CHAPTER 1

INTRODUCTION

PREAMBLE

In primitive times there was no separate institution called the school. The culture complex to be transmitted to the younger generation was relatively simple. Most of the learning was acquired through participation in the everyday activities in the home and the community, through observation of elders at work, and through informal apprenticeship. "Folksongs, folk dances and dramas, stories and other folkloric elements such as proverbs and riddles tended to represent a kind of informally designed 'curriculum' which lent continuity and unity to the community, serving the educational functions of 'conservation of the past' and 'preservation of the present.' The artefacts (boats, hunting, fishing, farming and building tools) and their use represented a practical curriculum" (Manuel, 2001).

A traditional society with a rich culture can still pass it on without the formal school. This is done through a system of occupational stratification. There are specialised communities within the total community. Each 'community' passes on its specialised competencies (which are only a fraction of the total richness of the society) to its younger members.

With the onset of modernisation, the culture became extremely complex. Transmitting the whole of it in informal ways as in the primitive communities was unthinkable. Even the method of stratified specialities was impracticable – because much of modern knowledge and skills came about in 'open' ways, and nothing could prevent such knowledge from spreading in 'open' ways. Much of the transmission on the old caste or guild lines was also breaking down under the impact of modernity. Under these conditions a way of condensing the extensive knowledge available to the total society and offering it on 'open' and equal terms at least theoretically to all members of
society had to be developed. Though all this was not consciously spelt out, a number of trials and errors in this direction led to the gradual evolution of the modern school.

John Dewey summarises the functions of the school in modern society in the following terms:

1. to provide a simplified environment
2. to provide a purified medium of action
3. to balance the various pulls exerted on the child by the different social agencies and help him/her to rise above the limitations of the immediate environment
4. to help the child to balance the various pulls and drives within himself and help him realise himself (Dewey, 1899; summarised in Manuel 2001).

In actual practice, even the so-called modern school carried over many dysfunctional elements of the earlier stratifications. Education continued to be determined largely on class or caste lines. The development of ideologies of equality and democracy aroused the consciousness of people to extend education to all. The rapid expansion of labour-saving devices through modern technologies enabled the mass of workers to have more leisure and paved the way for all children to go to school, conceived on modern lines. The nations which got industrialised earlier set up a certain models of schooling, and the colonising nations attempted to spread some of these (in modified forms) in their colonies.

But the modern school system organised in India on the principles inspired by Macaulay gave excessive importance to verbalism and to Anglicism. Many people sent their children to school in order to gain a verbal education which would be a passport for white-collar jobs. Thus they got cut off from the community and from the vocational springs all around. This blind faith in the isolated school education persisted even after the phenomenon of educated unemployed reached huge proportions.

These defects were noted by eminent educationists even during the British period. But the system of verbal education serving as a mode of selection for
higher studies and professions had a powerful influence in preventing all attempts at effective reform. The modern progressivist concept that even for a verbal or symbolic type of education, active interaction with the environment could provide a better base had not reached the vast masses of people, or even the majority of educational decision-makers. This state of affairs prevailed even in countries which are now considered as educationally advanced.

Rousseau was the first to break the image of the school as a beneficial, educative agency. He was followed in recent times by others like Reimer, Goodman and Illich. These revolutionaries suggest not merely the reforming of the school, but its substitution by some other arrangement for the education of children. Rousseau attacks the school on the ground that it makes pupils slavish, passive, conforming to the existing order; it suppresses their individuality and imposes cruel punishments on them. He pleads for a type of natural, free, independent, life-related education. He thunders:

All our wisdom consists in servile prejudices; all our practices are nothing but subjection, obstacles and constraint. Civilised man is born, lives and dies in slavery: at his birth he is wrapped in swathing bonds; at his death he is nailed in a coffin; throughout the time he wears the image of man, he is chained hand and foot by our institutions.

On the positive side he gives several suggestions: "Observe nature and follow the route which she traces for you. She continually exercises the child." Rousseau gave several practical suggestions especially for discovery methods and for learning from nature. His greatest theoretical contribution was that of negative education, allowing the child to develop his capabilities without external pressures.

Among other iconoclasts of the school, Reimer argued that the school is dead, Paul Goodman claimed that the school provides compulsory miseducation and Illich advocated deschooling of society. But all these critics end with a positive note, suggesting a broader and more relevant educative system than what the school provides. In his Tools for Conviviality (1973),
Illich proposes a rival strategy for the growth of industrial societies and suggests a new kind of organisation, a new concept of work, the 'deprofessionalisation' of social relations including education and the school. Convivial institutions are characterised by their vocation of service to society, by spontaneous use of and voluntary participation by all members of society. Even in *Deschooling* Illich suggests four webs or networks of exchange that might contain all the necessary resources for effective learning.

In our country, prophets of education and of nation-building like Tagore and Gandhiji argued for taking into account our own traditions and adding relevant modern inputs. They too pointed out the irrelevance of the school system set up by the British administration and offered alternative models. In 1901 Tagore started the Ashram school in Shantiniketan where pupils and teachers lived together in a natural setting. His experiments at Viswa Bharati and Sri Niketan were also imbued with the spirit of community, inquiry, activity, use of the mother tongue, music and dance, and intimate association education with the life of the people. The school or university must become the centre of the country's way of living.

Gandhiji's critique of the existing school system was based not on speculation, but on actual experience of better models tried out first in South Africa (Phoenix farm, 1904, and Tolstoy farm, 1910) and later in India (Sewagram, Wardah). His disciples tried similar work-centred educative communities in several parts of India. Gandhiji's ideas on drawing out the educational potentialities of productive work are close to the ideas of Marx and Engels and of John Dewey. But in spite of the soundness of Gandhiji's ideas, they were distorted in the public education system administered by bureaucrats. Correlating learning with the crafts was not easy for most teachers. Besides, the uniformistic administrators propagated spinning as the main or only craft, because they found it easy. G. Ramachandran gave a broad perspective of multiple crafts with high educative potential, and the concept of the *craft as the meeting point of the natural and social*...
environments. Basic education was administered on a large scale in many states, but gradually watered down and finally withdrawn. The diluted forms, such as work experience, and socially useful productive work were also taken seriously only by a committed minority.

One reform which did create an impact in Kerala was the District Primary Education Programme (DPEP) which involved a curriculum reform in the direction of more child activity, more integration and more use of community resources on a scale never done earlier. The curricular reform was extended up to the end of the upper primary stage. But at the time when the change was to have been extended to Class 8, there seemed to be change of policy on the part of the new Government. Even among experts there seems to be some difference of opinion about the issue. In any case, some unique innovations in environmental and community-related pedagogy had been set afloat on a large scale. Perhaps along with some unique achievements, some errors too had been committed, creating a situation which needs to be subjected to deeper exploration. This does not seem to have been done. As this experiment is taken up as a case study later in this thesis, it is not elaborated further at this point, except to note that this transitional zone is an ideal point to an inquiry into this very important issue from the point of view of the school, community and education.

Premature division of knowledge into various subjects may appear systematic but to many children this may appear fragmented. Such knowledge does not automatically get integrated into the pupil's inner schema and with his being. But integrated approaches when attempted are also resisted, by or on behalf of the very groups which might stand to benefit by such approaches, because even many decision-makers in education do not understand the full implications and operational strategies of the integrated approaches. Sometimes initial 'visible errors' in the practice of a far-reaching scheme vitiate it, hiding many successes and good features. There is also a traditional view of the school as a subject-centred specialised
agency, helping the poor to escape from their daily life and labour in the community, which stands in the way of progressive reforms. The fact that many among the poor are not able to cope with isolated formal schooling, the road to what they consider Utopia, leads to losing the benefit of both the worlds, is hidden to view in this debate. The experience of many progressive systems, which attempt integrated, work-centred approaches that really facilitate academic achievement, is also discounted in this discussion.

The experience of relating education with the community living and activities has been attempted in India in the 1950s in the form of basic education and was given up, because the system could not understand and assimilate its spirit. The District Primary Education Programme in Kerala, which too attempted activity-centred and community-centred contextualisation also met with a lot of resistance, and whether the good aspects demonstrated already in at least a good proportion of progressive schools will get assimilated and developed under the more comprehensive Sarva Siksha Abhyan to be implemented – only time will tell. It is in this background that the present investigation has been taken up.

SIGNIFICANCE OF THE STUDY

The educational system in Kerala has been criticised on several grounds. These include bookishness, verbalism, compartmentalisation, passive, dependent learning. But when the traditional teacher and the orthodox administrator are confronted with these problems, they try to defend the status quo on the ground that they lack facilities and resources to apply modern approaches. Kerala is a highly literate state, spending a very high proportion of its budget for education. Almost the entire amount thus allocated for education goes to meet the salaries of teachers, officers and other education personnel. Very little money is left for improving the infrastructure, equipment and other teaching aids. Let us imagine a situation where the medical establishment spends almost its entire budget for the
salaries of doctors and nurses, and hospitals are left without the necessary equipments. A big hue and cry would be raised by the entire public. But when schools are starved of needed equipment and when in the name of education, a process of dictation of notes, drill in questions and answers as preparation for examination goes on, bypassing the real functional curriculum, public conscience is not aroused. Many people and even some educationists think that this kind of children sitting passively in class for most of the time, and being subjected to this formal question-answer drill is the hall-mark of good education.

So far as the most intelligent pupils in the class, this process is a gross waste of time – subjected to ‘being taught’ for several hours what they could have learnt by themselves in a few minutes. A large section of pupils – perhaps more than half the school population – are not able to cope with even this truncated learning matter. It does not ‘stick’ because it does not capture their interest and is not linked with their experience. More drill, special classes and imposition in this isolated atmosphere does not help. Most of this class of pupils leave the school as ‘failures’. Many teachers tell these pupils that they are good for nothing and break their self-concept. In order to improve results they concentrate on a section which is just below failure mark on rote memory tasks. Even from the academic point of view, this is a highly unproductive procedure, because those who fail forget what is learnt before the examination, and those who pass, except for a small minority who have really assimilated learning, forget what is learnt soon after the examination.

Though our training system talks about the importance of activity methods, involving the pupils in what they do, it is seldom practised. It is possible to keep everyone active and involved in educational tasks using suitable ‘pedagogic engineering’ approaches. Many progressive systems have actually succeeded in devising such approaches. But such approaches are attempted in Kerala, mainly in non-class situations by some good science club masters and other creative teachers, who constitute a microscopic
minority. On the whole the typical classroom in Kerala presents a mechanical, routine atmosphere, sometimes bordering on the dull or even hostile. It would be interesting to explore whether an active investigative atmosphere can be cultivated in the average Kerala classrooms at an affordable cost.

Many teachers say that they are not able to use active methods because they do not have the laboratories and other infrastructure needed for the purpose. As compared to other states the Kerala Government allots a very high part of its budget for education, mostly spent on personnel and administrative costs. There is very little money left for improving the quality of education, for constructing and equipping laboratories, supplying teaching aids or for taking the necessary steps to create a stimulating learning environment.

There have been attempts to fill in this gap through centralised planning at the national level. Years of deliberations have gone on in the area of 'Operation Blackboard' (which incidentally covers not only the blackboard, but also other amenities which schools lack, including laboratory equipment). Crores of rupees have been spent for preparing laboratory kits centrally and delivering them to schools. But it is alleged that in many cases the packets are not opened, or kept under lock and key on either of two pretexts: (1) the teachers are not trained to use the materials; (2) if there is loss or damage to the equipment, the headmaster will be held accountable. It is alleged that senior headmasters on the verge of retirement are particularly prone to avoid opening the packages at all. Cases have been reported of teachers persuading the head to open the packets, and finding that the materials in the primary school kits were substandard, non-durable, and lacking in manuals of how to use. It is reported in many cases that the supply and need did not often coincide. Meanwhile the schools remain deprived of educational aids and appliances.
Enterprising teachers who know how to look around with a pedagogic eye do manage to tap out the rich pedagogical potentialities of the environment. But this practice has not caught up on a side scale. Under the recent curricular reforms, the teachers in the DPEP districts were encouraged to prepare their own improvised aids and appliances, and also to help children to explore the environment and the community. But the scheme seems to have received a jolt from the top level administration.

This creates the case for decentralising the problem of tackling the shortage of equipment. If teachers are trained in improvising needed teaching materials, reading the physical environment and other community resources, a vast amount of hidden potential would have been unravelled. Some educational decision-makers talk glibly about education in the environment without understanding the full potentials. Some teachers and administrators reacting to the charge that classroom teaching is cut off from the environment arrange to teach the whole class under a tree, but the atmosphere is typically formal, with the blackboard, the learners sitting in fixed rows, taking notes, answering teachers’ questions etc. Such scenes can be seen in Television showing adult or ‘nonformal’ education classes. This is not a case of genuine environmental education, but rather one of making the environment into a formal classroom. On the other hand there are cases of ‘letting children loose’ in the environment without adequate guidance or investigatory questions. This model of extreme flexibility without any control will be as unproductive as the extreme rigidity carried into the environment.

On account of these two extreme positions, the public and even ‘experts’ tend to be polarised into two sects – those who stand formal and systematic teaching of the subjects in the classroom and those who stand for child-friendly, activity-centred, environment-oriented pedagogy. There has been a tendency in education to set the child and the curriculum as opposed to each other in the education process. But this problem had been dialectically
resolved over seven decades ago by John Dewey in his *The Child and the Curriculum* [extracts reprinted in Golby (ed.) (1975)].

According to Dewey the fundamental factors in the educative process are an immature, undeveloped being; and certain social aims, meanings and values incarnate in the mature adult. The educative process is the due interaction of the two. But it is easier for many people to see the two conditions in their separation, to insist upon one at the expense of the other, to make antagonisms of them, to seize upon one of the two — the nature of the child, or the developed consciousness of the adult — and insist upon that as the key to the whole problem. The child’s life is integral, total. It passes readily from one topic to another without any consciousness of transition or break. But in school the subjects are classified. Facts are torn away from their original place and rearranged with reference to some general principle. Classification is not a matter of child experience. Things do not come to the child’s mind pigeon-holed. The adult mind is so familiar with the notion of logically ordered facts that it does not recognize the child’s difficulty in this respect. John Dewey’s resolution of the problem is as follows:

Abandon the notion of subject-matter as something fixed and ready-made in itself; cease thinking of the child’s experience as also something hard and fast; see it as something fluent, embryonic, vital; and we realize that the child and curriculum are simply two limits which define a single process....It is continuous reconstruction, moving from the child’s present experience out into that represented by the organized bodies of truth that we call studies....Hence the facts and truths that enter into the child’s present experience, and those contained in the subject-matter of studies, are the initial and final terms of one reality. To oppose one to the other is to oppose the infancy and maturity of the same growing life; it is to set the moving tendency and the final result of the same process over against each other; it is to hold that the nature and the destiny of the child vie with each other.

The ‘old’ education tended to ignore the dynamic quality, the developing force inherent in the child’s present experience. Three typical evils follow from this: (1) lack of organic unity with what the child already has; (2) lack of motivation; (3) even the most scientific matter arranged most logically loses this quality when it is presented in external ready-made fashion, by the time it gets to the child. Hence it is necessary to combine the logical and the
psychological. The value of the formulated wealth of knowledge cannot be ignored, but it must enable the educator to determine the environment of the child, and thus by indirection to direct. When this is effectively done under these conditions, the children, by their own activities move inevitably in this direction, towards such culmination of themselves.

Other integral educators like Gandhiji and Tagore have also questioned the excessive importance given to dead subject matter. Dewey starts from the antithesis of child and subject, and finally resolves it in terms of the created environment, which would be educative, and draw the child towards increasing assimilation and organisation of the subject matter, though the subject is not the starting point. Gandhiji and Tagore have focused the nature of the educative environment and community, and emphasised equally the importance of the child who learns and becomes. Many modern pedagogic processors, especially the mathematics and science educators who have done a lot to develop optimal learning environments in which child would be naturally drawn to explore, observe, analyse, classify, organise, generalise, apply and verify etc. have made enormous contributions to break the separation between the child and the subject. This is done most effectively by transforming the school into a learning environment.

During the past three decades a lot of very technical ways of effecting education for, in and through the environment has been developed. (Vide extracts from Saveland (ed.) 1976, reviewed in Chapter II). Environmental Cognition (vide extracts from Moore and Golledge (ed.), 1976, and Spencer et al., 1989) is a branch which has developed enormously during the same period, in some respects superseding the findings of Jean Piaget which were available for two or three decades before being applied seriously in many systems in the 1960s. These studies reveal that the physical environment is not simply a neutral background for social interaction and individual development, but has a profound influence in suggesting, shaping, facilitating and sometimes preventing behaviour. Although an individual can obtain
environmental information indirectly (e.g., from maps, photographs, verbal descriptions), the source of nearly all environmental knowledge is the individual's own direct experience of the world. It would be useful to explore the modern developments in environmental education and environmental cognition superimposed on some of the incompetent attempts at using the environment, isolation from the community, and insensitiveness to the present and emerging environment.

There are several studies, particularly those initiated by Department for International Development (DFID) (formerly ODA) of UK in the 1990s which emphasise three agencies which should contribute to the education of the child, but which often work without coordination, sometimes even at cross purposes, namely, the home, the school and the community. Sometimes school reformers, realising that the 'isolated classroom' may not be the ideal agency to 'shape the destiny of the nation' draw out plans to enlist the cooperation of the home and community for the cause of the education of the child. Such institution-to-institution cooperation attempts have not always yielded much benefit. The DFID document edited by Taylor and Mulhall (1996) has focused an innovation, of using the learner (coming in the intersecting sets of the three institutions) as the natural factor that could link these three agencies for the cause of the child's education. Since these are documented in detail in Chapter II D, it is not felt necessary to spell out the details here except to note that the contextualisation of education in the intersection of the home, school and community is an important factor in current international thinking that needs to be taken as a factor in studies oriented to enlarging school learning through tapping the resources of the environment and the community.

It is not as if the British Overseas/International development agencies are attempting something in the developing countries what has not been attempted in a different form in the United Kingdom itself. The Educational Priority Area (EPA) concept arose out of the Plowden Report in the United
Kingdom. In these disadvantaged areas, the children's home environment is far from meeting the minimum school readiness and school adjustment needs. Hence the Report recommended community schools. The community school is normally seen as a method of achieving harmony between school and community. But Midwinter (1972) thinks that it could go beyond that and suggest an end as well as providing a means. There is a fundamental need for communal regeneration and resolution of the dreadful social ills that beset the inhabitants. Midwinter argues that community education is different from compensatory education. He exposes the futility of many things done in the name of compensatory education. He makes out a case that the children in these localities should form a stable base of their own locale, and with this they can look outwards to wider frames of reference. In short a strong case is made out that even for a child from a poor environment, the pedagogic understanding of the immediate environment can be a powerful educational wealth. On the other hand, Merson and Campbell dissent with the view of Midwinter, and argue that Community Education is Instruction for Inequality. They believe in the logic of the curriculum and the criterion of rationality (which is drawn from the grammar school experience) (à la Hirst 1969). But then John Dewey who insists that the child's experience should be the starting point is no less a logician than Hirst. This is noted at this point because there are several progressive thinkers who insist that the child's immediate environment and community is the immediate resource on which the school has to work, and such people have done much work with actual disadvantaged communities. There are also those who dissent with the priority of the immediate environment. Their argument is based mainly on à priori grounds.

Similar dissent about environment and community-oriented approaches could be seen in Kerala too. In December 2001, the present investigator was fortunate to be able to attend an international seminar held at Trivandrum sponsored by UNICEF and organised by the Centre for Socioeconomic and Environmental Studies, Cochin. Delegates from different Indian states where
child-friendly primary education making use of environment and community is attempted attended the seminar and presented papers. The representatives of the international and national bodies, all the delegates from the other states, and most of the delegates from Kerala projected the new curricular approaches in a positive light. Two or three delegates from Kerala presented the counter case strongly. In spite of the apparently overwhelming case made out for the new approach in the conference, the new Government and the Department of Public Instruction do not seem to be very enthusiastic about it. This kind of difference of opinion about a crucial issue strengthened the case for conducting detailed investigation on this area. Two papers presented in the conference made out a clear case for the environment-oriented approaches – at the same time taking precautions to avoid or correct the mistakes incidental to such approach (Rampal, 2000, Manuel, 2000). They are reviewed in detail in Chapter III.

Towards the closing phases of this study, this investigator had the privilege of getting an encounter with the Proceeding of the Fourteenth Kerala Science Congress, January 2002 (M.R.Das ed. 2002). It was seen that a number of studies in the area of environment, ecosystem, and some studies in which scientists work in projects of the local bodies reveal their interest in this area. In studies in which research is closely tied with extension, the scientists themselves appear in the role of androgogists, educating the adults about new and scientific ways of meeting environmental problems. This suggests that pedagogical research also must take up this, challenge, and bring educational research to the problems of the interface between the school, environment and the community.

A detailed survey of literature showed that there is no danger of unnecessary duplication in this research. Environmental studies or those studies including environment-oriented models as a component for mapping the resources for education are relatively few in India. One school of research which has attempted to map these out systematically has attempted progressive
differentiation – starting from ethno/environmental botany, through mathematics, subculture, culminating in developmental orientation. The environment cum community orientation focused in this study will ensure sufficient novelty to justify a fresh study on this aspect. Even though the term 'environment' gets repeated in the string of studies, the conceptual and geographical area, the approaches etc. are varied so that there is no unnecessary repetition.

STATEMENT OF THE PROBLEM
For the reasons stated above the investigator decided to conduct a study on:

*Developing and Testing Integrated Educational Models Using Environment and Community Resources.*

DEFINITION OF KEY TERMS

Community

A community is a localised society, whether urban or rural-oriented.

The term community has been defined in more than a hundred ways in books on sociology. Yet sociologists are able to work with it for the development of their science without a single precise definition because the shade of meaning in the particular context would be obvious in the particular context, or it would be specifically brought out during the relevant discussion. The natural scientists speak of a plant community in the meaning of a common habitat occupied by a variety of plants. From this analogy sociologists weave several definitions depending on the context in which the term is used. In the present study also it is felt that absence of a single definition would not hamper the research. The community may sometimes refer to an informal organisation (e.g., a community of scattered farmers), or it may refer to a formal organisation. The definition of community changes as one uses the term in different frames of reference. In this study multiple frames of
reference are used. A few definitions relevant for the present study are presented below:

Koenig (1956) defines the community as "a global society of a kind that has a local unity, with an indefinite number of institutions, social groups and other phenomena within it, and besides a great variety of association forms which operate within the mentioned groupings and also the obviously essential outside organisational contacts."

Talcott Parsons (1951) defines community as "that collectivity the members of which share a common territorial area as their base of operations for daily activities".

Maclver (1932) defines the community thus: "any subclass of people who live together, who belong together, so that they share not this not that particular interest, but a whole set of interests wide enough and complete enough to include their lives in a community". This definition covers a variety of communities ranging from a primitive face-to-face village to a cosmopolitan city. Community is not static, but is subject to change.

Americans use the term in a variety of special ways. A 'community center' is a place, often in a residential area, where groups of people have their meetings of social gatherings or where children come to play and where young people may hold their dances.

Community organisation is a term used by recreational leaders, welfare workers and others to describe local programmes for organising and leading community life.

Anderson explains the concept of community in practical terms. Socio-psychologically, a community exists in the minds of people living in an identifiable place. But the community is also a visible reality of buildings,
streets, parks and private property. The visible properties of the community are interrelated into a single structural pattern. They are the operating facilities, the plant of the community. The community is also an aggregate of consumers whose needs must be protected. The community includes a variety of producers, with increasing complexity of functions. Community members have distinct rights and responsibilities.

**Resources** include both material and human resources.

**Community Resources** include everything in the community that can be used to illustrate a concept, generalisation, value or human conflict. Such resources include every community situation in which the children apply an intellectual or social skill and every experience that allows them to express their feelings and clarify their values (Kaltsounis, 1979)

**Environment**

Environment is the milieu in which the individual lives and learns. It includes the physical environment which is most visible and the social environment which is only indirectly perceptible, but whose pressures are still felt by the individual. Environment includes the natural as well as the man-made environment. One important aspect of the environment is the built environment, especially habitation. Human shelter, like clothing, is a non-biological adaptation to external conditions. Man is physically ill adapted to withstand the rigours of climate, but his intelligence and dexterity provide compensation by enabling him to manipulate the external world to fit his needs (Chandhoke, 1994).

Environment includes:

1. The physical environment (both natural and man-made) environment
(a) as a context which could provide the content for the child to construct curricular structures;
(b) as a stimulus – as a challenge posing problems in the solution of which integrated learning emerges;
(c) as a disequilibrant, challenging the pupil to make discoveries and building new mental schemata;
(d) as an illustrational and applicational field for the ideas studied in school.
(e) as an invitation to aesthetic appreciations;

2. The Spatial-symbolic environment inviting the child not only to develop graphicacity, but also to explore different kinds of spaces and symbolic systems
3. The creative environment (e.g., the Kunchan Smārakam at Ambalapuzha)
4. Different socio-cultural environments and climates

**Integration** can be thought of in different ways as:

bringing together the subjects artificially divided in the time table and in the school curriculum into unified themes,

'internal integration' within the growing child.

unifying different sections of the social strata; the school can be a factor in helping social groups separated on lines of caste, creed, economic status, occupation etc. to come together for the cause of education of children. Pupils who were usually 'segregated' in the school system were attempted to be integrated in the new primary school, reform. In the District Primary Education Programme, the IEDC (Integrated Education of the Disabled Child) has taken special steps to bring even disabled children (up to a limit) to the common school and created conditions for them to learn along with normal children.

Linking the home, school and the community, which often operate without coordination, and sometimes with cross purposes.

Bridging several dichotomies, such as child and subject, labour and leisure, vocational and liberal, the elements in each pair being considered antagonistic – on the lines developed by Dewey and Gandhiji.

Integration need not necessarily be considered as putting together things that are found disparate. In so happens that in our schools and in society, we do
find the dichotomies and isolations indicated above, and these isolations need to be broken. But in the models to be developed, if the choice is available, it is not proposed to create the atomic units first and then unite them. It would be more natural to create the whole organically whoever it is practicable.

**Education** is not identical with schooling. Most of the masters of critical pedagogy – Rousseau, Illich, Goodman and Freire - say that what the ordinary formal school provides is not education at all. Education is not stuffing more information into the child’s mind. Gandhiji, Tagore, and most modern thinkers consider education as drawing out the inner powers of the child for the best under the proper social conditions. It involves both individual self-realisation and social adjustment. It is possible to get educated without the school. Some personalities whom posterity has adjudged to be most highly educated were not ‘schooled’, or dropped out of school every early. It is also possible to get thoroughly schooled without getting really educated.

The stance taken in this study is to explore whether the school and its environs can be made truly educative or at least move in that direction. The discriminating and optimal use of environment and community resources may help to make the school educative.

**Models**

Robbins (1996) defines model as "an abstraction of reality, a simplified representation of some real world phenomenon."

Siddiqui (1991) 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) think of 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, Weil and Showers (1992) define a teaching model as "a plan or pattern that we can use to define face-to-face teaching in classrooms or tutorial settings and to shape instructional materials." They conceive of it as a prescriptive teaching strategy designed to achieve specified objectives for students' learning. For them models of teaching are models of learning too, since they will strengthen the students to become more effective learners. In this study the term 'model' is used in a much broader framework than that given by Joyce, Weil and Showers.

Kaplan (1964) classifies model as: analogue models (related to a physical system), semantic/figurative/metaphoric/verbal models, schematic models (integrating theory and real world situations), mathematical models (generalised models applied to a measurement problem), causal models (mathematically expressed, and useful from the logical and analytic point of view.) In the present study the last two types of models will not be attempted. The second type – semantic, figurative, metaphoric, verbal and schematic are likely to come in more naturally.

Silverman (2000) looks upon the model as an overall framework to visualise reality. He places the model on the top of a hierarchy of theoretical framework in which the lower ones are: concept (an idea deriving from a given model, e.g., oppression), theory (a set of concepts used to define and/or explain some phenomenon), hypothesis (a testable proposition, methodology (a general approach to studying research topics, method (a specific research technique) and findings, coming at the bottom.
OBJECTIVES OF THE STUDY

1. To sensitise teachers and educational workers to the pedagogic potential available in the natural and social environment.
2. To identify local resources relevant for transacting various aspects of the curriculum.
3. To facilitate the investigation of the natural and social environment to realise the objectives of education.
4. To help pupils acquire a variety of skills and competencies.
5. To help the school transcend the compartmentalised and isolated pedagogic transactions through integrated approaches.
6. To present cases – individual and institutional – of effective educational use of the community that could inspire and inform educational workers.
7. To conduct pedagogic analysis relevant for proceeding from holistic experiences to the specific, from application to principles etc.
8. To develop optimal models for the use of community resources in education.

HYPOTHESIS

In qualitative research, most of the relevant hypotheses occur during the investigation and are followed by improvisation of methods and testing. A few hypotheses did arise during the investigation. In the presentation of the findings the hypotheses also may be embedded implicitly or explicitly.

SCOPE AND LIMITATIONS

The framework of the present study is drawn largely on qualitative research approaches, which tend to be ongoing, continually unfolding in the natural setting. So the study could not delimit its boundary precisely during the state of designing. A lot of open exploration about how to use the environment, identify the community resources and probe them deeply to identify
resources for use in children’s learning had to be done. Only gradually could the line be drawn as to where to stop; and the line was never very prescriptively drawn like Lakshman rekha. Apart from actual objects and situations, documents also are powerful potential resources. Here too the initial moves were extremely open explorations, with gradual delimitation of the sources and focusing of points of view from which they should be analysed.

The criteria for gradual delimitation could be on the geographical dimensions as well as on the conceptual dimensions. On the conceptual side, simply wandering about in the environment will not yield the pedagogic resources, either in teaching or in research; there must be at least some tentative ideas about what to look for. The conceptual survey of literature (Chapter II) provided some mental frameworks about what to look for and how to select the pedagogically relevant ideas and use them. Within several possible areas that have developed in recent times, Environmental Education, which has emerged as a special field starting from Stockholm Conference (1972) (Vide Saveland ed., 1976), provided some very useful frames for how to tap the environment for pedagogic purposes. Environmental Cognition is another branch which adds new dimension to the cognitive psychology constructs emerging from earlier studies on Piagetian lines. Intimate purposeful experiences in the natural environment are now shown to help the children to learn much more, and much earlier than what was previously supposed possible. This is one perspective in which observation of the environment was directed, and partially delimited. For the community perspective, the Plowden Report has given some ideas about the educational wealth embedded even in weak environments. Though nearly four decades have elapsed since the Plowden initiative, they are still relevant for our conditions where effective primary education for all is still eluding even an advanced state like Kerala. Though only two papers are cited covering this perspective, they focus the essential aspects – highlighting the wealth from the weak, as the thesis, and the antithesis which argues that this could lead to
inequality. When the British experience on the lines is broadened out into contextualisation studies in developing countries, the number of studies available is far more numerous. All these suggested analogies for the conduct of the present studies.

The frameworks presented above have been validated in foreign settings, though some of them are conducted in developing countries with transfer value for Kerala. Indian studies at some theoretical depth come from the analyses and researches of Manuel and co-researchers. Exemmal's studies (1974, 1980) were perhaps the earliest studies systematically mapping out the educational potentialities of ethno botany and environmental botany. Subsequent studies of this school have progressively mapped out different areas or refinements in the environmental scope. This will be made clear in Chapter III. But at the moment it is important to state where this study expands or deviates from earlier studies in this family.

But the major contrasts between pioneering studies of Exemmal and the latest closely related study of Krishnankutty (1997) may need to be pointed out here. Exemmal's study was limited to botany. It went into certain 'precision' dimensions such as preparing taxonomy of educational objectives drawn from ethno botany and environmental botany. It also conducted a parallel group pre-test post-test design matching several factors. The present study and that of Krishnankutty are stronger on the qualitative than on the quantitative dimensions with higher transfer value for teachers. Both the studies have a quantitative dimension too, but the most transferable aspect is the models and episodes. But the models and episodes will be different, even if there is some overlap, there will also be a difference, e.g., the chakara (mudbank) episode might seem to be common. But the mudbank phenomenon which occurred near Alappuzha during the time of investigation was a different one from that observed at Perinjanam, with different characteristics, with different reactions from people. The way of treating them is also different. Several new episodes are presented here.
Krishnankutty's study was limited to coastal areas. The present study has a wider scope in terms of geographical features.

The original intention was to develop the episodes only or mainly from Alappuzha and adjoining areas (the work centre of the investigator), with the hope that some of the episodes will grow into naturalistic experiments if an identifiable interventionist element comes about. But it was found possible to identify some episodes in other regions too. Krishnankutty’s documentary analysis covered the development-planning reports of almost all panchayats around his area. In this study the number of panchayat reports analysed are less, but the present analysis includes a much wider spectrum of documents, many of state-wide significance. The method of analysis is also different.

A very interesting way in which the scope of the study expanded due to fortuitous circumstances should also be reported. It was originally proposed to collect /develop a series of episodes from observation/naturalistic experiment and draw out the environmental/ community resource drawing out potential and test them in some way. But whatever amount of hard work and thought are put it, the contribution of a single individual will be of limited value from the point of view of depth, breadth and transferability. It so happened that the DPEP scheme which also is expected to make considerable use of the activities involving environment and community resources also had been going on parallel lines in the state system, and towards the closing phases of the present study, it had reached a point of intense debate in the state. This was something about which many teachers and members of the public know something about, and on which they had definite attitudes and opinions.

So it was decided that instead of making a presentation of the investigator’s constructs and then collecting people’s attitudes/judgements about them, it would be much more natural to get the attitudes/judgements about the use of integrated activities, use of environment/community resources as they arise.
out of the state scheme and participation of teachers and pupils in it. This would entail an analysis of the new curriculum introduced during the past few years from the perspective of use of environmental and community resources. This has been done in Chapter VI A. Once this is done, the input of the state and the teachers and other participants become a fortuitous experimental input (ex post facto); and some results arising out of it could be measured. The measurement was, however, not in terms of achievement of pupils. It was impractical. It was not possible to prepare satisfactory tests in such a short period. Besides, in a heated-up, rather than illuminated atmosphere, the attitude variables were important.

LIMITATIONS

When a study goes without a well-knit pre-design, the report may not have the elegance of a perfect structure. This defect cannot be totally excluded in this report. But since the report grew out of real challenges and issues, there is likely be solid and relevant content. The best possible effort was taken to arrange the findings emanating from a variety of research approaches into a cohesive report.

The sampling in the quantitative part of the study is not random. But in a study of this kind purposive sampling is more relevant. The quantitative procedures of statistical validation coefficients and reliability coefficients were not used. But qualitative procedures of validation such as triangulation were adopted. These procedures also contribute other compensatory benefits such as transferability, authenticity.

The study has not mapped out all the possible environmental and community resources. In a sense, it is an impossible task. Even typically representative resources have not been mapped out. The main focus has been to call attention to the vast resources that lie all around without being regarded as typical educational resources. It is in this context of resource-blindness that
the study intended to open the eyes of education professionals at least in the
neighbourhood. Hence the initial episodes developed were in the areas close
to the investigator's work spot, Alappuzha. Gradually the investigator spread
out her episodes and increased their variety. The identification of the
varieties of ways of educationally using event and situations that are not
normally considered as educational resources got more focus than the list of
resources. The rationale is that if a sufficient variety of situations is newly
identified as educational resources and if workable ways of using them have
been shown a useful contribution would have been made.

There are some obvious resources like the museum, which have all along
been recognised as community resources for education. Such resources
have received less emphasis in this study. There are some which have been
covered fairly well by earlier investigators such as Benedict (2001). They
have also been underplayed. There are many resources that have been very
well covered by teachers and educational reformers at the lower level, but
not sufficiently recognised by official scholarship. In such cases the gap has
to be pointed out and filled. This has been done in this study.

The study has attempted a combination of qualitative and quantitative
approaches with a view to getting more relevant findings usable by the
teachers. But such attempts can never be perfect. Similarly the models
developed can still be improved. These are only suggestive models, not
prescriptive ones. Taking into the time and other factors, the investigator has
done the best she could.

With all the limitations recognised, it is hoped that this study has presented
some useful findings that have not been brought out in earlier studies. It is
also hoped that the gaps left in this study will be filled in due course by other
investigators or by this investigator herself at a later stage.