pitches. The music teacher can also present chord changes by use of hand signs. This study used these positions to find out how it helps the teacher trainees to visualise the distance between the pitches and match pitches given the right sound in Kenya.

Rhythm Duration Symbols

A rhythm duration syllable is a system where different syllables represent each rhythmic pattern and are counted verbally using mnemonic sounds (Dilek, 2012). The rhythm names have been used in the Kodály approach to make students understand the concept of time in music. The students clap/tap rhythmic patterns while saying the names representing individual beats in the pattern. The counting of rhythm is done using French rhythm names.

In this method, Kodály trained teachers to begin by teaching one beat, which is the quarter note and later notes of longer and shorter duration are incorporated. All quarter notes are counted as 'taa'; all eighth notes are counted as 'ta' while two eighth notes would be counted as 'ta-te'. Half notes counted as 'taa-aa' and whole notes as 'taa-aa-aa-aa'. However, a grouping of four sixteenth notes is counted as 'ta-fa-te-fe'. For example;

<u>Duration</u>	<u>French rhythm names</u>
One beat (quarter-note)	taa
Two half beats (eighth- notes)	ta-te
Four-quarter beats (sixteenth- notes)	ta-fa-te-fe

Kodály also uses rhythmic and melodic patterns that are encountered in songs and later in visual form. The rhythmic names are used to represent the duration or length of a note or rhythmic pattern. The rhythmic system of mnemonic syllables is considered an efficient means of learning rhythmic values and their relationships in a pattern. The chanting of ta-fa-te-fe is used by students of every level to master difficult rhythms. The study found the discussions and explanations of the components of the Kodály approach relevant and utilised them to highlight the key features and uses of the Kodály approach. The Kodály approach is described by the utilisation of singing as the essential vehicle for music support, society music as the underlying collection and

musicianship as the objective for all kids (Benson, 2016). West and Clauhs (2015) state that music exercises, for example, singing, creating rhythmic patterns, making cadenced examples, and playing instruments, dramatically affect perusing and education. For example, Sheridan (2015) found that in the Kodály approach, students' understanding of musical and melodic components and singing improved amazingly. The Kodály way to deal with learning music improves further learning and more prominent commitment in music components, for example, beat, tune and agreement. This agrees with Smuta (2017), who saw that the Kodály approach of training music could invigorate students' information on cadenced and melodic components through perusing and composing exercises. Students construct a superior comprehension of music ideas while encountering the Kodály approach all the more adequately when they draw in to take care of issues during class exercises (Smuta, 2017). These arguments were relevant to the current study in finding how the learning activities used in Kodály can be adopted as a variety of songs and musical activities.

Lowe (2011) highlights that learning activities such as singing folk songs are described by students as more relevant to them when they can engage practically with topics. Lowe (2011) further observes that the value students attach to any subject is enhanced through active participation in a classroom setting, hence improving academic performance. The study used this position to emphasise that learning activities, especially music activities, are designed to follow creative learning processes that suit the students.

According to Gault (2013), Kodály - based approach to teaching music utilises a clear sequence of musical concepts that are presented based on when they appear in the repertoire used during instruction. This is consistent with Gordon's theory of Music Learning, as Valerio (n.d) reported that the key component to Gordon's approach to music learning is the idea and the role of instructional sequencing. Luhan (2015) remarked that the Kodály approach uses a sequential building of concepts that enable each student of whatever age to become so musically literate that she/he understands the music without a score as well as understands the score without music. Lori (2012) affirms that the structure and content of music theory

are beautifully arranged for spiral learning, which compliments the hierarchy of overlapping and recurring theoretical concepts embedded in Kodály's pedagogical principles. The study deduced from the argument of the above-mentioned authors that Kodály is organised in a progressive fashion, while the current study investigated how Kodály is an analytical, creative learning process.

According to Smuta (2017), sequence accounts systematically for the readiness needed to learn each new musical skill. For instance, the pre-requisite for educating music experts is the acquisition of music skills and the application of the skills to learning to read and write notations in music. This sequential process teaches the music educator to gradually introduce more abstract concepts and skills through sequential learning (Carlton, 2016). Abril and Gault (2016) note that educators using the Kodály approach provide music instruction that is learner-centred and in a logical and sequential process. Hence, the approach is experiential. This implies that students participate in musical experiences and then use the experiences to develop a conceptual understanding. Kodály's approach was useful to the current study regarding the use of folk music in teaching music in primary teacher training colleges. This is because the songs used were familiar to trainees and enabled them to experience the melodic and rhythmic concepts that were taught.

Onyuike (2016) observes that instructional materials for teaching and learning music should be presented in integrated and well-structured sequences to allow learners to build upon previously acquired knowledge and skills. The study concurred with the perspectives of the various researchers and construed that the music curriculum should be organised in order to present the fundamental structure of music that may lead learners to more discoveries for themselves. However, the study maintained that music teachers should select, organise and present materials in a developmental sequence appropriate to their learners' level of performance. In addition, music teachers should use a variety of pedagogical approaches to address different learning preferences.

METHODOLOGY

The study was guided by Music Learning Theory by Gordon and complemented by the theory of Multiple Intelligences by Gardner. The study adopted mixed methods quasi-experimental research design. The selected experimental group was exposed to the music-based pedagogical approaches, while the control group continued with the traditional teaching approaches used by music tutors. The target population was 344, comprising 341 teacher trainees in their second year and 3 college music tutors. Purposive sampling was used to draw participating tutors teaching music, while census sampling was used to select teacher trainees studying music in the second year. A sample of 3 tutors teaching music and 170 teacher trainees studying music in the second year participated in the study. Questionnaires, an interview schedule, and pre-test and post-test evaluations were used in the collection of data for the study. A pilot study was done to find out the reliability of the research instruments. Cronbach's alpha was used in estimating the reliability of the instruments. A correlation coefficient value of 0.748 was achieved. The research instruments were validated with the help of the supervisors and experts from the School of Education and the School of Music and Media. Frequencies, percentages and means were used to summarise and describe data, whereas Analysis of Variance (ANOVA) and T-test were used to establish the impact. All hypotheses were tested at $\alpha = 0.05$ level of significance.

RESULTS AND DISCUSSION

Impact of the use of KPA on TTP in Basic Music Skills

The hypothesis stated that there is no statistically significant impact of the use of KPA on teacher trainees' performance in basic music skills. The impact of the use of the KPA on teacher trainees' performance in basic music skills was determined using descriptive and inferential analysis.

Descriptive Statistics on the Impact of the use of the Kodály Pedagogical Approach

The impact of the use of the Kodály pedagogical approach was measured using a set of 8 statements in the questionnaire. Respondents were requested to rate the extent to which they experienced the use of the Kodály approach in music lessons. The information

was analysed by determining the percentages, the mean and standard deviation on eight items on a 5-point Likert scale: To a Very Large Extent=5; To a Large Extent=4; To Moderate Extent=3; To a Small Extent=2; To a No Extent at All=1. Table 15 presents the results of the analysis.

Table 1: Descriptive Statistics on the use of the Kodály Pedagogical Approach

Kodály Pedagogical Approach (KPA)	To no extent at all (1)	To small extent (2)	To moderate extent (3)	To large extent (4)	To very large extent (5)	Mean	Std. Deviation
To what extent do you clap rhythmic patterns before writing them down				11.39	88.61	4.5689	.68967
To what extent do you engage in chanting the rhythms using the French system of 'ta's and 'ti's			17.72	16.46	65.82	4.5689	.068967
To what extent do you sing back melodic patterns before writing them?			22.15	22.15	55.7	4.1737	.61096
To what extent do you participate in creating/composing your own rhythms that contain particular rhythmic patterns			14.56	13.92	71.52	4.5689	.68967
To what extent do you participate in creating/composing your melodies that contain particular pitch patterns		11.54	22.44	23.08	42.95	2.7665	.66978
To what extent do you practice folk songs in your music lesson?	11.39	12.66	39.24	31.65	5.06	4.1629	.62025
To what extent do you sing melodic phrases using Hand signs in music lessons?	6.33	22.15	29.11	31.65	10.76	2.7844	.68206
To what extent do you play the simple accompaniment on pitched and non-pitched musical instruments to teach?	2.58	5.81	27.1	12.26	52.26	4.5928	.63203

Overall 4.0712 .64375

As reflected in table 1 above, the overall mean of all the respondents was 4.07 (SD=0.64) out of the maximum mean score of 5 points. This suggests that teacher trainees' experienced the use of the Kodály approach to a large extent. Teacher trainees' to a very large extent, experienced the use of the Kodály approach in the clapping of rhythmic patterns before writing them down, as indicated by 88.61 per cent of responses and the mean of 4.56 (SD=0.68), although 11.39 per cent to a large extent. Creating/composing own rhythms was experienced to a very large extent, as reported by 71.52 per cent and the mean of 4.56 (SD=0.68) while 13.92 per cent to a large extent. Chanting the rhythms using the French system to a very large extent, as indicated by 65.82 per cent and the mean of 4.5 (SD=0.68). Singing back melodic patterns before writing constituted 55.7 per cent and the mean of 4.1 (SD=0.61). However, playing simple accompaniment on pitched and non-pitched musical instruments was very much experienced, as reported by 52.26 per cent and the mean of 4.59 (SD=0.63). The respondents experienced creating/composing their own melodies to a very large extent, as was confirmed by 42.95 per cent and the mean of 2.76 (SD=0.66), while 11.54 per cent to a small extent. Singing folk songs to a moderate extent, indicated by 39.24 per cent of responses and a mean of 4.1 (SD=0.62).

Moreover, singing melodic phrases using hand signs had 31.65 per cent and a mean of 2.7 (SD=0.68). It can be observed that there was teacher trainees' greater experience of KPA in a music lesson. This concurs with Smuta (2017) that Kodály's pedagogical approach has the ability to stimulate students' knowledge of music through reading and writing activities. Students build a better understanding of music concepts while experiencing Kodály Pedagogical Approach more effectively when they engage in solving problems during class activities. This help to improve students' music performance (Smuta, 2017).

Kodály pedagogical approach improves students' understanding of rhythmic and melodic elements, and singing improves remarkably (Tabuena, 2020). This agrees with the results in Table 1, in which the teacher trainees' 'to a very large extent' experienced the use of the Kodály Pedagogical Approach in the clapping of rhythmic patterns, as confirmed by 88.6 per cent. Composing own rhythms 71.52 per cent, chanting

rhythms 65.82 per cent, singing back melodic patterns 55.7 per cent and playing simple accompaniment on pitched and non-pitched musical instruments, as indicated by 52.26 per cent. The Kodály pedagogical approach to learning music enhances deeper learning and greater engagement in music elements such as rhythm, melody and harmony (Tabuena, 2020).

The finding is supported by music tutors' interviews that they are knowledgeable in the use of the Kodály Pedagogical Approach and use it to a large extent (4). In affirmation, music tutors agreed that Kodály Pedagogical Approach is a practical-oriented approach that motivates the teacher trainees and hence improves their academic performance. This finding reinforces the idea that the Kodály Pedagogical Approach is effective in the improvements and achievements of teacher trainees studying music. In addition, responses given by the music tutors regarding the experience and the use of the Kodály Pedagogical Approach were that the Kodály approach is practical in nature and requires more time. This is supported by Goopy (2013), who noted that increased time allocation to Kodály based music instruction in a music program enhances academic results significantly. Furthermore, Gault (2016) asserts that music students experiencing the Kodály approach be given more time to train with a balance between artistic aspects of music and technical mastery of music interpretation and expressivity.

Further, responses given by music tutors indicated that in the primary teacher education (PTE) music curriculum, the practical aspect of music is not tested, and teacher trainees' do not appreciate what is not tested nationally (PTE music examinations). Hence, the Kenya National Examination Council (KNEC) should strive to evaluate both theory and the practical aspect of music in TTCs using either the formative or the summative evaluation. This is supported by Emel and Ilkrun (2018), who found that in evaluation and grading in teaching music, students should receive marks for their practical skills as well as their theoretical knowledge. According to Emel and Ilkrun (2018), what is certain is that the more practical activities the teacher issues, the more student love music and cultivate a positive and lifelong relationship with music. Therefore, the aim of the music teacher should be to bring students to love music and show

them the value of music and the pleasure of music. In short, the student will be enthusiastic and motivated. Motivation is an important contributor to academic performance (Baker, 2014).

Music Theory of Learning, on which the current study draws its principles, advocates for a sequential and orderly approach to teaching and learning music. The response given by music tutors indicates that the Kodaly approach is the most sequential and orderly approach to teaching and learning music. This is consistent with Gordon's theory of Music Learning, as reported by Valerio (n.d) that the key component to Gordon's approach to music learning is the idea and the role of instructional sequencing. The finding is in support of Smuta (2017), who observed that the Kodály approach embodies a sequential process by which a culture's folk songs and active, authentic singing games are implemented to rhythm, melody, and harmony in addition to the skills of singing, listening, moving, reading and writing notation.

See and Ibbotson (2018) remarked that the Kodaly approach uses a sequential building of concepts that enable each student of whatever age to become so musically literate that she or he understands the music

without a score as well as understand the score without music. According to Smuta (2017), sequence accounts systematically for the readiness needed to learn each new musical skill. For instance, the pre-requisite for educating music experts is the acquisition of music skills and the application of the skills to learning to read and write notations in music. This sequential process teaches the music educator to introduce more abstract concepts and skills gradually through sequential learning (See & Ibbotson, 2018).

From the foregoing discussions, Kodály Pedagogical Approach plays a very important role in teacher trainees' grasping of the content that is taught. Further, the approach ensures that systematic teaching and sequential learning take place in the classroom. It is certainly effective during classroom delivery.

Classroom Music Activities Experienced other than KPA Activities.

The question presented to the respondents required that they indicate the music activities they engaged in if they did not engage in the above Kodály Pedagogical Approach activities. Table 2 indicates the findings of the analysis.

Table 2: Classroom Music Activities other than Kodály Pedagogical Approach

Music Activities Experienced	Frequency	Per cent
Clapping	13	7.78
Clapping and dancing	4	2.40
Clapping and tapping	10	5.99
Dancing	11	6.59
Dancing and jumping	9	5.38
Movement	34	20.15
Movement and clapping	12	7.19
Movement and dancing	34	20.36
Movement and singing	15	8.98
Movement and tapping	7	4.19
Movement, clapping and tapping	6	3.59
Movement, dancing and stumping	4	2.40
Movement, dancing and tapping	4	2.40
Singing	4	2.40
Total	167	100.00

In regard to classroom music activities other than Kodály Pedagogical Approach activities, table 2 indicates that 34 (20.36%) of the respondents reported Movement, Movement and dancing, while 15 (8.98%) of the respondents indicated Movement and singing. Some 13 (7.78%) of the respondents considered Clapping, while 12 (7.19%) Movement and clapping. Dancing constituted 11 (6.59%), while 10 (5.99%) constituted Clapping and tapping, with 9 (5.38%) reporting dancing and jumping. In addition, 7 (4.19%) of the respondents indicated Movement and tapping, while 6 (3.59%) Movement, clapping and tapping. Clapping and dancing, Movement, dancing and

stumping, Movement, dancing, tapping and Singing all constituted 4 (2.4%). It can be deduced from the findings that music activities experienced in the classroom other than Kodály Pedagogical Approach activities were movement and dancing.

Additional Instructional Approaches Used by Music Tutors

With regard to the above concern, the respondents were asked to suggest additional approaches in which their tutors engaged them during music lessons. Table 3 presents the results of the analysis.

Table 3: Additional Instructional Approaches

Additional Approaches	Frequency	Per cent
Demonstration	22	13.17
Imitation	8	4.79
Imitation and recitation	5	2.99
Lecture	90	53.89
Participatory, demonstration and others	3	1.80
Lecture and participatory	4	2.40
Lecture and recitation	8	4.79
Participatory	5	2.99
Recitation and demonstration	4	2.40
Imitation and lecture	9	5.39
Non-response	9	5.39
Total	167	100.00

The findings in Table 3 indicate that most music tutors taught using the lecture method, which constituted 90 (53.89%), while 22 (13.17%) of the music tutors used demonstration. It is clear that 9 (5.39%) of the music tutors used imitation and lecture methods, while 8 (4.79%) of the tutors preferred to use lecture methods, recitation and imitations. It is evident that 5 (2.99%) of the tutors used imitations, recitation and participatory, while 4(2.4%) reported that tutors used to lecture, participatory, recitation and demonstration. In addition, 3 (1.8%) of the respondents indicated that tutors used participatory, demonstration and others, while 9 (5.39%) constituted non-response. The results show that varieties of additional approaches were used, but the least utilised were participatory, demonstration and others, while the most used was a

lecture. As observed, a high percentage (53.89%) uses lecture, which is teacher-centred. The findings concur with Maina (2015), who established that teachers in Kenya commonly use the lecture method. This is a reflection that music tutors emphasise content and knowledge acquisition in Teachers Training College (TTC). This makes teacher trainees passive with little participation, which could possibly have a negative impact on their understanding of the music curriculum content. This is contrary to the PTE music curriculum requirements that emphasise learner-centred approaches that engage the learners in musical experiences in the classroom.

Inferential Statistics for the Use of Kodály Pedagogical Approach

The impact of the use of the Kodály pedagogical approach (KPA) on teacher trainees' performance

(TTP) in basic music skills was determined by performing a One-way Analysis of Variance (ANOVA) analysis. Table 4 presents the findings.

Table 4: One-way ANOVA: Kodaly versus TRt

Source	Df	Ss	Ms	F	P-value
TRr	3	708.1	236.03	2.79	0.043
Error	147	12432.7	84.58		
Total	150	13140.9			

From Table 4 above, a one-way ANOVA revealed that the probability value (p-value) is less than 0.05 ($p=0.043$). Hence, there is a significant difference in the performance of teacher trainees in different groups (each experimental and control group). This means that each group showed significant growth in the use of the Kodály Pedagogical Approach and that training the teacher trainees' using Kodály pedagogical approach improves both music and academic performance.

This study's findings above concur with a study by West (2012), 'on teaching music in an era of 21st century high-stakes testing', who found that there was an improvement and the achievements of the students who were preparing for final external academic examinations. This finding is similar to Sheridan's (2015) observations that Kodály's approach to music teaching and learning provides music teachers with methodological techniques that can be applied in the classroom to build learners' music literacy and understanding hence increase in auditory and improvement in academic performance. A research study by Lori (2012) in Canada showed that Kodály based music instruction could result in increased academic achievement, creativity and self-esteem. These findings suggest that the use of the Kodály Pedagogical Approach improves not only students' musical growth and maturity but also their academic performance.

Studies regarding the use of the Kodály Pedagogical Approach show that there is a significant effect of the use of the approach on students' academic

performance. A study by Moralista (2016) on 'factors affecting music education in the Philippines' confirmed that the use of the Kodály approach has a positive influence on students' academic performance. Smuta (2017) states that Kodály based music instruction improves spatial recognition (reasoning skills) and non-spatial abilities (general intelligence) though not significant. Goopy (2013) observed that Kodály music instruction significantly enhanced the spatial-temporal reasoning of the learners exposed to the instruction.

See and Ibbotson (2018) reported that Kodály's approach to music learning improves IQ scores, psychomotor skills, and perception ability, as well as other academic areas such as reading and mathematics. This finding resonated with Goopy's (2013) assertion that Kodály-based music groups had reliably larger increases in full-scale IQ, whereas the non-Kodály based music groups exhibited increases in IQ. Music education programs founded on Kodály philosophy nourish learning skills and ways of thinking that correlate to other areas of learning (Goopy, 2013).

ANOVA reveals statistically significant differences between experimental and control groups, but it does not indicate where the differences between the groups lie (Eva & Oska, 2015). After a significant difference is found, it is necessary to carry out further analysis to examine which groups differ. A possible further analysis of an ANOVA was applied as post hoc tests. Hence, Fisher Pairwise Comparisons (FPC) follow-up test was used to determine if any of the means were different. Table 5 presents these findings.

Grouping Information Using the Fisher LSD Method and 95 per cent Confidence.

Table 5: Fisher Pairwise Comparisons

TRT	N	Mean	Grouping
EXP POST	44	44.810	A
EXP PRE	44	44.543	AB
CONTROL POST	43	40.67	BC
CONTROL PRE	43	40.11	C

From the analysis of the post hoc test in Table 5 above, it was established that there exists a significant difference in the mean performance of the experimental post-test, experimental pre-test, control post-test and control pre-test groups. The mean performance of experimental post-test mean scores (44.810 means) showed significant growth over the mean performance of control post-test mean scores (40.67 mean). This suggests that after treatment, the experimental group performed better in the post-test than the control group. This could be due to the emphasis on the planning, preparation and use of the Kodály Pedagogical Approach during the treatment period, where a high level of methodological control within the lesson was possible.

From the previous and the present study, the findings reveal that there is a significant gain in the use of the Kodály Pedagogical Approach on teacher trainees' performance in music leading to high mean scores, musical development and technical competencies. Kodály's Pedagogical Approach enhances the music-learning experience, and this is developed through the presentation of music concepts in a sequence. The teacher trainees' involvement in the learning process and the learning activities raised their ability levels in music performance.

DISCUSSION

The study's first objective was to determine the impact of the use of the Kodály pedagogical approach (KPA) on teacher trainees' performance (TTP) in basic music skills. The teacher trainees were first asked to indicate to what extent they experienced the use of KPA. It was found that the teacher trainees, to a very large extent, experienced the use of KPA in the clapping of rhythmic patterns, as confirmed by 88.6 per cent. Composing own rhythms 71.52 per cent, chanting rhythms 65.82 per cent, singing back melodic

patterns 55.7 per cent and playing simple accompaniment on pitched and non-pitched musical instruments, as indicated by 52.26 per cent. From these findings, there is a clear indicator that there was teacher trainees' greater experience of KPA in music lessons. A one-way analysis of variance (ANOVA) was used to test the effect of the use of KPA on TTP in basic music skills. It revealed that there was a significant difference in the control and experimental groups' performance. The data suggest that teacher trainees taught by KPA performed better in music examinations than those taught by conventional approaches. Hence, there was a positive effect of the use of KPA on teacher trainees' performance in basic music skills.

A post hoc test using the Fisher Pairwise Comparisons of means revealed the study notes a significant difference in the mean performance of the groups. The mean performance of experimental post-test mean scores (44.810 means) showed significant growth over the mean performance of control post-test mean scores (40.67 mean). This could be due to the emphasis on the planning, preparation and use of KPA during the treatment period, where a high level of methodological control within the lesson was possible. The research findings also revealed that KPA is practical in nature and needs more time. The Kenya Institute of Curriculum Development (KICD) could provide more time in the primary teacher education music curriculum for the use of the KPA in the current curriculum reform. In addition, it was noted that in the primary teacher education music curriculum, the practical aspect of music is not tested, and teacher trainees' do not appreciate what is not tested internally (Mock exams) or nationally (PTE music examination). Therefore, the Kenya National Examination Council (KNEC) evaluation and grading system for the PTE music examination should not only

receive marks for teacher trainees' theoretical knowledge but also their practical skills.

CONCLUSIONS AND RECOMMENDATION

Conclusions: The study established that Kodály's pedagogical approach has a great impact on teacher trainees' academic performance. Research studies by Tabuena, 2020; Moralista; 2016; Sheridan, 2015 and Lori, 2012 observed that the use of the Kodály pedagogical approach has a positive influence on students' academic achievement, creativity and self-esteem. This finding is similar to the responses from the music tutors and teacher trainees who studied music at the time of the research, and the analysis showed that the Kodály pedagogical approach greatly improves the teacher trainees' academic achievement. These results greatly prove that Kodály's pedagogical approach (KPA) promotes teacher trainees' participation and builds the required level of reasoning among the teacher trainees. The KPA is effective in the improvements and achievements of teacher trainees' performance in basic music skills and academics. It should be noted that KPA assists music tutors in planning more and talk less, and trainees learn more while interacting in-group activities.

Another important finding was that KPA is a practical-oriented approach that motivates the teacher trainees in a music lesson and needs more time in the primary teacher education (PTE) music curriculum. The sentiments shared by the music tutors are that more time should be given to music lessons since they are various skills that need to be taught. Obeng and Osei-Senyah (2018) indicated limited time as one of the major challenges teachers of music encounter when teaching music in selected schools in the Ashanti region of Ghana. The finding of this study concerning time allocation agrees with the findings of a study by Akuno (2005) that established that music teaching is not given priority because of the time factor. More

time should be given to basic music skills development because the teaching of music skills is usually done in a gradual manner, and many musical aspects are interconnected. The conclusion is that music teaching and learning should be given more time in the primary teacher education (PTE) music curriculum.

Further, the study revealed that in the PTE music curriculum, the practical aspect of music is not tested, and teacher trainees' do not appreciate what is not tested nationally (PTE music examinations) and internally (Mock, tests and quizzes). A research study by Jacksova (2015) notes that a lack of assessment of practical music results in the complete stagnation of musical growth. All music tutors agreed that the unexamined part of music is practical. When music examination focuses only on knowledge, it influences the acquisition of the required skills hence working against the goal of education, which is to produce an all-round individual who can fit in the society (Gantan et al., 2015). The implication is that teacher trainees are taught content that is predicted to be examined, and music tutors prefer pedagogical approaches that help in passing the examination compared to other pedagogical approaches required by education goals. The study concludes that the practical aspect of music in the PTE music curriculum should also be examined because Kenyan education is examination-based, and examination is used as a way of improving college pass rates.

Recommendation: The study recommends more planning and preparation on the use of KPA by music tutors for continual improvement in music development in teacher training colleges. Aspects of KPA should be polished from time to time; for instance, music tutors' re-training should be ongoing. This will go a long way in not only enhancing teacher trainees' music performance but also boosting their academic achievement and graduation rates.

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