Chapter III
RESEARCH METHODOLOGY

Aim of the Study

The present study is an attempt to improve the behavior and classroom performance through a therapeutic program, consisting of classical music and relaxation training in the classroom.

Objectives of the Study:

The specific objectives of the present study are two folds:

1. To administer the therapeutic program consisting of music and relaxation training to students
2. To study the impact of the program with respect to the following.
   (I) To reduce inappropriate behavior,
   (II) To reduce socially disruptive behavior,
   (III) To reduce impulsive behavior
   (IV) To improve attentive behavior,
   (V) To improve classroom performance,
   (VI) To improve interpersonal relations.

HYPOTHESES:

With these objectives in mind the following hypotheses have been framed for the present investigation.

1. As a result of the exposure to music and relaxation training there will be a significant reduction in the inappropriate behavior of children in the class.
2. As a result of the therapeutic program there will be a significant reduction in the disruptive behavior.
3. Therapeutic program reduces impulsive behavior significantly.
4. As a result of the therapeutic program, there will be a significant improvement in the attentive behavior of children in the classroom.

5. Therapeutic program improves the classroom performance significantly.

6. Therapeutic program improves interpersonal relations in the class significantly.

Rationale for the Hypothesis:

The basic contention of the study is that music and relaxation training would modify and improve many of the children's behavior in the classroom for the better. In this study only a few important behavior, in which change can be seen overtly have been included. These behaviors are considered essential for the (i) cognitive (ii) social and (iii) emotional development of children. The purpose of education is to make the child intellectually sharp, emotionally secure, and socially acceptable. It is toward attainment of this end that the therapeutic program has been planned so as to implement in the classroom.

It is a common fact, that music has its influence on its listeners and is an effective therapeutic medium, combined with relaxation training, they are bound to improve cognitive behavior, social and emotional development in children in a class. It helps to make effective adjustments and aid academic performance.

The efficacy of an intervention program, strongly relies on the outcome of its results. Basically it lies on its

(i) easy applicability, (ii) feasibility for follow up action; (iii) should fit in easily into the routine frame of work

Research Design

Strongly formulated design form the basis for research in any discipline. The design emulates the investigator to follow the direction of improvement towards goal. In this research the therapeutic program involving classical music and relaxation training are independent variables, the effects of the therapy on children are observed as dependent variables.
The effects of the therapeutic program is assessed by means of improvement in classroom performance and the behavior of children, at the beginning and end of the therapeutic sessions.

The music and relaxation training have been used in this research as the integral parts of single compact program. The basic objectives of this program is to bring about behavioral changes through the relaxation of the mind and body.

This is the pre-post design. Wherein the baseline evaluation of IQ, assessment of children's behavior by the teachers, their social acceptance, academic performance and musical projection test are compared with the behavioral assessment at the end of the therapeutic sessions. The difference between the pre and post and also a follow-up, in addition to the weekly assessment of children's behavior and classroom performance have been analyzed and discussed.

Though the effects of the Musical Relaxation (MT) and Behavioral Relaxation Training (BRT) on the children are assessed separately, their effects are considered as complementary to each other; because both the sessions have the common objective of bringing about relaxation of mind and body, thereby resulting in behavioral changes in children.
As a supplement to the behavior evaluations by teachers the sociometric status of the child in the class has also been collected for the study. In addition to these informations, to assess the intelligence of children in the class, a nonverbal test was utilised in this study.

Tools for the Research

For the present research the investigator has developed and utilised the following tools.

1. Musical Therapy (MT)
2. Behavioral Relaxation Training (BRT)
3. Behavioral Evaluation Form (BEF)
4. Musical Projection Test (MPT)
5. Sociometric Acceptance Scale (SAC)
6. Academic Achievement (AA)
7. IQ Assessment

Among the above mentioned tools except BRT the investigator has specifically developed the other tools such as musical therapy, musical projection, behavioral evaluation form for this research purpose to suit the requirements of the present investigation.

The results of the MT, BRT and Teachers evaluation has the major test data that is conducted not only for the pre-post but also for weekly assessments throughout the program. On the otherhand sociometric assessments musical projection and academic achievement have been taken into consideration only for pre and post assessment point of view.

Description and Development of Tools

The development of musical relaxation, used in the therapeutic program, of the present study, consist of the following procedures
Pre-Pilot Study

First, during the preliminary stage of selecting the kind of music to be presented, a Music preference schedule was developed and administered to the children to know their musical preferences. The results of the schedule revealed that all the children like melodious, low pitch music of slow tempo. The majority of children preferred instrumental music and liked to hear music when they are tired in the evening. Having ascertained their musical preferences, in the next stage of the study, the investigator attempted to know the preference for the instruments in particular, by presenting, a cassette consisting of four varieties of different instrumental music to children. The instrumental music was played and responses of children were collected.

Among the four types of music, classical karnatic, classical hindustani were played by violin classical light and classical flute were played by flute. The respective instrumental music were presented twice with a gap of four days and the results revealed that children prefered the kind of music particularly the classical karnatic violin. It was revealed by the significant correlation of +0.73 between first and second presentation, correlation of +0.49 for classical flute +0.52 for classical light and +0.32 for hindustani violin were also found.

Having ascertained the relative preference of the children for the instrumental music of the classical karnatic violin the investigator proceeded further to know the preference for slow or fast tempo phasing of the music through violin. The violin music was played separately in slow and fast tempo each twisted with a gap of four days for the purpose of ascertaining the reliability. The reliability of coefficient for slow tempo +0.89 and for fast tempo it is +0.28. The results reveal, the relaxation is found to be more in the case slow tempo than the fast tempo of music presented to children. Since it has ascertained the preference for classical karnatic violin and slow tempo of ragas, the basic foundation for the pilot study has been well laid.
Pilot Study:

From the ocean of ragas thirty ragas which are popular in the field of karnatic music played on the violin by renowned and eminent musicians were recorded in a cassette. Each raga was played only for four minutes. Among the thirty ragas selected there were (i) six oudava-oudava ragas, (only five swaras in the scale, (ii) six shadava shadava ragas-(only six swaras in the scale), (iii) thirteen samporna ragas having all the seven swaras in the scale, the other remaining ragas belong to shadava samporna category, having six swaras in the arohana and seven in the avarohana. The responses of children were noted down carefully, tabulated and analyzed. The children were asked to listen to the music and respond by one of the following alternatives given below:

Most comfortable and relaxed, feel relaxed, neither feel relaxed nor uneasy, feel uneasy, most uncomfortable and uneasy. The response categories were scored 5, 4, 3, 2, 1 respectively. The instrumental music was presented twice with a gap of four days to ascertain the reliability of results.

On the basis of the range of scores obtained for the thirty ragas, it was possible for the investigator to select a set of ragas which relatively evoked relaxed feelings and the ragas which evoked relatively uneasy feelings. The ragas with high scores were termed as evoking relaxation and those ragas with low scores were termed as evoking uneasiness among children. In this way there were thirteen ragas each in relaxation and uneasiness category. Their consistency was confirmed by means of two presentations with a gap of four days period and from the table below:

Table 1  Shows the results of the total sample.

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Number of Ragas</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>30</td>
<td>212 06</td>
<td>32.874</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>30</td>
<td>191 20</td>
<td>24.515</td>
<td>4.48</td>
<td>r = +0.967</td>
</tr>
</tbody>
</table>
The above results of the pilot study has enabled the investigator, to finalize, the list of thirteen ragas, evoking feelings of relaxation on the part of children. The essays or alap of the thirteen ragas were recorded for four minutes, each, in the cassette. For the purpose of convenient presentation, three cassettes were used each containing four, four and five ragas respectively. Otherwise all the thirteen ragas consisting of three sets have the same property of relaxation.

Table 2  Shows the results of the mean ragas evoking relaxation

<table>
<thead>
<tr>
<th>Relaxation</th>
<th>Mean x</th>
<th>SD</th>
<th>SE</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Presentation</td>
<td>43.38</td>
<td>6.36</td>
<td>1.76</td>
<td>+ 0.9</td>
</tr>
<tr>
<td>II Presentation</td>
<td>36.07</td>
<td>4.41</td>
<td>1.225</td>
<td></td>
</tr>
</tbody>
</table>

Table 3  Shows the results of mean ragas evoking uneasy feelings.

<table>
<thead>
<tr>
<th>Uneasy Ragas</th>
<th>Mean x</th>
<th>SD</th>
<th>SE</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Presentation 13</td>
<td>82.769</td>
<td>13.669</td>
<td>4.26</td>
<td>r = 0.98</td>
</tr>
<tr>
<td>II Presentation 13</td>
<td>73.00</td>
<td>23.17</td>
<td>6.36</td>
<td></td>
</tr>
</tbody>
</table>

The responses of the children in the main study are concerned only with the degrees of relaxation.

The selected thirteen ragas were, Kalyani, Bilahari, Mohana, Hindolam, Sudhasaveri, Ananda Bhairavi, Reethigowla, Madhyamavathi, Surati, Sama, Sankarabaranam, Sahana and Natakurinji.

The following instructions was given to the children,

"Dear children,

Please listen to the music that will be now presented to you with rapt attention. After listening to the music, give your responses on a five point scale"

Most Highly relaxed
Highly Relaxed
Moderately Relaxed
Mildly Relaxed
Least Relaxed
The responses of children were rated on a five point scale.

Most Highly relaxed - 5
Highly Relaxed - 4
Moderately Relaxed - 3
Mildly Relaxed - 2
Least Relaxed - 1

Scoring

The scoring yields the total range of score from 3 to 15 for the three phases of presentation per day. Low score denotes lesser relaxation and high score reveals higher relaxation.

Behavioral Relaxation Training:

For the Behavioral relaxation training, many established procedures are available in the research field. The investigator utilized the pattern developed by Roger Poppen (1985) and for children this test is easily adaptable in the classroom settings.

The Behavioral relaxation training consists of a description of ten postures and activities characteristic of a fully relaxed person in a chair. BRT shares many common features with other relaxation methods. To start with, the physical and social environment should be conducive to relaxation. In this study the behavioral relaxation training has been given to children as a motor skill, which can be learnt and perfected through regular practice.

Initial acquisition of BRT involves four steps for each of the ten behaviors, and the steps are as follows.

1. Labeling: Each behavior is given a one-word label by which it can be conveniently identified (i.e. Hands, Feet, Body, Shoulders Head, Mouth, Throat, Quiet, Breathing Eyes).
2. Description and Modeling: The relaxed behavior is described and demonstrated by the investigator as shown by the figures. Commonly occurring unrelaxed behaviors are also demonstrated.

3. Imitation: The trainee is asked to demonstrate the relaxed posture.

4. Feedback: The trainee is praised for correct imitation. If the trainee does not display the proper posture, the investigator first provides corrective instructions. When necessary the manual guidance in gently employed, and the correct posture achieved, positive feedback is given to children.

After the feedback, children were asked to maintain the trained postures for one more minute and to observe the feelings that occur.

Procedure for Acquisition of BRT: For the initial acquisition of the BRT the following pattern has been suggested.

Hands:

1. Labeling: The first relaxed posture is called Hands.

2. Description and Modeling: Your hands are relaxed when you rest them on the arms of the chair or on your lap, with the fingers slightly curled into the clawlike position. Your hands are not relaxed if the fingers are flat or curled into a ball.

   (Correct postures demonstrated with the help of the figures)

3. Imitation: Please show me the relaxed hands.

4. Feedback:

   (i) positive. That's good. Just continue to relax for a few moments.

   (ii) Corrective: Not quite, curl your fingers a little more so that a pencil could pass under your pinky.
(iii) Guidance: That's still not quite it. Here let me show you the trainee's hand can be put into correct posture and positive feedback may be given.

Feet:

1. Labelling: The next posture is called Feet.

2. Description and Modelling: Your feet are relaxed when both heels are resting on the foot rest with the toes pointed away from each other like this. (demonstrated through help of the figure). Your feet are not relaxed if your toes are pointing straight up, turned outward too much or if your ankles are crossed. (demonstrate as shown in the figure).

3. Imitation: Please show me relaxed feet

4. Feedback:

   (i) Positive: That's right. Just continue to relax your feet and notice the feelings in your legs and feet as you do so.

   (ii) Corrective: Your toes are still too upright. Just let your legs and feet flop apart.

   (iii) Guidance: Allow me to position your feet properly. After proper position of the feet, positive feedback has to be given.

Body

1. Labelling: The next relaxed area is called body.

2. Description and Modelling. Your body is relaxed when your chest and hips are straight in the chair with no movement. (demonstrated as shown in the figure). Your body is unrelaxed if your torso is crooked, or any part of your back or hips are lifted from the chair, or if there is movement in your torso. (demonstrated as shown in the figure)

3. Imitation: Please relax your body
4. Feed back:

(i) Positive - Good. Now take a few moments to notice the sensations as you relax your body.

(ii) Corrective: You seem to be a little twisted to your left. Rotate your chest slightly to the right while keeping your hips still.

(iii) Guidance: Manual guidance of adjusting torso of the subject, in this regard the social conventions regarding touching chest and hips should be considered. The above guidance is applicable only with adults, since in this study, children are the participants, of the program, this convention has been overlooked. The investigator helped the children to position the body properly by straightening the chest and hip.

Shoulders

1. Labeling: The next relaxed posture is termed shoulders.

2. Description and Modeling. Your shoulders are relaxed when they are resting against the chair, and appear rounded, with the tops in a straightline. (demonstrate, as shown in the figure). They are unrelaxed if they are raised or twisted, or if one is higher than the other, (demonstrate as shown in the figure).

3. Imitation: All right, can you demonstrate relaxed shoulders?

4. Feed back:

(i) Positive - That's right. Now just relax and observe the feelings in your shoulders.

(ii) Corrective: Your left shoulder appears a little higher than your right one. Lower your left shoulder a bit.

(iii) Guidance: Your left shoulder appear a little crooked. Let me place them in a straight position. After correction positive feed back may be given.
Head

1. **Labeling:** The next relaxed posture is termed head.

2. **Description and Modeling:** Your head is relaxed when it is resting on the top of the chair, facing straight midline, (demonstrate as shown in figure). Your head is unrelaxed if it is tilted or turned to either side or tilted upper down. (demonstrate as shown in figure).

3. **Imitation:** Please relax your head.

4. **Feedback:**
   
   (i) **Positive:** Good. Now just take a few moments to notice the sensations in your neck as you relax your head.

   (ii) **Corrective:** That is close, but your head is tilted a little to the right. Can you straighten it?

   (iii) **Guidance:** Your head is still tilted slightly. Let me adjust it so it is straight. After correction without fail positive feedback should be given to children.

Mouth

1. **Labeling:** The next relaxed posture is called Mouth.

2. **Description and Modeling:** Your mouth is relaxed when your teeth are parted and your lips are open in the centre, like this (demonstrate as shown in the figure). Your mouth is unrelaxed if your lips are closed, or if you smile or lick your lips (demonstrate as shown in figure).

3. **Imitation:** Ok. Please show me how to relax your mouth.

4. **Feedback:**
   
   (i) **Positive:** That’s right. Now notice the feelings in your jaw and face as you relax your mouth.
(ii) Corrective: Drop your jaw and let your lips open a little wider.

(iii) Guidance: Manual guidance is not applicable.

**Throat**

1. **Labeling:** The next relaxed area is termed throat.

2. **Description and Modeling:** Your throat is relaxed when it is quiet and smooth. (demonstrate as shown in figure). It is unrelaxed if there is any movement such as muscle twitches or swallowing. (demonstrate)

3. **Imitation:** Please demonstrate a relaxed throat

4. **Feedback:**

   (i) **Positive:** That’s good. Notice the feelings in your neck and throat as you relax for the next few moments.

   (ii) **Corrective:** That’s ok if you have to swallow occasionally, but then just go back to relaxing your throat.

   (iii) **Guidance:** Manual guidance is not applicable.

**Quiet**

1. **Labeling:** The next relaxed activity is called Breathing.

2. **Description and Modeling:** Your breathing is relaxed when it is slow and regular, (demonstrate). It is not relaxed if it is rapid, or if there are interruptions such as coughing, yawning, sneezing, sniffing, vocalizations, or the like.

3. **Imitation:** Please demonstrate relaxed breathing

4. **Feedback:** Observe the breathing rate for at least one thirty (30) second period and compare it to the baseline rate.
(i) Positive: If the rate is less than baseline say that's good, just continue to breathe slowly and regularly.

(ii) Corrective: If the rate is equal to or greater than baseline rate say, 'Please inhale slow your breathing'.

(iii) Guidance: 'Please inhale slowly and deeply when I say 'in', and exhale slowly as I say 'out'. Pace the trainee's breathing, so it is slightly less than baseline rate.

Eyes

1. Labeling: The final relaxed area is called Eyes.

2. Description and modeling: Your eyes are relaxed when the lids are closed as smooth.
   (demonstrate as shown in figure). Your eyes are not relaxed when they are tightly shut or if there is eye movement beneath the lids (demonstrate as shown in figure).

3. Imitation: Please relax your eyes.

4. Feedback:
   
   (i) Positive: Good. Notice the relaxed feelings in your eyes and forehead as you relax for a few moments.

   (ii) Corrective: Your eyelids are closed a little too tightly. Allow them to become smooth.

   (iii) Guidance: Manual guidance is not applicable.

This initial acquisition procedure can be accomplished in approximately fifteen (15) minutes of the first session. After acquisition, trainees move right into the proficiency procedure. Subsequent sessions begin with proficiency training.
Instructions:

The trainee is asked to relax all the ten areas. Dear children, “For the next twenty (20) minutes I would like you to relax all ten of the areas that we have covered now. While you are relaxing I would like you to silently review each of the ten areas and to pay attention to your posture and the sensations of each one. Please sit back in the chair and relax all ten parts of your body”.

Behavioral Relaxation Training Scoring:

Behavioral relaxation score for each observation period is a percentage on the number of behaviors scored as relaxed or unrelaxed divided by the total number of observations. The number of relaxed behaviors is the total number of plus + signs marked in the scoring sheet. Ten minute observation period is employed by the investigator, for this study the total number of observations available is hundred.

BRS may be scored in either a positive (percent relaxed) or a negative (percent unrelaxed) direction. ‘Percent unrelaxed’ is the total number of minus - signs divided by the total number of observations. ‘Percent relaxed’ is the total number of + plus signs divided by the total number of observations. In this particular research children were the participants of the study, the investigator included only positive scoring to motivate the children. High positive score reveals a highly relaxed child. On this aspect the investigator selected to score positively as it best serves the requirements of the study (Schilling and Poppen 1983). The results of the behavior relaxation training has been revealed to children as a feedback of their performance in the sessions daily.

Behavioral Evaluation Form:

The behavioral evaluation form was particularly developed to identify the incidence and nature of classroom behavioral problems of children.

Pre - Pilot Study

This evaluation form has been compiled on the basis of personal observation with earlier available literature, interview with teachers, and the teachers opinion with regard to classroom behaviors children are likely to exhibit, and the opinion of the teachers to control those behavior of children were also collected. Then the items were coded and arranged. The collected items were
arranged in a pool order pattern. The collected materials regarding a particular behavior has been arranged in a hierarchical level. In the prepilot study the collected forty (40) items in six areas were given to forty (40) teachers in six different schools. And the suggestions given by the teachers were carried out to edit and finalize the scale for the pilot study.

Pilot Study

On the advice of the teachers the scale was extended to include altogether sixty items for pilot study covering six areas of behavior such as (i) inappropriate behavior (ii) Socially disruptive behavior (iii) Impulsive behavior (iv) Attentive behavior (v) Classroom work (vi) Interpersonal relations.

With reference to the frequency of the occurrence of a particular behavior almost all aspects of behavior in the classroom likely to be exhibited by children has been covered. Each area comprises of ten items. This evaluation form was rated on three categories often, sometimes and never. The ratings carried the scores 3, 2, 1 respectively for a positive item. If the item is negative the scoring is done vice-versa.

To find the reliability for the Behavior evaluation form the scale has been given to thirty teachers in various schools to rate their students studying in third to fifth standard. The reliability for the two ratings between teachers stands as $+0.672$.

The ratings of the teachers twice with an interval of one week in between which is significant were helpful in finding the children who were overactive, disruptive or in other category. This evaluation was also helpful to know the number of normal and problematic children available in a particular school.

This revised and enlarged Behaviour Evaluation form with sixty items in six broad areas has been utilized for the main study.

Before the commencement of the therapeutic program children were rated by teachers. During the eight weeks of therapeutic program the subsequent weekly evaluations by teachers and the investigator was available to know the periodic and overall improvement in children's behavior.
The evaluations by teachers after the therapeutic program was also available to study the impact of the therapeutic program on children and the improvement in their behavior.

The bias in rating a child by six teachers has been nullified by taking the evaluation from all the six teachers who are taking classes for them. The scoring procedure yields a score, 80 to 150, low score revealing less behavior problems and high score denoting more behavioral problems during class hour.

Musical Projection Test:

As a supplement to the Musical Relaxation a musical projection test has also been included in the study. During the musical relaxation session responses in terms of degrees of relaxation alone are elicited. Then it was decided by the investigator to administer the same essays of ragas in the form of a musical projection test. In this series the subject are encouraged to listen music and write down their feeling, ideas or anything that comes to their mind while listening to this music. During the musical relaxation session the responses of children were rated in terms of degrees of relaxation, in this projective session the emphasis is given to the over all expression of their feelings, what so ever in listening to music. It is called projective in the sense, the listening session enable them to respond, by projecting their spontaneous feelings and ideas.

In order to make a comparative assessment of the subject, projective expressions were obtained on two occasions. One before the commencement of the therapeutic program, and the other at the end of the program. The data however will be more meaningful for qualitative discussion of the feeling and ideas expressed.

Coding and Scoring

In the present study the investigator adapted the criteria - for classifying the written expressions of children following the earlier work by Abul Hubb Dhiia (1971) who used the classifications such as life materials, vegetations, parkside views, scenarios, lone settings etc., The frequency of such expressions for musical sessions were tabulated for all the children.
In this way a comparison of the unique responses of certain children rated by teachers as most problematic and least problematic may also be feasible. An attempt also has been made to find out whether, there was any improvement in the relative expressions of feelings as a result of training. Thus the projection aspect of music is only complementary to the musical therapy.

Sociometric Scale

A sociometric scale was developed to study the sociometric status of the children in the classroom. In addition to the teacher ratings a sociometric rating by children to know the level of sociometric acceptance of a particular child in the classroom was also included.

This scale yields information regarding sociometric acceptance as seen by their peers in the classroom in the respective situation. It also helps to confirm with the teachers' ratings as well. In the present study only the sociometric acceptance score were taken into consideration. Since it was felt that the rejection criteria if used it would make an impact on the child.

IQ Test

An IQ test, developed by Alexander Pass Along has been used to assess the intellectual level of children.

In this test wooden blocks in two colours (Red + Blue) with wooden boxes with nine printed in colour cards were the materials used. The time taken to complete the particular subtest was noted down in a separate scoring sheet. Scores were awarded to each subtest according to the scoring manual.

Academic Achievement

To assess the academic achievement during the period of therapeutic program a pre-post terminal marks were collected.
Sample Selection for the Study:

Pre-Pilot

Initially one hundred and fifty (150) children in the age group of 8 to 10 years studying in a matriculation school in third to fifth standard were selected for the study. As already described they were administered, the musical preference schedule, four varieties of instrumental music, to decide the choice of the musical instrument, and the presentation of the music (ragas) in slow and fast tempo respectively.

Pilot Study

The same group of one hundred and fifty children were administered thirty ragas and the impact of the ragas on the children were assessed, varying from relaxation to uneasiness on a five point scale.

Main Study

The final therapeutic program, was confined only to one section of the fifth grade children consisting of seventeen girls and twenty five boys in the age group of ten years. Since the prime requirement of a therapeutic program is individual attention, the investigator preferred a single class of children displaying behavior problems. Since it was considered relatively more convenient to maintain continuous contact with the children and the teachers concerned, adopt an uniform approach, observe individual differences in the same social setup and monitor the therapeutic program, the investigator felt, that in this way, therapeutic charges can gradually occur in a social situation, such as a classroom setup with common education objective. Hence the entire class of forty two children have been included in the study, irrespective of the type of problem displayed by children.

Now that all the test materials have been developed and finalized the investigator has prepared the ground for main study
Administration of Program

As a first and basic step in therapeutic program, before the actual commencement of the therapeutic sessions, certain baseline data has to be obtained from the subjects, for comparison with the post therapeutic results. In the present study before commencing the therapy children’s relaxation level on MT, BRT, teachers evaluation of the children’s behavior in the class, along with their IQ level, social acceptance, academic achievement and projective expressions of feelings on listening to music are obtained.

On the part of the investigator, ratings of children, based on music therapy, MT. Behavioral relaxation training, BRT and Behavior evaluations of children were also obtained.

Generally, administration of any intervention program, necessitates, the unconditional support and assistance from the respective classroom teachers and the school authorities.

In the present study, the investigator, was lucky enough to have the overwhelming support and encouragement from the school authorities for conducting the study during the school hours. The school authorities are also concerned with the incidence of the some behavioral problems in the particular section among the 8th graders. It was for this particular class, the therapeutic program was exclusively designed to be administered.

After the therapeutic program, during the eight week, a post test assessment, were made for the following. Behavioral evaluations by teachers, and the investigator, MT, BRT and sociometric acceptance of the children, results of the musical projection test and academic achievement. Apart from comparing the pre and post results, that is before and after the therapeutic program, weekly progress with respect to the relaxation obtained on MT, BRT and also on teacher evaluations were made.

In order to find out the consistency of the improvement, gained as a result of the therapeutic program, a followup study was also conducted after an interval of two weeks without any exposure to therapy. The followup results were analysed and compared with the post test assessments.
Administration of the Program

Thirteen essays of ragas have been suitably classified and recorded into three sets of music \((4 + 4 + 5)\) in each cassette. All these thirteen ragas have been found to be equally relaxing in effects.

In the administration procedure, Behavioral Relaxation Training was first administered in the third period of the day for twenty minutes to children. After an interval of twenty minutes, the first phase of music presentation first set was presented for 16 minutes during the 4th period. In the fifth period, second set was administered, for 16 minutes and the third set of music was presented for 20 minutes on the 6th period. During the 7th period children were informed the BRT results. The next morning soon after BRT the order of presenting the music was second set followed by third set and first set respectively. On the third day of the week, after BRT in the morning, the third set was administered followed by first and second set. Again on the fourth and fifth day of the week, the first day and second day pattern of presentation has been followed. In this manner, it was possible to observe and assess the relaxation of children, during the first phase of presentation, soon after BRT everyday, in a week. Likewise we would also have a chart of assessment for second phase presentation in each day and for all the days in a week.

Similarly, the relaxation experienced by children, during the third phase presentation, of music, for each day in a week, can be assessed.

The average of all the first phase assessment, second phase assessment and third phase assessment can be independently arrived, to represent the relaxation experienced by the children immediately after BRT (first phase) and during the subsequent other presentations. (second and third phase).

To assess the impact of the therapeutic program, periodical weekly evaluations by teachers were collected. To reduce the bias and subside the error in evaluating the behavior of children, the investigator also evaluated along with teachers for every week.
To have a first hand information regarding, when the BRT and MT was given to children, during which subject the MT was administered, the schedule of the class has also been furnished.

The following schedule of the class reveals the administration of BRT and MT during the class hours for the main study.

<table>
<thead>
<tr>
<th>Periods/ Days</th>
<th>9.30 am to 10.15 am</th>
<th>10.15 am to 11.00 am</th>
<th>11.00 am to 11.55 noon</th>
<th>11.55 noon to 12.40 pm</th>
<th>12 to 1.40 pm</th>
<th>1.40 pm to 2.25 pm</th>
<th>2.25 pm to 3.10 pm</th>
<th>3.10 pm to 3.55 pm</th>
</tr>
</thead>
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<tr>
<td>MON</td>
<td>English</td>
<td>Science</td>
<td>Maths BRT</td>
<td>Tamil MT I</td>
<td>History MT II</td>
<td>English MT III</td>
<td>Sanskrit</td>
<td>Moral</td>
</tr>
<tr>
<td>TUES</td>
<td>Tamil</td>
<td>Science</td>
<td>Maths BRT</td>
<td>Craft MT II</td>
<td>Geography MT III</td>
<td>Computer MT I</td>
<td>Tamil</td>
<td>Bhogana</td>
</tr>
<tr>
<td>WED</td>
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<td>Maths BRT</td>
<td>Maths MT III</td>
<td>Games MT I</td>
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<td>Science</td>
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<tr>
<td>THU</td>
<td>Tamil</td>
<td>Maths</td>
<td>Computer BRT</td>
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<td>Moral</td>
<td>Grammar</td>
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<tr>
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<td>Science BRT</td>
<td>Maths MT II</td>
<td>Tamil Grammar MT III</td>
<td>Sanskrit MT I</td>
<td>Computer</td>
<td>English Grammar</td>
</tr>
</tbody>
</table>

The eight subjects have been covered by six teachers. In a daily schedule of six hour stay in school 120 minutes for languages, 40 minutes social sciences, 40 minutes for environmental sciences 40 minutes for computer science, 40 minutes for maths, 40 minutes extracurricular activities, were allotted.

Classification of Results and Statistics used:

The obtained data are analyzed and suitable statistical treatment such as Mean Standard Deviation and T’ test Multivariate ANOVA and Profile Analysis etc., has been employed. A comparative analysis of most and least problem category as extreme groups was also ascertained and discussed for the purpose of qualitative discussion, with respect to each area of behavior, along with the items of most and least characteristic of each group respectively.
By following the ranking procedure children have been classified into two extreme groups—most and least problem category, ten in each of the six areas of class room behavior. From this five children who have been consistently in the most and least problem category respectively have been selected for further qualitative discussion.

The details of the results have been discussed in the next chapter.