Chapter VI

CONCLUSION

A. PRELIMINARY STATEMENT

The school is meant to be a place where children learn joyfully, meaningfully, and effectively what is needed for personal growth and for effective living in society. But even a casual observation of the formal school in operation would show it to be a dull, dreary place where children are put to work prematurely on tasks and studies much above their natural level of development, in mechanical and routine ways, which fail to tap their natural interests. Pupils do not understand much of what they study and so commit words to rote memory in a meaningless, joyless manner. This happens not only in foreign languages and in the heavily loaded content subjects, but even in the mother tongue class, which is most suited to act as a bridge between the home and the school. It is ironic that this should happen in the poetry class where instead of imparting the joy embedded in poetry much time is given to grammar and prosodic rules.

But this is an avoidable defect in the system. The humanist psychologist Maslow claims that even in the cognitive dimension pupils would be able to achieve several times what they now achieve if they work at the state of peak experience. And peak experiences can be triggered naturally by rhythmic activities. Music education and creative movement education have always been stressed by progressive educators, but these movements peaked up in the 1970s. The poetry class, particularly in the
mother tongue is an excellent context for extracting joyful learning at maximum potential instead of being a den of sorrow.

At the turn of the century a large number of teachers, who did not have complete command of the prosodic rules and the ability to communicate them in a form which young pupils can understand, had a tendency to make the pupils memorise the kārikas, which had coded the rules in symbolic form. Since the young pupils did not understand what they rote-memorised, they did not like the learning experience. So what should have been a joyful experience turned out to be a torture for most pupils.

What the ‘vrutta-phobes’ (those who were afraid of vṛttams) had overlooked was that Rajarajavarma has so carefully designed the kārikas that even an effective reading of the vṛttam would produce the same concepts embedded in the sound effect. So, if the start had been made with enjoyment of the sound effect, and the visual mode used as bridge, the children would have mastered even the symbolic rules with joy. It was possible to reach the same targets prescribed in a much more effective and enjoyable manner by learning vṛttams and kārikas in mode of applying enactive-iconic-symbolic sequence as carefully developed by Manuel (1990) following preliminary presentations by Sreedevi.

This was the trigger which motivated the investigator to select this topic. But in the new curriculum (from SSLC 2005 onwards) the symbolic forms are not insisted upon. So some teachers are really doing very
competent work under the new scheme through their own intuition and creativity and ability to build on pupils’ creative expressions of Malayalam rhythm. But a large number of teachers are struggling with the new scheme, unable to capitalise on the freedom given to them. It is in this context that this study was undertaken.

The study was motivated by the following Objectives:

1. To survey the way in which Malayalam poetry and prosody were taught in high schools till about five years ago and also how they are being taught now.

2. To review the literature on animatory approaches to teaching, particularly in various forms of rhythm, poetry and music.

3. To find some application of the seminal ideas of some modern psychologists such as Bruner and Maslow in order to make the teaching of Malayalam poetry more enjoyable and effective

4. To develop enactive models of teaching Malayalam poetry at various levels.

5. To develop iconic models of teaching Malayalam poetry at various levels.

6. To develop ways of helping pupils to master even the symbolic forms of prosody effortlessly through Brunerian iconic-enactive-symbolic sequence (with reference to the syllabus in vogue in the high schools during the first three years of the present study).

7. To explore the ways in which rhythmic activities (embedded in the Malayalam syllabus) – both in the old scheme and in the current scheme could be modelled to trigger peak experiences and ecstasy in education.

8. To explore the ways in which the models as developed above (particularly with reference to objectives 6 and 7) could carry
beyond the Malayalam classroom and enrich even other subjects in the curriculum.

9. To experimentally try out the models in schools and to evaluate the results.

10. To synthesise the results and envisage some futuristic scenario relevant for language education and integrated education.

Since the findings are presented according to the hypotheses originally formulated, these are not restated here as Objectives are. Since this study involves a high qualitative component too, a number of hypotheses arose during the course of the investigation.

The major methodologies used are

1. Historical, especially about Malayalam metre, and about how rhythm and metre can be used to enrich not only language teaching, but all education.

2. Analysis of a large number of poems and rhythms in the texts to identify the rhythms, more particularly analysis of the Kārikas to draw out how the symbolic rules are embedded in them and also how when chanted effectively, the rules are in fact in the enactive form, but many people have not noticed this at all.

3. Observational analysis of 49 teachers teaching poetry, with the number of observations amounting to over 500, were made by B.Ed. trainees to appraise the way teachers were teaching Malayalam poetry using carefully designed construct-embedded schedules, some parts of which were arranged in a programmed sequence. This is a formal application of the Survey method.
4. In point 2 it was stated that the enactive forms of the symbolic rules are embedded in the kārika. It was hypothesised that if iconic bridges are built to connect the enactive form and symbolic statement in the Kārika children can master all aspects of the vṛttam rules. Hence, based on the analysis stated above a number of constructs were built, to make the teaching of Malayalam poetry enjoyable and effective. The building of new and effective constructs in the teaching of Malayalam constitute an important contribution in this study.

5. The pupils entering Class 8 in June 2002 and after are not required to study the symbolic rules stated in the kārikas. So the bridge constructs stated in 3 above does not apply to the pupils in the last phase of the study the constructs bridging enactive and symbolic do not apply. But still simpler constructs were formed strongly focussing enactive and iconic forms without necessarily leading to the symbolic vṛttam rules.

6. The enactive-iconic-symbolic constructs referred to in 3 were tried out experimentally with B.Ed students taking Malayalam optional with success. At this point no statistical analysis was attempted.

7. An experiment was conducted in 20 schools to test the effectiveness of the constructs developed to make the teaching of Malayalam poetry enjoyable and effective. All of them were analysed but only 10 are presented in the thesis along with t-test to find out significance of difference of correlated means. In this experiment the survey tools referred to in 3 (observation of teacher behaviour in poetry teaching
by 49 teacher trainees using Part II of the schedule) and in 8 just below provided the data on improvement as a result of application of the improved constructs.

8. Questionnaires were administered to pupils (N=720) to elicit their views and their progress as a result of the intervention. This is a second formal application of the Survey method.

9. Plenty of qualitative analysis was also conducted to enrich the findings.

B. SUMMARY OF FINDINGS

Preliminary Finding: The Prosaic way in which poetry is presented
Hypotheses 1 and 2 are first recalled:

1. At present (during the first phase of the study up to 2004 SSLC) the teaching of Malayalam poetry in schools is done in prosaic ways by the majority of teachers.

2. The drawing out of the potential joys inherent in poetry is absent in most schools.

These two hypotheses are treated together because they are closely related.

The preliminary survey through observation and interviews confirmed that the teaching of poetry was prosaic, uninteresting as handled by most teachers because they concentrated much on the grammar and terminological difficulties for examination purposes. This was the position with reference to the texts in all the high school classes up to 2002.

Instead of drawing out the joy inherent in poetry, teachers formally taught the poem and the corresponding kārika (the metrical verse in which
the prosodic rule was stated). Most pupils did not understand the ideas embedded in the kārika at all. They simply memorized them for the sake of the examination. But meaningless memory is not retained long. Many even learnt to hate poetry. From 2002 June, the unnecessary load of grammar was reduced in the Malayalam syllabus of the textbooks in Class 8. Hence teachers could present Malayalam poetry more joyfully and naturally. But still there is scope for drawing out many more intellectual and emotional objectives.

This observational finding is also confirmed by the trainees’ rating of teacher behaviour in teaching prosody. In the Part A items teachers get very high or even 100% scores for simple items but get low scores for really insightful analytical items. It is seen much more clearly in Part B Special Practices. The items getting very low scores are either very difficult or relatively simple items but overlooked by omitting to penetrate into the vṛttam – e.g., failure to look for the ga, am symbols in straight or twisted form inside the vṛttam itself and rote memorising those details from another external source and increasing the memory load.

Hypothesis 3 reads:

Some innovative approaches (like DPEP) which gave a lot of importance to song, dance and drama at the primary school used surface level animation by most teachers without drawing out the deeper educational potentialities as has been demonstrated by modern music educators and creative movement educators.

This hypothesis was tested through secondary sources such as Manuel’s analysis of DPEP (2001). In relating activities in Environmental studies the teachers did enable pupils to draw out science and maths component in a meaningful way. So the tenability of the hypothesis is limited to the language animation activities and drawing out the deeper educational potentialities such as those which constitute the distinct dimensions of the present study (Vide Reviews in Chapters II and III).
Hypothesis 4 reads:

4. It is possible to prepare animatory constructs in Malayalam based on the ideas of Bruner (Enactive, Iconic, Symbolic), Maslow (Rhythmic experiences triggering peak activities), the Soviet and Hungarian schools, experiences in British schools etc.

This hypothesis was found tenable not merely by some external testing or appraisal but by actual construction of several such animatory constructs using constructs drawn from Bruner and Maslow and deconstructing the modes adopted by Rajaraja Varma in composing the kārikas and using the bridge iconic models (between enactive and symbolic) developed by Manuel, and further adapted for young children by the present investigator. Since construct-making itself is recognised as a method of research by Cornwell (cited by Mouly) a few out of the many constructs are cited here.

Malayalam prosody as presented by Rajarajavarma has embedded in it a dextrous design of all three form – symbolic, iconic and enactive: e.g.,

<table>
<thead>
<tr>
<th>Chollām va-</th>
<th>santa ti-</th>
<th>lakām ta</th>
<th>bha jam ja</th>
<th>gam</th>
<th>gam</th>
<th>Enactive* *</th>
</tr>
</thead>
<tbody>
<tr>
<td>– – ﻊ</td>
<td>– ﻊ ﻊ</td>
<td>ﻊ – ﻊ</td>
<td>ﻊ – ﻊ</td>
<td>–</td>
<td>–</td>
<td>Iconic</td>
</tr>
<tr>
<td>ta</td>
<td>bha</td>
<td>ja</td>
<td>ja</td>
<td>guru</td>
<td>guru</td>
<td>Symbolic</td>
</tr>
</tbody>
</table>

**The verse by itself is verbal. But if recited rhythmically with clap or tap it can become enactive. The symbolic form also is embedded in the kārika, but it is detached and shown below in the final row to match with the iconic analysis.**

But this is sufficient only for some who have a strong base already. Some may not understand even the basic ga,am symbols. For ga,am literacy, Manuel’s reordered (from Rajaraja varma) and bridged model was used. In this form the ga,ams have a neatly balanced sequence of: (a) Guru: all, first, middle, last; (b) Laghu: all, first, middle, last.
### Conclusion

<table>
<thead>
<tr>
<th>SYMBOLIC</th>
<th>Iconic</th>
<th>ENACTIVE (UTTERED RHYTHMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td>- - -</td>
<td>Tom tom tom</td>
</tr>
<tr>
<td>BHA</td>
<td>- UU</td>
<td>tom kIa</td>
</tr>
<tr>
<td>JA</td>
<td>U - U</td>
<td>tom ta tom</td>
</tr>
<tr>
<td>SA</td>
<td>U U -</td>
<td>Ki kIa tom</td>
</tr>
<tr>
<td>NA</td>
<td>U U U</td>
<td>Ta kIa</td>
</tr>
<tr>
<td>YA</td>
<td>U - -</td>
<td>TA TOM TOM</td>
</tr>
<tr>
<td>RA</td>
<td>- - U</td>
<td>TOM TA TOM</td>
</tr>
<tr>
<td>TA</td>
<td>- - -</td>
<td>Tom tom ta</td>
</tr>
</tbody>
</table>

The model also includes visual forms of at least six vṛttams when a dominant ga, am could be identified, so that the enactive and symbolic forms could be directly connected. The kārikas given on the left need to be rhythmically recited:

| Bham bhabha gam guru chṛana getam | - U U | - U U | - U U | - U U |
| Sa GA, AM kilan; lika to ṭakam; m | - - U | - - U | - - U | - - U |
| Chaturja GA, AM ki la moukti-gatma | U - U | U - U | U - U | U - U |
| munt;nan-l chum chhern;ītI u, tenkil | - - - - - - - - - - - - - - |
| kiMakr̥tī- tI vṛttam | | |
| N;lure- phanka;kI slragvi, i VṛTTAM|m | - U - | - U - | - U - | - U - |
After obtaining literacy for individual gaams, Vrttams in which two gaams alternate are introduced. **THE MOST ENCHANTING OF SUCH kirikas IS KUSUMAMANJARI.**

The most refined construct which later constituted the observation schedule is presented below:

<table>
<thead>
<tr>
<th>RAMNAR AM</th>
<th>NA NA</th>
<th>RAM NIRAN-</th>
<th>NU VARU-</th>
<th>MENKILO</th>
<th>KUSUM A</th>
<th>MANJA RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>- - -</td>
<td>- - -</td>
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<td>- - -</td>
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<td>- - -</td>
<td>- - -</td>
</tr>
<tr>
<td>TOM TA</td>
<td>ta ki TA</td>
<td>TOM TA</td>
<td>ta ki TA</td>
<td>TOM TA</td>
<td>ta ki TA</td>
<td>TOM TO</td>
</tr>
<tr>
<td>TOM</td>
<td>TOM</td>
<td>TOM</td>
<td>TOM</td>
<td>TOM</td>
<td>TOM</td>
<td></td>
</tr>
</tbody>
</table>

1. **WRITE THE VTTAM ON THE BLACKBOARD AND DIVIDE THE GAAMS IN VERTICAL LINES**
2. **MARK GURU(-), LEKHU (верх) OVER IT**
3. **USE MNEMONIC RULE TO REMEMBER EACH SYMBOL (YA, RA, THA, BHA, JA, SA, MA)**
4. **CONNECT THE CHAIN OF GAAMS SYMBOLS AND TAIL SYMBOLS (G, LG, GG) WITH THE SYMBOLS ARE CONNECT WITH KARIKA**
5. **IF THE STUDENTS HAVE NOT MASTERED IT EXPLAIN THE EIGHT GAAMS WITH VISUAL PATTERN AND SYMBOLS**
6. **TRAIN CHILDREN TO LOOK FOR THE SYMBOLS INSIDE THE KARIKA**
7. **THEY SHOULD KNOW THE TWISTED FORM OF SYMBOLS**
8. **Write the Ga,am name for each triad visual and - ∨ pattern and note Ga, la for the Siāttam.**

9. **Teacher recites the Vṛttam or the Karika so that the enactive form of the Ga,am stand out. (If necessary breaking the words)**

10. **The teacher encourages the students to clap, to tap and dance to hear the enactive patterns.**

11. **The teacher uses special vaithīri for the enactive Ga,ams (Thom, Thom, Thom)**

12. **Teacher uses a chart containing the symbolic, iconic and vaithīri.**

13. **Shows iconic forms with secants (● ● = – ; ● = ∨)**

14. **Plays with children in close pairs and alone**

15. **Secant count to help mṭra, letter count in Dravidian Vṛttam.**

16. **Teacher encourages small groups play**

17. **Teacher gives problems for students themselves to analyse Vṛttams iconically or enactively and then present the symbolic prosody.**

18. **Teacher presents the holistic Vṛttam so that analytical method does not kill the sprit of the poetry.**

19. **The final recitation, the meaning and bhāvam should be given more important and the prosody play quite background music.**
The major contribution of the investigator was to make the iconic and enactive forms more explicit as suited for young children. (Please see pictures given in Chapter V).

A pre-experiment conducted with B.Ed. trainees helped to validate and refine the constructs developed to make the learning of Malayalam prosody easy and enjoyable. In reading, chanting or singing poetry the students showed extra-ordinary competence, feeling tone and variety of presentation. But when it came to functional knowledge of Malayalam prosody rules, their knowledge was near zero. Most of them had forgotten the \textit{kurikas}, but if a prompt was given with the first phrase most of them were able to complete the statement of the \textit{kurika}. It was clear that they had got them largely through rote memory. They could not point out precisely where and how the \textit{kurika} contained the analysis of the metre. They had not noticed that when read from the point of meter (not necessarily of meaning) the \textit{kurika} contains the \textit{V\text{\texttt{T}}TAM} rule in enactive form. If a well-known \textit{V\text{\texttt{T}}TAM} learnt from the point of view of identification of meter was read out, many of them were able to name the \text{vrttam}. But if an unknown poem of known metre was read out they could not respond correctly. If a metre was tapped on the desk or the drum they could not identify the \textit{V\text{\texttt{T}}TAM}. Thus they had no application or appreciative knowledge.

But after two or three sessions, all the trainees who had taken Malayalam elective were able to identify known \textit{V\text{\texttt{T}}TAM}, and explain all the rules, and analytical components built in by Rajaraja Varma in the \textit{kurikas}. In the discussions that followed they plainly admitted that they had been blind to such simple things in the treasures which Malayalam prosody contained.

Hypothesis 6 was checked through qualitative approaches

6. If such constructs are applied in schools
Conclusion

a) children will enjoy learning

b) they will achieve more

c) both pupils and teachers will understand difficult concepts associated with vrttam rules which they have been memorising without understanding

d) there will be some incidental transfer of higher objective of learning into other subjects, particularly mathematics.

This was tested through a variety of qualitative methods.

This involves integrated approach to research which governs the total behaviour of the researcher. Here the researcher does not stand out as an external person observing the subjects in a detached, objective way. The researcher participates with the ‘researched’ on equal terms. There can be frequent reversal of roles. But the whole procedure will go in a natural way without disturbing the setting. The resulting findings will not be neat and clear-cut. But it will be more trustworthy and transferable to real educational conditions in school and society. From the qualitative approaches what was achieved is stated for each subdivision in the hypothesis

(a) Children will enjoy learning: The joy of children could be seen in their very expression (vide photographs), speed of movement, coming before time for the activity, willingness to work beyond the prescribed time, the willingness to share the joy with others and several other features.

(b) They will achieve more: Part of it is covered in the experimental design presented below. Qualitatively the full involvement of the pupils in the work was observed at every point. There was no need for external motivation. In formative evaluation children’s response came fast revealing the operation of their full mental powers and the whole person. (It would not be wrong to infer that they would achieve more than in the usual setting, even without a formally designed experiment).
(c) Both pupils and teachers will understand difficult concepts associated with vṛttam rules which they have been memorising without understanding. This was clearly observed in several encounters – with the trainees mastering in a two hour session what they had skipped in five to ten years of learning Malayalam prosody, in the encounters with the pupils and teachers during the experiment in the twenty schools.

(d) There will be some incidental transfer of higher objective of learning into other subjects, particularly mathematics.

The photographs show children dancing drumming and clapping. All this involves mathematics. When two children drum – one beating the ga, ams and another beating the mātras within the ga, ams – multiplication and division come in naturally. There are endless possibilities in mathematics and in other subjects. Only a few are shown.

7. The change of the curriculum in the high school in June 2002 has several implications for the objectives and hypotheses as originally formulated.

Now most teachers, freed from the fetters of having to teach the kārikas through laborious methods, find time to encourage children to move about dance, act and indulge in a lot of enactive behaviour. A few teachers do use the blackboard to show division of ga, ams, stress etc. Movement towards the symbols on the lines indicated in this study were not observed. But there seemed to be possibilities of moving towards symbols in several ways. Symbols in mathematics are most natural.

The Experimental Results

The experimental results are presented in this section. The experiment was designed to test Hypotheses 5.

if taught by a model of applying Brunerian enactive-iconic, symbolic sequence in the teaching of Malayalam prosody, pupils will make
significantly and markedly greater mastery than when they learn by the routine prosaic method.

A very detailed analytical statement of the steps by which the pupils could move from total helplessness to mastery in competence is listed out in behavioural terms. The pupils were asked to rate their perceived competence on a five-point scale before the experiment, based on the analytical statements setting forth the distinctive steps by which even the KiRIKA rules can be mastered. After the experience in enactive-iconic-symbolic sequence mastery procedures they again rated themselves. The self-rating was reported by 720 pupils drawn from 20 schools.

**Experimental Result with Pupils with Test-Retest Design**

The constructs developed were tested in an informal experiment with B.Eds without a formal design, but did yield valuable results validating and helping to refine the constructs developed to make vrttam rules enjoyable and meaningful.

But the experiment in which 720 pupils from 20 schools participated was converted to a formal design. The pupils’ reactions to the analytical programmed schedule (total score) (Part II of the schedule) was subjected to precise statistical treatment with calculation of mean, standard deviation, standard error of mean before and after the experimental treatment, calculation of correlation between before and after scores, mean difference and calculation of t value for correlated means. Though the results from all the 20 schools were analysed (In all of them the post-test score was significantly higher than the pretest scores (P<0.01).), only ten are presented in the thesis with full details.

A summary table presenting the pre-test mean, post-test mean, Mean Difference and t (for correlated means) presented at the end of the ten tables shows that in every case t is not only significant at one person
level, but also very large, ranging from 14.92 to 133.01; the second lowest value was 32.50. Four $t$ values were over hundred.

It may be interpreted that since the constructs are so effective and bring out something which most people had not thought about, and the logic of the construct is so clear the significance values are so high. This is the type of case where even without the use of statistics, useful inferences could be drawn.

The significance was not only with reference to the total score but also clearly revealed with every item in the programme.

But a careful examination of the $t$-value for the ten schools reported shows some further interesting findings. The last three Government schools are among the four which record $t$-values of over a hundred. From observations of student behaviour it was seen that in these schools the pupils seemed alienated at the beginning, probably due to dry teaching and learning not only in prosody, but in much of school teaching. Hence such pupils react enthusiastically to animated teaching and the shift is very obvious. It can be argued that among the private schools which produce high results too, two schools record high $t$-value – S.H. Thevara 118.59 and Christ the King 91.24. It may be hypothesised that these schools produce high results by strict discipline and mechanised drill learning. Hence animated teaching has produced marked effect here. The schools producing $t$-values of thirties and forties and even 14 may already be applying good student-friendly methods, but even they may have showed significant improvement because the constructs brought something new or brought out something more from the student. These should be tested in further studies.

Thus both quantitative and qualitative approaches have shown the effectiveness of the constructs. Hence there is strong likelihood that even with the new scheme the enactive approaches could prove wholesome, even without necessarily leading to the kārika type symbolism.
C. SUGGESTIONS FOR FURTHER RESEARCH

1. Now that the kārikas as means of controlling the prosodic syllabus have given place to free activities, teachers and pupils conduct a wide range of activities. It would be interesting to survey the varieties of new approaches that have now become popular. Special attention may be paid to creative innovation by teachers and pupils. If children themselves learn the rules by induction, or compose new poetic forms that too should be analysed or studied as cases.

2. When prosodic rules have been eliminated from the formal school curriculum there seems to be some indication that some teachers are encouraging plenty of activities and some may be using the blackboard to show the stress and splitting of the line into rhythmic segments to increase the appreciation of poetry. Such activities are commonly done in teaching poetry in English and in other languages. It would be interesting to survey such natural enactive and iconic procedures and extrapolate the possibilities of the different symbolic forms that might naturally follow. (A careful study of Malayalam Metre presented in Chapter II can give some useful ideas.) Such forms should be done only for increasing appreciation which could be taken into account in formative evaluation and should not go into summative evaluation and increase the curricular load.

3. Children could be invited to explore sound sequences and rhythms in various ways. After they get mastery with this experience they will realise that certain patterns will emerge naturally – primarily in the area of language and mathematics. To begin with such patterns may be studied qualitatively in what Whitehead calls the ‘Romance’ phase. Gradually the ‘precision’ phase also may emerge, which could lead to clear formulation
of a topic for research, and when the research is completed some useful 'generalisations' may also emerge. This rhythm of romance-precision-generalisation is as important as Bruner’s triad and should be kept in mind in seeking and formulating new worthwhile problems.

4. In studying rhythms the construct of Abraham Maslow that “Rhythmic activities trigger peak activities in children” and “if children start learning in the peak experience mood they can achieve several times more than what they could achieve in the ordinary state” can help to trigger fertile areas for study. Here too if a first phase of preliminary exploration following the modes of music educators like Zoltan Kodaly and Carl Orff (see Chapters II and III) is adopted a number of new ideas for research will emerge covering language and other subjects, and after some initial exploration precisely formulated problems and designs can be set up.

5. Brunerian models of enactive-iconic-symbolic sequence was originally developed in the context of mathematics and science education. Surprisingly use of it in helping to learn prosodic rules is easiest and most economic to illustrate Brunerian principles themselves. Dr Manuel generally uses this method to teach the most significant of the Brunerian principles. Unfortunately very few educational studies are conducted in this dimension even in science and mathematics in degree-oriented research. Many people find it more convenient to compare another component of Bruner in Concept Attainment Model and compare it with other models. It is easy to design such studies because hundreds of theses are available for imitating. But most of the studies in this design give contradictory results and lie in the library without being used. On the other hand the enactive-iconic-symbolic sequence of Bruner is much more powerful for making specific contributions in the teaching, particularly in science, mathematics, and geography. Such studies should be popularised. If one cannot develop a tight design in this model, qualitative studies will yield even better results that can transfer to school conditions.
D. IMPLICATIONS FOR EDUCATIONAL THEORY AND PRACTICE

6. This study has shown that the constructs adapted or developed in this study for making even the formal rules of Malayalam prosody interesting and meaningful have been effective. Earlier one reason for omitting much of the formal grammar from the high school syllabus was that grammar was taught as an end in itself and not in relation to the live language. Tagore’s statement, “We rob the child of his language to teach him grammar” was clearly demonstrated in many schools even up to the turn of the millennium. But many teachers now tend to run away from grammar altogether. This can result from our losing important elements from our cultural heritage. Hence grammar, not only of poetry, but also of other aspects of language, should be taught in meaningful and enjoyable ways. It should be functional. It should help to see more beauties in the languages. It should not be a substitute for language. It should not become a torture as it did earlier in the hands of incompetent teachers.

7. In the present scheme, there is still plenty of scope for doing projects and going beyond the prescribed syllabus. There is nothing to prevent pupils taking up projects around poetic themes or enriching poetry and hence learning even the kārikas on their own. If a number of pupils conduct such projects and if teachers assist them, and if such innovations get popularised prosody may come back to the syllabus – not as a load, but as an enrichment device.

8. There is a tendency in education to take policy decisions based on the performance of the average and below average teachers. When vṛttam kārikas were introduced in the school the majority of teachers taught in a mechanical way or reduce it to dry grammatical units. This became a hazard to the understanding and appreciation of poetry. So the official machinery reacted by removing it from the syllabus. But some teachers
taught these portions in creative ways increasing the enjoyment of poetry. This study has suggested some constructs that can help to enrich the teaching of language, mathematics and other subjects. These should be tried out with creative teachers and active pupils and the process and product popularised through video CDs and use of EDUSAT.