Chapter I

INTRODUCTION
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OVERTURE

Music once held the central place in education and was viewed as the symbol of the highest educational aspiration and conceptualisation. Education was conceived not merely as a schooling process with limited cognitive objectives, but as the process of the soul attempting its deepest realisation. This quest, like Socrates' concept of ἴδιαν ἀγαθόν (philosophia = love of wisdom), is attainable by the seeking person, though the goal of complete knowledge can never be realised in the life of man. But the seeking is still worth the effort and here lies the essence of education. In recent times Tagore gave expression to the idea of deep spiritual longing and striving through music education in a beautiful poem:

<table>
<thead>
<tr>
<th>hothā</th>
<th>ye gān gāyite āsa āmāra</th>
<th>The song that I came to sing remains unsung to this day.</th>
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<tr>
<td></td>
<td>hay ni se gān gāuya—</td>
<td>I have spent my days in stringing and in unstringing my instrument.</td>
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<tr>
<td>ājī</td>
<td>kebali śura sādhā, āmāra</td>
<td>The time has not come true, the words have not been rightly set;</td>
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<tr>
<td></td>
<td>kebali gāyite chāuyā]</td>
<td>only, there is the agony of wishing in my heart.</td>
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<tr>
<td>āmār</td>
<td>lāge nāl se śura, āmāra</td>
<td>The blossom has not opened; only the wind is sighing by.</td>
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<td></td>
<td>bāndhe nāl se kathā,</td>
<td>I have not seen his face, nor have I listened to his voice;</td>
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<tr>
<td>sudhu</td>
<td>prānērai māghakhāne āchhe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gānēra vyākulaḥā ]</td>
<td></td>
</tr>
<tr>
<td>ajo</td>
<td>phote nāl se phul, sudhu</td>
<td></td>
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<tr>
<td></td>
<td>vahechhe eka āhūyā ]</td>
<td></td>
</tr>
<tr>
<td>āmi</td>
<td>dekhi nāl tāra mukh, āmi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>surī nāl tāra bāgī,</td>
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There are other poems which represent the fulfilment rather than the seeking, where the poet presents music in the role of realisation of the highest:

When thou commandest me to sing it seems that my heart would break with pride; and I look to thy face, and tears come to my eyes.

All that is harsh and dissonant in my life melts into one sweet harmony – and my adoration spreads wings like a glad bird on its flight across the sea ... 

I touch by the edge of the far-spreading wing of my song thy feet which I could never aspire to reach.

Drunk with the joy of singing I forgot myself and call thee friend who art my Lord.

In such poems Tagore is following the tradition of the ecstatic mystical-musical adoration carried by the wandering singers, both sacred and secular. A typical one is the Baul Beggars song cited by him (Tagore, 1926, p.87):

I am pouring forth in living notes of joy and sorrow by your breath.
Morning and evening, in summer and in rain, I am fashioned in music.
Yet should I be wholly spent in some flight of song
I shall not grieve, the tune’s so precious to me.
This tradition has been documented in South Indian cultural history as early as the seventh century, and in North Indian culture some centuries later. The girl-saint Andal offers the garland of songs (*sangattamizh mālai muppatum*) to Vishnu in rapturous love and offers Him the flower-garlands after wearing them herself. Her thirty *Tiruppāvai* songs are perhaps the most sung pieces in Tamil Nadu during December-January. Meera’s ecstatic love-song worship is popular throughout India. Male poet-musicians like Appar, Sambandar, Sundarar and Manickavacakar (7th to 9th century) sing with an intimacy representing the soul’s deep quest as well as realisation. In the north, Tulasidas, Kabirdas and Surdas took up the tune some centuries later. The tune is taken up in the south again and becomes most conscious with Purandara dasa and Tyagaraja.

Many early cultures consider music as the harmonious voice of creation, an echo of the invisible word. The *Harmony of the Spheres*, though taught first in Greece by Pythagorus, was a concept known in Ancient Egypt. The Greeks also considered music – in the broadest sense – as the essential element of human education. The Hebrews were sensitive to the spiritual basis of music as seen from numerous references like: Lord Jehova’s poser to Job (Chapter 38): “Where was thou when the morning stars sang together?”, David’s tuneful praise: “The heavens declare the glory of God.” (Psalm 19, celebrated in classical Western music in Haydn’s *Creation*). The Logos (Word) which was instrumental in creating the world is interpreted in musico-mystical terms (Tame, pp.214-215). The still greater mystery which has opened this spiritual creative source to all human beings is that the *Word was made flesh and dwelt among us; and we beheld his glory,* the glory as of the
only begotten of the Father, full of grace and truth (John 1: 14). Sufi dervishes blow the singh (a horn) or the shankha (a shell) to attune themselves to the spiritual qualities of the One Tone and to allow the creative products to flood forth.

The ancient Chinese, according to Tame (p. 40), considered music as

the harmony of heaven and earth, while rites are the measurement of heaven and earth. Through harmony all things are made known; through measure all things are properly classified. Music comes from heaven; rites are shaped by earthly designs.

When an emperor died his successor would call upon the imperial music officer to assist him in establishing the new huang-chung (the yellow bell), the foundation note on which the modes or scales were built. "If things did not go perfectly well, it was believed that there was something fundamentally wrong with the music of the day" (Bondi et al, ed. p.31)

In the Indian vedic cosmo-conception

music holds an important place ... Since it consists of audible sound or abata, it is viewed as being a manifestation of anabata (OM). Therefore, music, like all audible sound, contains some of the very power, energy and consciousness of the word of God. (Tame, p. 172)

Bondi et al (p.35) note that "The search for unity found in Asian music is also prominent in Arab music but it is perhaps less concerned with music as an exercise towards revelation than the Hindu marga." In Africa, music and dance are integrally related to life. It expresses man's relationship with Gods, the emotions, and the order of the universe. This tendency can be found in almost all early cultures.
Music, varying from the primitive drum and horn, through group singing activities which bind social groups, to elaborations in various classical forms, Western and Indian, has been cultivated by sacred and secular traditions, and has constituted a powerful factor in the evolution of human culture. Music has been recognised as a communicator, as a therapeutic force, as an encoder, a multiplier of states of consciousness.

Reimer refers repeatedly to building oneself spiritually through music – building celestial houses with stones through ‘always-new’ music in unusable space (der Musik, immer neu, aus dem bubendsten steinen baut im unbrauchbaren Raum ihr vergottischen Haus.)

Hugo von Hofmannsthal (p. xxv) is of the view that the most crucial thoughts and feelings cannot be rendered in words, but only intimated by gesture, music or silence. The conventions of speech are masks that conceal more than they convey; “Form is mask, but without form, neither giving nor taking from soul to soul”.

The unified and central role of music in sacred and secular education and culture which was ‘loved long since and lost awhile’ tended to be recaptured in some progressive music education systems abroad during the past three or four decades. The theme of the present exploration is to explore the possibility of using this potential force for improving education in India, and to create the research base for such transformation.
SIGNIFICANCE OF THE STUDY

There is a complaint that the formal school is a dull, dreary place where children are denied the natural, self-sustaining, animated, expressive modes of growth and development, and forced to work prematurely on tasks and studies suitable for more mature levels of development. Since they don't understand most of what they study they commit it to parrot-like rote memory in mechanical, meaningless, joyless manner. Philosopher-literateurs like Rousseau and Rabindranath Tagore have called attention to the absurdity of this 'schooling' process, which can be anti-educational, because the function of true education is to 'draw out' rather than to 'stuff in'.

Though music has been central as an educational device in early times, the establishment of the formal school, cut off from the streams of life, resulted in music being excluded from schooling or at best given an inferior place. Traditional Indian education had music inbuilt into literary as well as non-literate folk models. But the formally established school education which has been allowed to shape the destiny of India for nearly a century and a half put the focus on formal academic studies. The aim of many who underwent this education was to take up some white-collar job, preferably in government service. The mechanical routine of the school was an excellent preparation for clerical and similar jobs in offices. A large number who entered the portals of the school were not able to cope with this drab routine and the incomprehensible academic tasks, and fell by the wayside. The relatively smaller number who completed school education and later collegiate education successfully qualified for the coveted white-collar jobs. In recent times
the market for the white-collar jobs has dwindled so much that the ‘future’ for the sake of which most people underwent a mechanical and tortuous education, also eluded them, and they have suffered the hard, dull schooling process for nothing.

The job-preparatory education offered in the school was neatly divided into ‘gong-regulated periods and book-regulated subjects’. To give some relief from the travails thus inflicted on very young children, music and some other arts were also introduced in the school, especially in the lower classes. But then these were not introduced in the true spirit of art or music, but as ‘subjects’ of lower prestige level, or as ‘pleasant interludes between periods of serious work’. In the upper classes, the motive of preparation for the school-final examination dominated. So teachers who had not ‘covered’ the portions in their subjects were often allowed to encroach on the music period. A recent trend noticed in Kerala is that while provision has been made in the time-table for teaching music up to Class 9, posting of the new music teacher is not made if the old teacher retires or gets transferred. Officialdom tends to think that this is not only a saving of cost, but also a means of providing more time for the ‘examination subjects’. Hence the unwritten principle has come to be accepted: “The less the music in school, the greater is the efficiency” – in terms of preparation for the examination. Percentage of pass in the examination and long hours of drudgery inflicted with an eye on examination results is even identified with quality in education.

Private aided schools tend to retain the posts of music teachers as far as it lies in their power, but the reason is often extra-musical. The larger government schools also tend to retain music teachers, though reduced in number. Earlier studies have
shown (Venugopu, 1991 - vide Chapter III), that even when a school has one or more music teachers, it does not follow that music is taught regularly to all pupils as per the time table. The music teacher’s job is often limited to preparing a handful of pupils for singing the prayer song for the assembly and the National anthem which marks the closure of the day’s routine, and sometimes to coach the competitors for the annual music festival conducted at state level. In many schools even these functions are done by other teachers interested in music and by pupils’ nonformal organisations in ‘the fringe of the school’. Even where these functions are satisfactorily conducted, there is no evidence to show that a music climate permeates the school life. The ‘showpiece’ or ritual function of singing by a select few may be more prevalent than a real musical climate.

Even where joyful singing is experienced in a school by considerable number of pupils, the joy may not be permeating into the total school climate. A casual walk through the corridors and verandas of a typical school in Kerala would reveal the picture of class after class engaged in routine academic work, consisting mostly of verbal rote learning. A move to counter this came about four years ago in the form of the District Primary Education Programme (DPEP), launched in the State in progressive phases. In this scheme, plenty of song, drama and activity became part of school routine. The impulse for this kind of animation had been given by the Kerala Sastra Sahitya Parishad for about two decades. They were first doing it on a voluntary basis with a gradually increasing number of schools. After it became a state-sponsored scheme, the Parishad still takes an interest in its success.
There was a lot of opposition to the scheme from teachers’ organisation, parents and even from many educationists. Some of this opposition was due to the conception of the school as a serious study place and that song and play might affect efficiency of instruction. Such opposition would be considered reactionary by progressive thinkers. But some of the opposition was not to the song and play as such, but to the perception that these activities did not enter dialectically into the subject component. Perceptive educationists have felt that while the activity and song are good in so far as they were introduced at all, they were not properly integrated with the curriculum, that knowledge of the ‘basics’ was not drawn out of play and song as done in some progressive schools, but by following them through formal, outdated teaching of reading, writing and arithmetic. In other words, the animation, recently introduced in lower primary schools, may be only an external and isolated animation. But the question of integrated animation and deeper models of animation which one could easily trace in revolutionary music education practices abroad yet remains to be tackled. It must be admitted however, that even the ‘visible animation’ which has now entered the lower primary schools is a big advance as compared to the former state of life-less, joyless primary education. But the case for deeper and more comprehensive forms of animation still remains, and is explored in the second segment of the present investigation. It draws its inspiration from two types literature covering musical animation of education.

One model comes from France (Denyse Beaulieu (b), in *L'Autrement*, 1993, pp.23-35), where the terms animation and animateur have been popularised officially in large systems. France established a national system of education very early. Soon after its birth in 1879, the school of the Republic (*l’ école républicaine*) inscribed
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education in art and song in its programme. This cultural democratisation followed the first manifestation of modernity in art — the inaugural exposition of impressionists in 1874). The will to open the avenues of beauty to all was an irreproachably democratic will, but there were practical difficulties. The method of art was gradually led astray by the pedagogic methods in the common school. The French Ministry of Culture, led by some very progressive thinkers, attempted to supplement the work of the Ministry of Education and impart life to music and art education in schools. The year 1968 was considered a turning point when a triple evolution — artistic, educative and democratic - helped to impose a new vision on education. Artistic education was called upon to play a key role in the renewal of education (renouvellement pédagogique). Its aim was not to prepare professionals in art, but to permit an impregnation and enlargement of experience, an acquisition of sensibility, a 'savage' expression, i.e., natural, virgin, spontaneous creativity (without worrying about technical or aesthetic constraints) and to prepare consumers of art. Thus in the 1970s cultural action (l'action culturelle) was invented and diffused on a large scale. André Malraux the foremost moving spirit of the scheme pointed out the tendency of the education system to replace 'la révélation' by 'l'explication'; every time it does so, it creates a misunderstanding. Jacques Duhamel, the gaullist Minister of Culture explicitly called this mediation of cultural action in education as animation. The discourse of this epoch in France favoured contact with living art (l'art vivant) as against the art placed in the museum (amuséifié) and the elitistic art of the bourgeoisie. In the 1980's the stress was on access to creation (l'accès à la création). This French model of various culture groups, inspired by the Ministry of Culture, trying to impart life to school education has been an inspiration for the present study. It must be reiterated that the Kerala
Sastra Sahitya Parishad has been performing this function to some extent in Kerala. But the number of different formal and nonformal agencies involved in the activities in France and the high practically oriented theory initiated by the ministers themselves gives scope for exploring even deeper models of animation in a study of this kind.

Another lead relating to art penetrating education also comes from France, but drawing on Rousseau’s theme of ‘losing time’ in order to gain true educational ends. (Denyse Beaulieu (a), Éditorial : les aventuriers du temps perdu. In l’Autrement 1993 a). This paper opens with a famous quotation where Rousseau sets forth his most important law for education. “It (the task) is not to gain time, but to lose it”. Orthodox people are in a hurry to get children to learn or at least memorise the lessons very early in an attempt to ‘gain time’. But in the long run such time gained is time lost. Children forget things learnt without understanding or enjoyment and need to relearn again and again. The French school underlines the fact that the paradox of education resides precisely in this losing of time. It allows the child to develop naturally, and as Piaget later pointed out, to construct internally the mental schemas, which would enable him/her to learn very fast and make up for the lost time. Beaulieu calls attention to three paradoxes arising out of the tension between formal school education and art education. Art seems to serve no purpose. But such free activities whose outcomes cannot be measured according to predetermined objectives, renew the sources of learning and prepare for a liberal education. The practical and interior approach in art education induces a pedagogy profoundly different from that of scholastic studies. Art education often seems to reject the customary pedagogic dimensions. But the mere fact of art acting by
osmosis suffices to provoke a kind of revelation. \( (l e \ simple \ fait \ du \ contact \ avec l'\text{art}, \ agissant \ par \ osmose, \ suffisait \ à \ provoquer \ une \ sorte \ de \ révélation) \). Politically art underlines the democratic convention of accessibility to all. In this sense it is endorsed by the majority of progressive persons – from the left and from the right.

The concept of 'losing time educatively' resulting in overall gains in the long run was formulated by Rousseau, but he himself never put it into practice. His disciple Pestalozzi, and later Froebel, Montessori and others put some of his ideas in practice. Montessori explicitly related her activity methods to Rousseau's negative theory of education, and systematically devised apparatus, which would help the child to structure his learning while he was just doing activities which might appear not only free, but unsystematic to the traditionalist. Even Froebel using a lot of song, play and fantasy, had some system inbuilt into his 'Gifts'. The play activities of modern mathematics educators like Zoltan Dienes are carefully designed in an environment of structured apparatus which could help the child to achieve a variety of mathematical objectives as and when the child constructs the mental schema, under the stimulus of the activities and the internal factor of development. Piaget's theory of stages of cognitive development is functionally mastered by the average British primary school teachers, who are also equipped with a variety of structured apparatus and play forms, so that the contrasting pole of subject (especially mathematical and scientific competencies) and the child's activities have been resolved in a functional dialectic. It was John Dewey who formulated this dialectic seven decades ago. Piaget's stages have been simplified in Bruner's enactive-iconic-symbolic stages and his spiral curriculum so that free activities can be offered to children at different development levels, yet optimisation of achievement
can be ensured for the individual child as well as the group. The American built-in structuring models as in Ekistics, Environmental Education in the K12 span, the French experiments (mid 1970s) in structuring of learning while the child is proceeding with 'Awakening activities" (Activités d'éveilles), and several other progressive experiments abroad represent inbuilt models of animating primary education while taking care of the realisation of educational objectives, matched to the child's level of growth (In Manuel, 1999, 1998). These studies suggest that even when innovative teachers are doing good work using the animation climate offered in DPEP, the use of effective models to map out and even monitor the achievement of educational objectives would help to sustain the very cause which the sponsors of DPEP wish to promote, answer unjustified conservative criticism, and sift out the justified criticism of negative side effects of implementing animation 'from above' with inadequate preparation and dearth of resources.

Apart from the many progressive movements in education which have taken hold in developed systems, particularly in the twentieth century, a specific movement of music education also grew up with a peak in the 1970s, which promises to be a powerful resource for animating education and drawing out the best in child and man – physical, intellectual and spiritual. It emanated from certain centres in the Soviet Union, the USA, Hungary, Germany and Japan, and has been instrumental in raising the cultural and educational level of certain nations. Zoltan Kodaly, Kabalevsky, Carl Orff, Suzuky, the California Singing School are some typical examples of this trend of animation combined with concern for achievement too. But the Ukrainian music educator Suvarov (In Kabalevsky et al (ed) 1974) laments that even in the educationally advanced countries, the movement of modern music
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education has not entered the main stream in the way their revolutionary approaches in mathematics and science education have spread. He also suggests that music is the most abstract art, just as mathematics is the most abstract among the sciences. Some of the developments in modern mathematics education have served as a kind of advance organiser, revolutionising the developments in the other cognitive disciplines. Hence a well-advanced music education has the potential of being a model for all education in the humanities. The literature on music education has been reviewed in Chapter III. Here they are mentioned only to indicate the vast resources with a revolutionary potential, which have left Indian education untouched. This gap underlines the need for this study.

There is another branch of literature that has grown in the latter part of the twentieth century. This literature analyses music in terms of linguistics, semiology, psychology, psychoanalysis, literary theory, sociology, cultural theory, ethnology and a host of other disciplines. Musical and musicological literature also come out with new approaches. Some of the analyses of music take philosophical dimensions. In a sense this was a very early tradition attested from Sanskrit, Tamil, Greek, Chinese, Hebrew, Egyptian, Persian, Arabic and other schools. But with the modern qualitative researches bordering on phenomenology, the approach takes on new dimensions. There is also the move to integrate the disciplines. One of the most recent ones coming from Vienna is Polyaisthesis: *multiperceptual consciousness and the idea of integrating arts and sciences in education*. During the course of the investigation, these studies offer the invitation to build innovative models. But a musical invitation is irresistible and the non-material plane permits longer flights than in the strictly empirical side of the research. The animation at this
level is of a different kind than the animation of powerful beats and rhythms, particularly those contributed by 'concrete music'. Model building at multiple levels including the deeper ones also calls for exploration.

The importance of the area of the investigation, and the vast amount of work done in progressive systems, and the lofty thoughts in the field emanated by even very early thinkers has been highlighted so far. But the area has remained neglected in Indian education. After A. Sukumaran Nair devised an Aptitude Test for South Indian Music (M.Ed. Kerala University, 1965), the field remained quiescent till Manuel initiated some studies, starting from about 1980. Chandrakumari’s M.Phil dissertation (1982) on A Study of the Potentials of Music for the Enrichment of Hindi Education was a path-breaking one. The doctoral study account opened with L. Vasantha’s (1984) Comparative Analysis of Music Education with its Implication for Improved Music Education in India. This study did call attention to some of the progressive innovations in music education abroad cited above, analysed music education components and even mapped some Indian innovations. In spite of it no dent was made, either in educational practice, or even in educational research documentation. Venugopu’s (1991) Youth Festivals and Institutional Music Climate in Schools and Colleges of Kerala was designed to bring in modern theory with an impact on practice. This too remains as a bound thesis. Varghese’s study (1991) on Folk Arts as a Medium for Nonformal Education does not feature the term music in the title, but its outcome included three constructs/episodes expressly applying music to animate school education. A functional follow-up of the studies with clear applications of theory in practice came in Manuel (1991) The Potential of Music and Allied Arts in Education (CCRT-sided project). This study not only
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summarised the relevant modern theory, but included several episodes applying them in the teaching of various subjects, particularly mathematics and poetry. But the contributions have not yet been taken in by the system. If some of these had been consciously applied in the later animating applications, the Indian system might have been able to move towards the lines of applied research in music education on the lines of progressive systems.

The gap is not only in research application, but even in research dissemination. The Trend Report by Arathi Sen on "Moral, Art and Aesthetic Education" (in Sharma (ed.) (1997), Fifth Survey of Educational Research (1988-1992), Vol. I) includes a general theoretical write up on aesthetic education, drawing ideas from Read, Dewey, Maritain and others, but has not drawn any specific ideas from the distinct field of music education. Vasantha's thesis is mentioned in passing, but no idea has been drawn from it. The long list of studies conducted in the field include none from music education – not even Vasantha's. Hence the case for an investigation in this neglected field is strengthened. In fact there is a case for conducting a study in this field in a way in which it will make an impression in the practising field, the theoretical field and in the documentation-diffusion mechanism.

The present investigator was drawn to this field on account of his involvement in the field of music from childhood, deep interest in Indian and Western music and competence in the latter to the level of playing (on the organ) music up to the Oratorio (Church music of the dramatic type) level and conducting a choir which could sing up to that level. His involvement as a social worker and training college lecturer and choir master brought him in animatory educational contact with
children and education students. His contact with his supervising teacher brought a mine of theory of music and varied practice formats (Indian and western) explicitly applied in the cause of education – at several levels of complexity – from animating the learning of little children to animation of the mature mind in various ways.

The present venture into this challenging field is a humble attempt at picking up at least some pretty pebbles from or near this vast ocean of music education and offering them in modelled form to the field of educational scholarship and practice.

STATEMENT OF THE PROBLEM

For the reasons stated above the investigator has embarked on a study entitled:

*Developing and Testing Musical Models in Animating School Education.*

DEFINITION AND EXPLANATION OF KEY TERMS

**Music** has a wide variety of meanings. In the two quotations from *Gitānjali*, in the Pythagorean music of the spheres, in the Hindu concept of *nāda brahmam*, in the Chinese view of music as the harmony of heaven and earth, music is seen in transcendental, yet immanent light. The ancient Greeks used the term in a broad sense, as that presided over by the nine muses. In this sense all deep learning is music. On the other hand music is seen in a practical sense of song, rhythm, and more particularly in the sense of the performing art in sonic medium. Most people understand music in this simple sense. In this study all the relevant varieties of
meaning of 'music' are explored. This non-precision of definition may be considered to be a weakness in a psychometric study. But it is an advantage in model-construction study. But confusion of discourse is avoided by certain demarcations. In the simpler animation models leading to the first section of the findings music is used in the common sense meaning of song, rhythm and the like. In the second part involving deeper explorations, the full spectrum of meanings, ranging from abata to anabata music and covering all the gifts of the Muses allowed free interplay in evolving models.

Model has been defined in various ways.

Robbins (1996) defines model as "an abstraction of reality, a simplified representation of some real world phenomenon". Siddiqui (1991, p.6) defines it as "a pattern of something to be made or reproduced and means of transferring a relationship or process from its actual setting to one in which it can be more conveniently studied". Suckling, Suckling and Suckling (1980, p.7) see it as "constructing alternative, usually simpler forms of objects or concepts, in the expectation that the study of the model will shed light on the nature of those objects or concepts". Joyce and Weil (1992, p.4) define it as "a plan or pattern that we can use to design face-to-face teaching in classrooms or tutorial settings and to shape instructional materials - including books, films, tapes, computer-mediated programs, and curricula (long-term course of study)".
Kaplan (1964) has identified a variety of models.

1. **Analogue models** are related to a physical system (rare in education).

2. **Semantic models** are expressed in verbal form and are referred to as figurative models and metaphoric models.

3. **Schematic models** integrate theory and real world situations. They help to cluster constructs into an ordered relationship (e.g., models of intelligence).

4. **Mathematical models** are generalised models applied to a measurement problem. Confluence model is a special application (by Zajone) of mathematical model.

5. **Causal models** whose essential role is in the building of a simplified structural equation model of the causal process operating among the variables under consideration. The model is written as a set of linear equations hypothesised to explain the relation between variables.

Kaplan adds that the term model is useful only when the symbolic system it refers to is significant as a structure – a system which allows for exact deductions and explicit correspondences. The value of the model lies in part in its abstractness, so that it can be given many interpretations, which thereby reveal unexpected similarities. The value also lies in the deductive fertility of the model, so that unexpected consequences can be predicted and then tested by observation and experiment. Kaplan adds that “Models can be built, tested and if necessary rebuilt in the course of the inquiry. They relate to theory and may be derived from theory, but they are conceptually different from theory itself.”

In science, major constructs, hypotheses, and even mappings, such as the kinetic theory, atomic structure, and the periodic table are also called ‘models’. They try to
construct a picture of reality on the basis of empirical data, a picture which would permit further testing of the nature of the reality. Most of the major constructs of philosophers are mental models of the highest level. This also applies to educational theories. Music presents a very interesting picture of providing a wide variety of models – cognitive, affective, communicative and even psychomotor.

A related concept, paradigm, also needs to be recalled here. Paradigm is a philosophical model or framework originating in a world view and belief system based on a particular ontology and epistemology and shared by a scientific community. The term has been popularised through the writing of Kuhn (1970). His concept of paradigm shift is even more relevant in the present work.

In this study 'model' is used in the exploratory, explicatory and facilitative sense. On the one hand music is used to probe into the nature of education and to clarify the concepts of education. When it comes to practical animation of school education, models are used in the sense close to that of Joyce and Weil, to design teaching situations which would be more enjoyable and effective. Kaplan's analysis is of great interest in his work, but his rigorous form of stating models in precise mathematical equations lies outside the purview of this study. This is an exploratory investigation where more attention is given to Whitehead's initial Romance phase in the conquest of new knowledge, and cautious advance made into the further stages of Precision and Generalisation would be appropriate (Referred in Manuel, 1999).
Silverman (2000, p.77,79), an authority on qualitative research uses the term 'model' in a very deep sense, on par with "paradigm'. He sees 'model' as “an overall framework for looking at reality”. He shows it at the top of a hierarchy of theoretical framework.

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<tr>
<th>Model</th>
<th>An overall framework for looking at reality (e.g. feminism)</th>
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<tbody>
<tr>
<td>Concept</td>
<td>An idea deriving from a given model (e.g. oppression)</td>
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<tr>
<td>Theory</td>
<td>A set of concepts used to define and/or explain some phenomenon</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>A testable proposition</td>
</tr>
<tr>
<td>Methodology</td>
<td>A general approach to studying research topics</td>
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<td>A specific research technique</td>
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**Education** is understood by great thinkers in very broad terms – as the “manifestation of the perfection already in man" (Swami Vivekananda); as the “drawing out of the best in child and man – body, mind and spirit" (Gandhiji); as the deepest self-realisation. In practice, and in much of planning and execution, education is understood as “provision of schooling”; as “what is learnt in school”; and even as "what remains after everything learnt in school is forgotten". The last one might look 'light' on the surface, but it is a deep definition, covering transfer and long-term effects of education. As in the case of the earlier terms, the interplay of musical models over the full spectrum of concepts of education –'negative' and 'positive', progressive and conservative - is envisaged in this study.
School Education: refers to the education provided in the schools in Kerala up to the level of ten-year schooling. At the take off point the realities of schooling in the narrow sense are squarely faced. But model-making implies consideration of the realisation of the hidden potentialities too, and then education in the broadest sense, what it can become, is more in focus, but not without some reality-testing.

Animation implies imparting life to the educational process. It is concerned with the means of overcoming the deadening effects of the formal school. The models initiated by Rousseau, Pestalozzi, Froebel and Montessori, and carried on in varied ways by their modern counterparts provided the first conceptualisation. In particular the special meaning of animation and animateurs in the French schools initiated from about 1970 is invoked to set the tune. The French Ministry and other establishments of Culture concertedly intervened in pedagogic establishments through l'action culturelle, supplementing pedagogic explication procedures by artistic révélation, l'accès à la création and through preference for l'art vivant (living art) to l'art muséifié. The Kerala :astra Sahitya Parishad has contributed enormously to animation, but the French definition is preferred in model-making because they have spelt out an explicit theory of animation including the opening out of the disciplines.

In the computer age, the first question posed to the investigator by certain sophisticated sectors during initial dialogue was: "Do you mean by the term 'computer animation'? The answer is that it does include computer-animation, but that aspect comes in the study as a later appendage. The free play of the spirit
and anything that would facilitate it is the key idea. Much of animation in this study is done without the computer. The computer is welcomed as a facilitator.

Since this investigation is conducted at multiple dimensions, it would be appropriate to define two levels in which animation is conceived in this study. Animation Level 1 is the type of activisation that would be visible to anyone – play, song, joyful movement, clearly perceptible rhythm etc. Animation Level 2 is deeper, more conceptual, more spiritual, closely related to the Latin *anima* – activating the very soul. In modern terms we may say that it touches the head and heart. The overt embodiment in terms of activating the sensations and kinaesthetic movement may or may not be discernible. This level of animation is less visible, but it relates to drawing out the deeper objectives of education.

**OBJECTIVES**

The study maintains an open stance which permits the extension and enrichment of objectives as the investigation proceeds. The following initiating objectives provide the early leads:

1. *To develop and test models of animating school education.* (This is the main objective, implied in the title of the thesis. The objectives which follow are subsidiary to this. This is so because a synthetic model comparable to Mendeleef’s Periodic table or a constructive model like the atomic structure models of Bohr and others may not be intelligible in a new field like music education unless the elemental models are also spelt out at least minimally.)

2. *To delineate some basic elements, conceptualisations, structures and landmarks in Western and Indian music.*
(3) To analyse music from modern interdisciplinary perspectives with a view to tapping the potential of music for animating education.

(4) to analyse the pathology of the school at least at the surface level in order to focus the need for developing animating models.

(5) to tap recent revolutionary developments in music education in progressive systems which could suggest remedial and creative possibilities even for our context.

(6) If possible, to synthesise the models developed into a larger unity or paradigm.

RESEARCH QUESTIONS

Qualitative methodologists prefer initiation of the study led by relevant research questions. The flexibility of this methodology allows for adding more questions as the research proceeds. Some of the initiating questions are presented below.)

1. Does schooling in Kerala present a bright, joyful picture?
2. If not, has there been sensitivity to this gap, on the part of progressive forces?
3. Has the system itself incorporated some dimensions of animation?
4. How have teachers, children, parents, and others reacted to it?
5. Are there gaps in the design of animation in such factors as (a) dialectic between child activity and subject (b) incorporation of the best practices in music education practised in progressive systems?
6. (a) What models can be constructed from music and its components and correlates to animate school education?
   (b) Which dimensions of music will yield worthwhile models?
   (c) Are the models developed new, useful, practicable, enjoyable, leading to high levels of animation, satisfying child interest as well as subject coverage in optimal ways?
HYPOTHESES

This study follows a lot of qualitative methodology, which recognises that some of the most relevant hypotheses would arise only in the course of the investigation as amply demonstrated in the history of science. However some initiating hypotheses are needed to give direction to the study. These as well as a few important ones that came up early in the study are listed below:

1. **The typical class-room in Kerala presents a dull, drab, deadening climate.**

2. **Music, either as a subject, or as an animating mode, has a very low place in the schools of Kerala.**

3. (a) **The District Primary Education Programme (DPEP) promoted during the past four years has introduced a lot of singing and activity in the lower primary education; but (b) the animation is by and large on the external side; the 'inner animation' characterising modern music education in progressive systems is yet to take off; (c) except where very competent and understanding teachers are present, this animation is at the expense of the basics of education; the dialectics of "the Child and the Subject" is yet to be recognised and resolved.**

4. **At the Upper Primary and High School Levels, even this external animation has not yet set in.**

5. **It is possible to develop musical animation models from (a) the structures, elements, conceptualisations and landmarks of western and Indian music; (b) analogies from music, and the treatment of music by poets and others, carried over into education (c) from other correlates of music.**
SCOPe AND LIMITATIONs

This study has been ventured within the broad area of music education. Within that broad field it is concerned with model making – a task which no earlier researcher has undertaken. For this reason it has to include a strong component of open exploration, which involves a philosophical dimension at least in the first and last phase. It also involves a large amount of analytical work since, music, its correlates and education need to be analysed to extract models. Since music and music and musicology have been analysed in interdisciplinary perspectives, those resources will also have to be covered. Though starting and probably closing with a philosophical perspective, the case made out in the significance implies that it works in the area of working philosophy rather than pure philosophy. This commitment as well as the inclusion of ‘testing’ in the title leads to the need for an empirical dimension to the study, though not with the same rigour which a positivistic, highly delimited empirical study will entail.

This study is conceived in breadth rather than in depth. Many empirical studies in education, particularly those with psychometric designs work with a small number of hypotheses, or even one, to be tested. In contrast to this the present study starts with an open exploration of the field of music and education in order to construct animating models for education. Keeping the antennae tuned to the broadest range within the limits of manageable work load appeared to be the best strategy at least for the initial phase. Premature reduction of the range could result in loss of valuable data. The aim of the first phase was to explore and gather as many ideas as possible. From the second phase onward, the range is reduced to
the areas which promise maximum fruitfulness and some of these were explored in depth.

The study has two phases. It is primarily a 'constructive' study aimed at making models for musically animating school education. This implies analysing the field of music and of education and their interaction. The availability of vast bodies of literature in music education and of music analysed in interdisciplinary terms which has had little impact on the Indian system so far has made it highly promising, but also difficult. The analysis of music, Indian and western, (aided by hints provided by works of enjoying and analysing music) was another source for suggesting models, but the ocean of music (sangita sagaram) is unlimited. The feasibility of evolving worthwhile models is the factor which helped to delimit the zones of 'immersion' in music. Much of this work led to the evolving of deeper models.

But there are simple and obviously apparent animation forms, which have been shown to enhance school achievement besides their animatory value. The natural enjoyment itself could be a value for educationists of some schools. A series of research questions and hypotheses set up for this purpose are tested through empirical approaches, but not with the same elaborateness or standardised tools which a purely survey researcher might insist upon. Many of the tools developed for this purpose are improvised ones, yet yielding sufficiently trustworthy findings for a broad study of the kind undertaken. Some of the deeper and more intimate aspects of this exploration is done through qualitative methodology which is explained below.
METHODOLOGY IN BRIEF

The present study is conceived in breadth, in space as well as in time, covering the past, present and future and attempting to evoke as many models as would be relevant and possible. Some of these would be probed in depth. Certain clearly defined hypotheses relating to the effects of animation would be empirically tested. This calls for some understanding of the historical method, at least to the extent of interpreting data coming from the past appropriately for evolving models for the present and future. The base line study of the status of school education in Kerala prior to the musically animated state is studied through survey techniques, using investigator made questionnaires, interviews and observation. The effects of the animatory interventions are studied through experimental tryout. Sophisticated experimental design with equated control group and precise measures of pre-test and post-test were not used. But the designs used were such as to warrant drawing trustworthy conclusions for an initial study taken in breadth. The survey tools were also not elaborate standardised ones, but made appropriately for the purpose on hand. The samples were purposive and not random. Analysis was done deeply covering – documents, situations, content, structures (of music, education). Relevant cases were also studied.

Though conventional research methodologists recognise three basic methods – historical, survey/descriptive/analytical/ and experiment/case, heterodox voices among earlier research methodologists have suggested certain extensions which were fully used in evolving the methodology for the present study. One is Cornell’s paper entitled “Productive Methods in Research” recognising ‘construct-making’
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itself as a research method (In Gephart and Ingle (ed), 1969). This covers "those
types of techniques which are theoretically derived and which consist of theory
construction or model building and the verifiability of theoretical systems". Cornell
also calls attention to the fact that clinical methods place primary emphasis, not on
a population of subjects, but only on one or a very small number. These are
usually intensive studies where the interest is 'clinical' rather than 'actuarial'. "Action
research" also is used in this study in a sense broader than that contemplated by
Corey (1953) — as a more systematic evaluation and the application of more
rigorous methods to the improvement of actual operating situations of school
systems. In this context Cornell justifies such 'one-trial experiments' for the simple
reason that so little is known about so many aspects of education. The 'case-study'
or 'single-subject-experiment' is one of the alternatives offered to the researcher
who wishes to study human phenomena in the totality of the real situation. He also
favours "the trial and error experiment", popularised by Greenwood in sociological
studies. The value of the 'single variable' experiment popularised in educational
research around 1950 is questioned by educators holding holistic views. The
complex questions that they asked could not be answered through such a simple
design. Chamberlain recommends the Method of Multiple working Hypotheses to
the complex applied field where the effect of the simultaneous operation of several
forces is of vital interest. Platt's paper reproduced in the same work attempts to
impose some seminal ideas from research in molecular biology and high energy
physics into educational research. Instead of doing hundreds of experiments
designed to test relatively light hypotheses, if one stops experimentation for some
time, collect a variety of hypotheses, select those with the highest density and
richness, a few experiments would be able to give far more valuable results. These
papers written even from the framework of conventional methodology lend justification to the methodology followed by the investigator.

In the present study, therefore, the conventional methods were used with less rigour, but with sufficient care to enable trustworthy conclusions to be drawn. But the newly emerging qualitative approaches were applied as formulated by its best exponents with depth. As the study is conceived in breadth, a large number of mini-studies form part of this investigation and these were synthesised progressively. Qualitative methodologists prefer purposive and theoretical sampling and improvised tools. Even the conventional research methods adopted did not use standardised tools. The type of tools prepared by the investigator were, however, relevant for the purpose of testing the hypotheses.

Analysis, recognised even in conventional research methodology, takes on new dimensions in qualitative research. The essential part of the present study was to analyse music in its various dimensions on the one hand and to analyse education on a wide spectrum on the other. The expectation was that the matching of the two analyses would help to generate many relevant models. A large amount of documents relating to Western and Indian music and musicology, enjoyment of music, music treated in interdisciplinary ways were analysed. The material presented under review of literature were also subjected to deeper analysis from the point of view of extracting models. Documents pertaining to the state of education – as it is and as it can be – were also analysed. Documentary analysis at the surface level could be managed even within conventional frameworks of research, but as one goes to the depths, the research tended to become more and
more qualitative and even phenomenological. Content analysis gets broken down in operation into analysis of content, structures, situations, interactions and a host of other components. The analysis of texts in music lead gradually to analyses of pretext, context, sub-text and inter-text.

Some of the qualitative approaches adopted presented a new shape when applied in the music-education interface. Hermeneutic interpretations take new dimensions when music is analysed in terms of meaning – bringing to bear the intersections with linguistics, literary theory, psychoanalysis, psychology, culture theory and a host of other disciplines. Interactional approaches, dialogic approaches, fusion of horizon and other intricate concepts revealed new meanings in the course of the study, not only in the researcher-participant interaction, but also in the interaction with music itself. Structural analysis of ragas, talas, harmony, counterpoint, various genres of music, analysis of 'content', not only of music and the related literary texts, but also of the emotions, of the experiences with the surface and deep self, blended with deeper educational analyses took the investigator into deeper realms than were originally contemplated.

Validity was checked through such techniques as peer debriefing and triangulation – inter-method, intra-method and inter-investigator. Several eureka experiences were felt by the investigator and the research guide too on several occasions and also reported by several respondent-participants in the present study.
The concept of 'immersion' in the setting promoted by qualitative researchers acquired enriched meaning when immersion in music too was added. Deep phenomenological approaches bridging science and philosophy also opened themselves. The perspectives and caution obtained through a careful reading and contemplation of qualitative research did help a lot in going through all these phases and coming out of these to produce the research report.

In addition to the animation models developed and tested, collateral readings on Music and Meaning, Music and Cultural Theory, Modern Physics (of the relativistic era) and Music and Polyaisthesis, unifying the arts and sciences gave new clues for effecting the final synthesis.

STRUCTURE OF THE PRESENTATION

The introductory chapter is followed by six sizeable chapters with a short concluding chapter, comparable to what in musical language would be called CODA (tail). The chapter which follows immediately presents a review of related studies and some conceptual literature, divided into four sub-sections. But certain types of conceptual literature needed for developing the models and for making the final synthesis are withheld for presentation at an appropriate juncture, for that would help to follow the arguments easily. Chapter III presents the Methodology. Since the study uses a large component of the latest qualitative methodology, which has not yet come to wide use in educational research, those aspects are delineated in detail. Chapter IV is devoted to Basic Conceptualisations and Structures in Music: Western and Indian. Obviously it is impossible to give a comprehensive coverage of concepts and structures. The main criterion in the
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choice was possible utility in constructing the models. Chapter V presents Animatory Models from Analysis of Music intersecting other Disciplines and Situations. The Results of Empirical and Logical Testing of Hypotheses and Models are presented in Chapter VI. The culmination of the study is actually in Chapter VII where a broader and deeper synthesis arising from the more immediate and practical models, and from interdisciplinary studies which provide a frame for such synthesis. The Chapter is entitled: The Quest for Meaning in Music: Synthetic Models beyond Surface Animation. The Conclusion follows.