

Music Preferences of Malaysian Students and KBSM Curriculum Implications

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ABSTRAK

Pilihan muzik segolongan pelajar remaja telah dikaji dari segi muzik Malaysia yang mempunyai asas etnik dan yang bebas daripada pengaruh etnik, termasuk kesan terpilih ciri-ciri pendengar iaitu kebiasaan dengan muzik dan latihan kemuzikan. Sepuluh klip muzik Malaysia yang mempunyai asas etnik dan dua puluh klip muzik yang tidak mempunyai kaitan etnik yang terdiri daripada sepuluh klip muzik popular dan sepuluh klip muzik klasik barat telah digunakan. Penilaian 139 pelajar remaja yang dipilih secara rawak dari dua sekolah kerajaan di Serdang terhadap pilihan muzik, kebiasaan dengan muzik dan latihan kemuzikan telah dikumpulkan. Hasil kajian ini menunjukkan bahawa pelajar remaja amat menyukai muzik yang bebas daripada pengaruh etnik, khususnya muzik popular. Kebiasaan dengan muzik telah ditunjukkan banyak mempengaruhi pilihan muzik terhadap muzik Malaysia yang mempunyai asas etnik dan bebas daripada pengaruh etnik. Implikasi penemuan ini adalah dalam bentuk cadangan untuk memperkenalkan strategi baru dalam pendekatan kaedah pengajaran dan persediaan bahan mengajar untuk subjek muzik di bawah Kurikulum Bersepadu Sekolah Menengah iaitu KBSM.

ABSTRACT

Preferences were investigated of a sample of teenage students for ethnic-based and non ethnic-related Malaysian music, and the effects of selected listener characteristics: familiarity and musical training. Ten excerpts of ethnic-based Malaysian music and twenty excerpts of non ethnic-related music comprising ten popular music excerpts and ten Western art music excerpts were utilised. Ratings of preferences, familiarity, and musical training were gathered from 139 randomly selected teenage students of two public schools in Serdang. The results showed that the teenage students had a strong preference for non ethnic-related music especially popular music. Familiarity proved to be a significant determinant of preferences for both ethnic-based Malaysian music and non ethnic-related music. Implications of these findings include the proposal of new strategies in teaching approaches and preparation of learning materials for the music subject of the Malaysian Integrated Secondary School Curriculum or KBSM.

INTRODUCTION

The curriculum of school-based music education in Malaysia has always been based on music examples selected by Education Ministry officials, without taking into consideration music preferences of the target learner groups. The officially documented objectives (Ministry of Education 1998) of the Malaysian secondary school music education curriculum are as follows:

- To enable students to express their perceptions, feelings and ideas through speech, writing and creative behaviour.
- To develop communication and interaction abilities as well as to build musical skills and understanding through performance.
- To widen the scope of awareness and sensitivity towards what is seen, heard, touched, felt and experienced.
- To appreciate, value, analyse and discuss musical compositions and performances.
- To increase students' knowledge of the folk music of the communities in Malaysia and related cultures, including music from other cultures.

In the light of these objectives, it is expected that the content and approaches of the music curriculum of the *Kurikulum Bersepadu Sekolah Menengah* or Integrated Secondary School Curriculum, popularly known as KBSM, would be geared towards effectively fulfilling the specific targets.

Two primary factors should be considered when selecting the actual music examples to be used as teaching material within the school music curriculum: firstly, what elements actually constitute the music culture of the community concerned (Chan 1998), in this case what exactly makes Malaysian music Malaysian; and secondly, what music do the students listen to in reality, in other words what is their actual music preference (Temmerman 2000). When these two factors have been addressed, then only can an effective curriculum be developed.

This paper presents the results of a survey done on music preferences of teenage students in Malaysia, with specific reference to ethnic-based and non ethnic-related Malaysian music, including the effects of the selected listener characteristics of familiarity and musical training. It is hoped that the results obtained through this research will be useful in future KBSM music curriculum reviews, for reasons presented in the following section.

Review of Related Literature

Asmus (1989) found that affect for music was one of five factors that significantly explained motivation in music learning; the other four were effort, background, classroom environment and musical ability. Consequently, an important objective in the planning of any musical

programme is to acknowledge the learners' interests in and attitudes to different musical activities (Temmerman 2000). Fung (1995) concluded that music preference acts as a mediating agent in the process of music learning or as a springboard for further music learning so that a novice may develop into a musically educated individual with sound aesthetic judgement. This indicates that the knowledge of music preferences is important to music educators. However, other than research done by Yeoh (1999), little has been published on music preferences of Malaysians.

To return to the objectives of the KBSM music curriculum, it is apparent that knowledge of Malaysian students' music preferences would greatly aid in motivating students in the learning of music, specifically in attaining the first four objectives listed in the officially documented KBSM objectives. In terms of the fifth objective listed, that is to increase students' knowledge of the folk music of the communities in Malaysia, something of the background of Malaysian musical culture must first be presented before a concrete plan to fulfil this objective can be effectively drawn up.

That Malaysia is truly a multi-cultural society is evident from the peaceful co-existence of its different major ethnic communities, each adhering to its own distinctive cultural practices while yet attaining a degree of integration and assimilation. These distinctive cultural differences are apparent in food, clothing, reading material, religious practices, and of course, music. The various Malaysian music genres have been discussed at length by Matusky and Tan (1997), Ang (1998) and Ang *et al.* (1998) and will not again be presented here. Suffice to say, the music of Malaysia, as is also true of other cultural elements of Malaysia, has long been divided along ethnic lines. This division is also apparent in the fifth of the officially documented KBSM music curriculum objectives, which highlights the fact that there are indeed different communities in Malaysia, each with their own different folk music. In view of this, it is reasonable for this study to focus on the music preferences of teenage Malaysian students in terms of 'ethnic-based' and 'non ethnic-related' music.

One other significant point must be considered when studying the music preferences of any group of listeners. It has been found that

familiarity and musical training both significantly influence musical preferences. (Siebenaler 1999; Finnas 1989; LeBlanc 1982, 1987). These two factors must thus be considered when studying the music preferences of teenage Malaysian students.

METHODOLOGY

The research involved three active stages. The first stage was the development of the Listening Test on Compact Disc (CDLT) to contain the music stimuli. Ten excerpts of ethnic-based Malaysian music were randomly selected: *Gamelan*, *Dikir Barat*, *Ulik Mayang*, *Dondang Sayang*, *Joget*, *Keroncong*, *Ghazal*, *Dangdut*, a Chinese Classical and an Indian Classical piece. Twenty excerpts of non ethnic-related music were also used, ten each of Western art music and popular music. The former were classified according to conventional divisions based on historical eras: Baroque, Classical, Romantic, Early Twentieth Century and Contemporary. Similarly, popular music was represented by a variety of genres: Jazz, Country, Latin, Disco, Metal Rock, Western Pop and Malaysian Pop. The excerpts were randomised so that subjects would not receive an expected flow of music examples of one type after another. The length of the CDLT was limited by the concentration span of expected respondents. A previous study (LeBlanc *et al.* 1988) has shown that subjects tend to be restless if listening tests exceed 30 minutes. The running time for all 30 excerpts was therefore set at 22 minutes. Each excerpt ranged from 23-54 seconds, with an average length of 40 seconds, depending on the logical ending of the musical phrase.

Stage Two was the administration of the CDLT on the randomly selected subjects from two secondary schools in Serdang. Their ages ranged from 12 to 14 years (n=139), the sex ratio was 66 male to 73 female and the ethnic composition was 41 Malays, 78 Chinese and 20 Indians. The respondents provided information concerning music preferences, familiarity and musical training. Preference was anchored at 1 ('hate it') to 7 ('love it') with 4 signifying a neutral score; familiarity was on a 3-point scale of 1 ('not familiar'), 2 ('somewhat familiar') and 3 ('know it well'). 'Total Preference' was a summation of preference scores for all 30 excerpts of a respondent. Mean Preference values, 'Preference Ethnic' and 'Preference Non

Ethnic', were calculated for ethnic and non ethnic-related music, by dividing the first summation of preferences of a respondent for ethnic music excerpts by ten, and the second summation of preferences for non ethnic-related music excerpts by 20 since there were ten excerpts of the former and 20 of the latter.

The extent of musical training of the respondents was defined and calculated in the following manner. 'Musical Training' is a summation of the number of years of each area of training (general primary school music or 'KBSR', co-curriculum, and instrumental) added to the grade attainment of practical plus theory examinations plus an extra point if the subjects availed themselves of informal training. The assumption here is that students with formal instrumental and theory lessons are expected to be more extensively trained than those with only a cursory knowledge of music theory, and that students who took and passed formal music examinations would have more intense training than those who did not enrol for such examinations. Other studies that used a similar method to measure musical training were Rawlings *et al.* (1995) and Yeoh (1999).

The third stage was the data analysis. Since the sample passed the Kolmogorov-Smirnov Test of Normality for 'Total Preference', 'Preference Ethnic' and 'Preference Non Ethnic' (the Kolmogorov-Smirnov Statistic values were .050, .072, and .056 respectively, corresponding to Sig. values of .200, .072, and .200), it was concluded that the whole random sample came from a normally distributed population. The reliability for music preference and familiarity for all 30 excerpts were consistently high and acceptable (Preference: n = 139, Alpha = .8464; Familiarity: n = 139, Alpha = .8799).

RESULTS

The results showed that the respondents had a strong preference for non ethnic-related music (mean=4.4363, S.D.=0.7048) as compared to ethnic-based Malaysian music (mean=3.1799, S.D.=1.0499). The top ten preference ranks were for non ethnic-related music, eight for popular music and two for Western art (Table 1). Respondents rated ethnic-based Malaysian music less favourably. Eight of the ten least-preferred excerpts were ethnic-based Malaysian items, while two were Western art excerpts. A t-test showed that the difference in the mean values of ethnic-

TABLE 1
Music excerpts and preference rankings

Order	Title	Composer/Performer	Mean	Rank
Non-ethnic (Popular)				
1	The Power of Love	Celine Dion	5.65	2
4	Coward of the County	Kenny Rogers	4.63	8
7	Star Wars	John Williams	5.37	4
10	When The Saints Go Marching In	Louis Armstrong	4.96	6
14	Bad Seed	Metallica	4.57	9
16	Night fever	B, R and M Gibb	5.42	3
18	Beat It	Michael Jackson	6.02	1
22	Didn't We Almost Have It All	Whitney Houston	5.3	5
25	Getaran Jiwa	P. Ramlie	3.67	19
29	<i>Rhumba De Burros</i>	Ignatius Jones	4.20	11
Non-ethnic (Art)				
2	Brandenburg Concerto No. 4 in G	J.S. Bach	3.73	18
5	<i>Livre Pour Cordes</i>	P. Boulez	2.69	29
8	Excerpt from <i>La Boheme</i>	Puccini	3.17	23
11	Excerpt from <i>Die Zauberflote</i>	W.A.Mozart	4.17	13
19	Excerpt from Nutcracker Suite	Tchaikovsky	4.17	13
23	Three American Pieces	Lukas Foss	4.26	10
26	Symphony No. 5 in C Minor	L.Beethoven	4.75	7
27	Bassoon Concerto in E Minor	Vivaldi	4.09	15
28	Fanfare for the Wedding of Princess Elizabeth	Bax	3.86	17
30	Children's Corner Suite	C. Debussy	4.02	16
Ethnic Malaysian				
3	<i>Ulik Mayang</i>	Rohani Aziz	3.30	22
6	<i>Irama Gamelan Kyai pranaja</i>	Minni Ang	3.46	21
9	<i>Joget Pahang</i>	Saloma	3.60	20
12	Dangdut: <i>Hati yang luka</i>	Amelina	3.13	24
13	Indian Classical: <i>Tal Posta</i>	Zakir Hussain	3.02	25
15	<i>Dikir Barat</i>	Kumpulan Kijang Emas	2.99	26
17	<i>Seri Mersing</i>	Sharifah Aini	2.45	30
20	Keroncong: <i>Bengawan Solo</i>	Hetty Koes Endang	2.95	27
21	Chinese Classical: <i>Yu Da Ba Jiao</i>	Anonymous (Folksong)	4.19	12
24	<i>Dondang Sayang</i>	Rahim Jantan	2.70	28

Note: 'Mean' is the Preference Mean for the music excerpt, with '1' for 'Hate It' and '7' for 'Love It'. 'Rank' is the Preference Rank; there is a tie at position #13.

based and non ethnic-related music was significant ($t = -11.715$, $p = .0001$, two-tailed).

The Pearson product-moment correlation analyses showed that musical training did not correlate significantly with music preferences of teenage students, although a previous study carried out on undergraduate subjects showed slight positive correlation between the extent of musical training and preference of non-ethnic related music (Yeoh 1999). However, Familiarity showed a positive correlation, with r at .302, between 'Total Preference' and 'Total Familiarity'; a stronger correlation between 'Preference Ethnic' and 'Familiarity Ethnic' with

r at .574; and a positive correlation, r at .239, between 'Preference Non Ethnic' and 'Familiarity Non Ethnic' (Table 2). The study has confirmed familiarity as an important variable affecting preferences for ethnic-based Malaysian music and non ethnic-related music.

The study has provided answers to the two main questions: 'What types of music are preferred by teenage Malaysian students?' and 'Did musical training or familiarity influence music preferences of teenage Malaysian students?' To the first, respondents indicated a strong preference for non ethnic-related music especially popular music, while preference for

ethnic-based Malaysian music was just below the neutral range. As for the second question, musical training did not show correlation with music preference but increasing familiarity did seem to correspond with increasing music preferences (Table 2).

DISCUSSION

Familiarity and Preference

Positive correlation between familiarity and preference in this research is consistent with previous research (Fung 1996; Siebenaler 1999). Students liked what they knew, and liked less what they were not familiar with. Preference for non ethnic-related music, that is popular and Western art music (Table 1) is consistent with previous studies (Larsen 1987; LeBlanc 1979, 1981; LeBlanc *et al.* 1996; Webster and Hamilton 1981). Preference for popular music could be due to liking for the romantic content of the lyrics (LeBlanc 1981), or admiration of famous artistes like Michael Jackson and Celine Dion, but is most likely due to the high level of familiarity the students had with this type of music. Popular music is music of the mass media. In Malaysia, this type of music is prevalent over all radio stations and television channels. It is played incessantly in shopping malls and hawker centres, and on public transportation vehicles such as buses and taxis. Indeed, other kinds of music are rarely heard over any of the media mentioned here. It is no wonder then that Malaysian teenagers, indeed Malaysians of all age groups, are most familiar with popular commercial music. This familiarity thus, significantly influences Malaysian teenagers' preference for popular music.

As for ethnic-based Malaysian music, the most preferred seemed to be the Chinese Classical piece, followed by Joget Pahang,

Gamelan and Ulik Mayang. It must be noted however that out of the 30 excerpts played in total, 9 of the 10 ethnic-based music excerpts occupied positions 21 to 30 in terms of students' preferences, indicating a marked dislike of this music by the teenage students. Given the fact that although the sample population passed the test of normality with regards to music preferences ('Total Preference', 'Preference Ethnic', and 'Preference Non Ethnic'), the sample was also not proportionately representative of the ethnic composition of the country. Four intact classes from two schools were randomly selected for the test, and the three major races were represented within the sample. However, where the national ratio of Malays to Chinese to Indians is approximately 55:35:10 the corresponding ratio of the sample population was 30:56:14. The result could thus be due to the influence of familiarity: since the Chinese were disproportionately represented it might be expected that of the ethnic-based music presented, the Chinese Classical example would be the most preferred of the entire selection as the greatest proportion of the sample population were familiar with music of a similar genre. Besides this, there is a possibility of the influence of instrumental timbre (a variable not considered within this study) since both the Chinese Classical piece and Gamelan are instrumental excerpts. The preference for instrumental over vocal timbre has been documented in non-Western music (Fung 1995). All these points having been discussed, it is nevertheless true to say that the sample population of teenage Malaysian students did not in general prefer ethnic-based Malaysian music. This result was of course also influenced by the students' lack of familiarity with this type of music. Again, this lack of familiarity is not surprising given the fact that it is not easy in

TABLE 2
Correlations between music preferences and familiarity

Pearson Correlation	1	2	3	4	5	6
1. Total Preference	-			.302**		
2. Preference Ethnic		-			.574**	
3. Preference Non Ethnic			-			.239**
4. Total Familiarity				-		
5. Familiarity Ethnic					-	
6. Familiarity Non Ethnic						-

Note: **. Correlation is significant at the p = 0.01 level (2-tailed).

Malaysia to hear these ethnic-based music pieces in everyday life.

Understanding Malaysian Musical Culture

Random observations of Malaysian lifestyles reveal that music making as an activity is carried out by only a very tiny fraction of the Malaysian population. Singers and musicians are not found ubiquitously as in many other countries such as in Europe or Latin America. Malaysians generally listen to their music, not perform or sing it. In this context, it can be easily understood why popular or commercial music has dominated Malaysian musical culture - this is the music that is available for listening, available through the mass media - this is the music that wants to be heard so that it can be sold. Folk music, which is essentially what ethnic-based Malaysian music is all about, is, on the other hand, essentially a music of the people for the people. It is a music to be practised, to be sung, to be performed, and not merely to be listened to through recordings. It does not generate huge profit, and is thus not promoted by the mass media. Given the fact that most Malaysians do not in general sing, perform and practice music as a part of their everyday living, it is no wonder then that ethnic-based music is not easily heard and is thus unfamiliar to many Malaysians, teenage students in particular.

The Significance of Music Characteristics

This research did not take into account the influence of specific music characteristics on music preferences; however, results gained were indicative that these characteristics did influence preferences. This conclusion may be drawn from the fact that in spite of the lack of familiarity of the respondents with Western art music, these excerpts received reasonably high preference rankings (mostly below 20). Of these, the Baroque, Classical and Early Romantic excerpts gained the highest preference ratings among the respondents.

The significant factor differentiating this music from others (popular and ethnic-based music) is the complexity of the music. Popular music comprises a main melody accompanied harmonically and rhythmically by a small group of instruments; ethnic-based folk music consists of simple heterophonic structures while ethnic-based popular music is similar in style to mainstream pop, but with certain ethnic elements

added. Art music consists of melodies, counter-melodies, contrapuntal movement and other intricate melodic, harmonic and rhythmic complexities. Add these complexities to the pleasing consonance of Baroque, Classical and Early Romantic well-defined musical forms and timbres - even Malaysian teenage students lacking familiarity with the music indicate a mild preference for it, apparently due to these significant musical characteristics.

CONCLUSION

Implications for the KBSM Music Curriculum

We have seen the results of the survey on the music preferences of teenage Malaysian students, and we have discussed at length the meaning of these preferences and its causes. What remains is to draw implications from these results and discussions for the KBSM music curriculum.

Let us once again return to the objectives set by the Malaysian Ministry of Education for music education within the Malaysian school system. The first four objectives mentioned are all to do with general music abilities including appreciation, knowledge and performance skills, while the fifth objective deals specifically with improving appreciation, knowledge and presumably skills related to ethnic-based Malaysian folk music.

We have already seen that teenage Malaysian students prefer popular music over any other sort of music, but that this preference is strongly influenced by their familiarity with the music. In contrast, and in direct confrontation with the fifth objective of the KBSM music curriculum, teenage Malaysian students do not like and are not familiar with ethnic-based Malaysian music.

To attain the objectives of the KBSM music curriculum, strategies based on these research findings must therefore be ascertained. Broad strategies are thus proposed here and have significant implications on the teaching approaches and the learning materials used in the KBSM curriculum.

Strategies

The first strategy proposed is to use the vocabulary of the familiar, which is also the preferred, (in other words to use popular commercial music as classroom learning material) to teach the basic concepts of expression, communication and interaction while building musical skills and understanding (KBSM

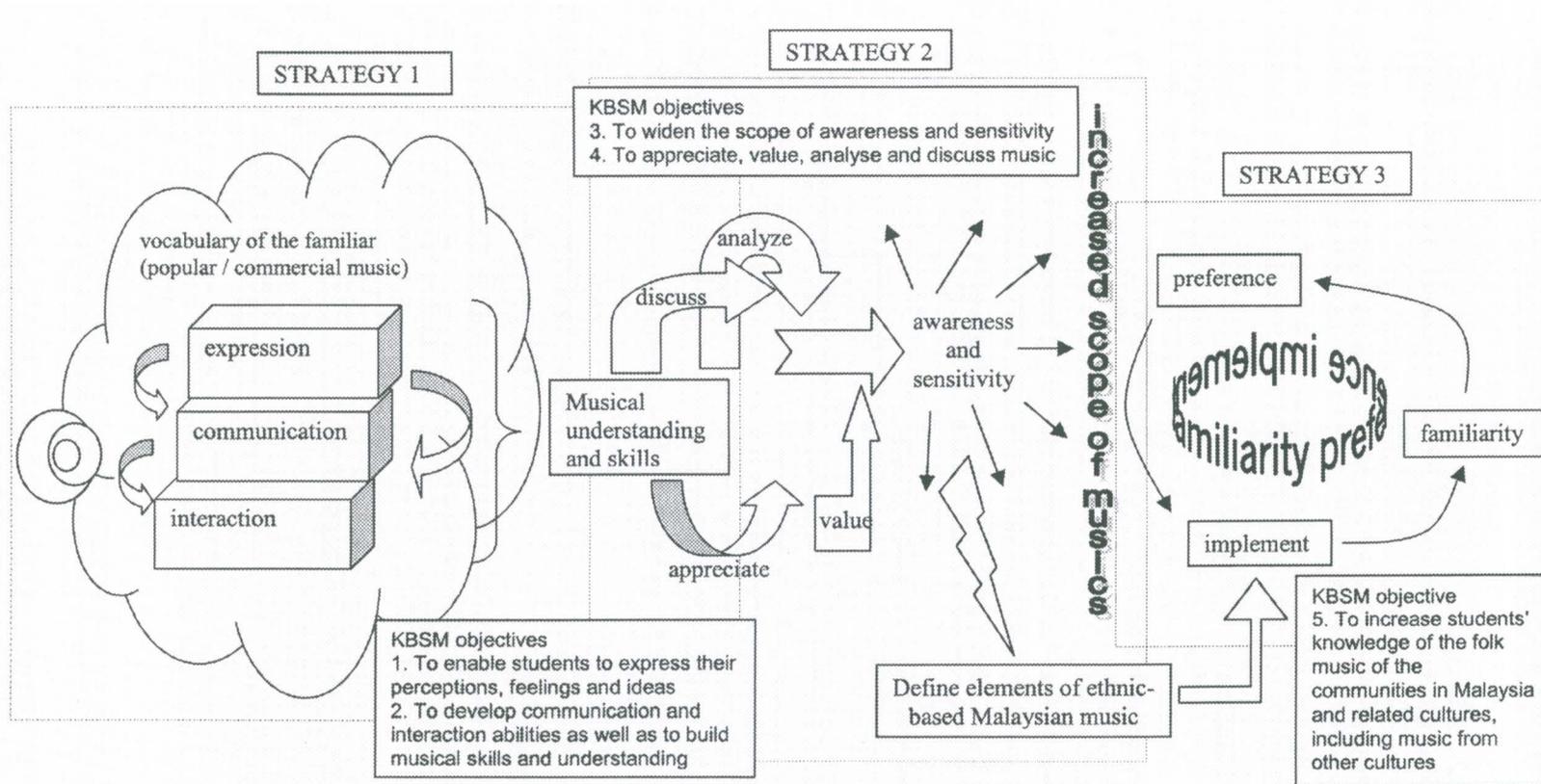


Fig. 1. Strategies to attain the five objectives of the KBSM music curriculum

music objectives 1 and 2), using these to also bridge the gap with the unfamiliar.

The understanding gained in this way would enable learners to appreciate, value, analyse and discuss musical compositions and performances (KBSM music objective number 4), thus widening the learners' scope of awareness and sensitivity (KBSM music objective number 3) through increasing the types of music that are studied. This would naturally lead up to the second strategy proposed: to define the actual elements that comprise authentic Malaysian music, including how it is experienced.

The third strategy is to gradually implement these music practices in the learners' daily lives, thus breeding familiarity, which in turn increases preference, which in its turn motivates learners to further improve their knowledge and skills. In this way, KBSM music objective number 5 can be attained.

The three strategies outlined above enable all KBSM music curriculum objectives to be attained effectively and with long lasting results. With familiar and well-liked music as its starting point, classroom music education becomes an exciting adventure for enthusiastic students. What this approach necessitates however is a review of the existing teaching approaches and learning materials used within the KBSM music environment. Fig. 1 summarises the strategies for effectively attaining the objectives of the KBSM music curriculum based on the research findings of teenage Malaysian students' music preferences.

Suggestions for Further Study

Further detailed research on music preferences of Malaysian students should be carried out for much larger sample populations, and across different age groupings. Other factors influencing music preferences should also be studied, including further detailed research on the effect of musical training, cultural background, familiarity and music characteristics. Studies should also be carried out in the Malaysian context as to the effect of music preferences on music learning attitudes and achievements.

REFERENCES

- ANG, M. 1998. *Malaysian Music - A Comprehensive Discussion on the Different Types of Music Found in the Country: Contemporary Art Music, Classical Music, Syncretic Music and Folk Music*. 64 p. Serdang: Conservatoire Productions.
- ANG, M., O. ABU TALIB, A.K. RAMANI, S.L. GAN and P. MATUSKY. 1998. A layered architecture for music: Malaysian music on the world wide web. *Organised Sound, International Journal of Music Technology* **3(2)**: 101-15.
- ASMUS, E. P. 1989. The effect of music teachers on students' motivation to achieve in music. *Canadian Journal of Research in Music Education* **30**: 14-21.
- CHAN, C.J. 1998. Malay traditional folk songs in Ulu Tembeling: Its potential for a comprehensive study. *Pertanika J.Soc.Sci.&Hum.* **6(2)**: 101-111.
- FINNÄS, L. 1989. How can musical preferences be modified? *Bulletin of the Council for Research in Music Education* **102**: 1-58.
- FUNG, C. V. 1995. Music preference as a function of musical characteristics. *The Quarterly Journal of Music Teaching and Learning* **6(3)**: 30-45.
- FUNG, C. V. 1996. Musicians' and non-musicians' preferences for world musics: Relation to musical characteristics and familiarity. *Journal of Research in Music Education* **44(1)**: 60-83.
- LARSEN, J. 1987. Family Influences on Musical Opportunities. In *Music and Child Development* ed. J. C. Peery, I. W. Peery and T. W. Draper, p. 237-248. New York: Springer-Verlag.
- LEBLANC, A. 1979. Generic style music preferences of fifth-grade students. *Journal of Research in Music Education* **27(4)**: 255-270.
- LEBLANC, A. 1981. Effects of style, tempo, and performing medium on children's music preference. *Journal of Research in Music Education* **29(2)**: 143-156.
- LEBLANC, A. 1982. An interactive theory of music preference. *Journal of Music Therapy* **19(1)**: 28-45.
- LEBLANC, A. 1987. Development of Music Preference in Children. In *Music and Child Development* ed. J. C. Peery, I. W. Peery & T. W. Draper, p. 137-157. New York: Springer-Verlag.

- LEBLANC, A., J. COLMAN, J. MCCRARY, C. SHERRILL and S. MALIN. 1988. Tempo preferences of different-age music listeners. *Journal of Research in Music Education* **36(3)**: 156-168.
- LEBLANC, A., W. L. SIMS, C. SILVOIA and M. OBERT. 1996. Music style preferences of different-age listeners. *Journal of Research in Music Education* **44(1)**: 49-59.
- MATUSKY, P. and S. B. TAN. 1997. *Muzik Malaysia: Tradisi Klasik, Rakyat dan Sinkretik*. Penang: Asian Center & National Art Academy.
- MINISTRY OF EDUCATION. 1998. *Syllabus of Secondary School (KBSM) Music Education*. Kuala Lumpur: Malaysian Ministry of Education.
- RAWLINGS, D., M. HODGE, D. SHERR and A. DEMPSEY. 1995. Toughmindedness and preference for musical excerpts, categories and triads. *Psychology of Music* **23**: 63-80.
- SIEBENALER, D.J. 1999. Student song preference in the Elementary Music Class. *Journal of Research in Music Education* **47(3)**: 213-223.
- TEMMERMAN, N. 2000. An investigation of the music activity preferences of pre-school children. *British Journal of Music Education* **17(1)**: 51-60.
- WEBSTER, P. R. and R. A. HAMILTON. 1981. Effects of peer influence, rhythmic quality, and violin timbre on the musical preferences of fourth, fifth and sixth grade children. *Contributions to Music Education* **9**: 10-20.
- YEOH, M. P. 1999. Music preferences of undergraduate students in a multi-musical country. Unpublished Masters Thesis, Universiti Putra Malaysia.

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