Chapter 1
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1.1 BACKGROUND OF THE PROBLEM

“The cards of life are placed on the table. The success of the game depends more upon the player than upon the cards”
- Dr. S. Radhakrishnan

The world is losing its segregating boundaries through Liberalisation, Privatisation, and Globalisation. It is the need of the hour to groom students to be successful global citizens. After six decades of independence, though the process of learning has changed substantially, India looks forward to a paradigm shift in her system of school education so as to meet global standards and to mould global players. In this fray, efforts are on the anvil for drastic reforms that will metamorphosize education in India, incessantly retaining her unique value system. The basic Indian values of life as prescribed by “Purusarthas” are Dharma, Artha, Kama, and Moksha. This is a comprehensive concept of the goal of life. Sree Sankharacharya, emphasises the importance of Artha or wealth. The science of economics helps man to make a judicious use of wealth in life. Economics is a rational social science, which teaches us a number of life-lessons to make our way through the difficult terrain of life. This should not be misconstrued to mean that those who have had no formal training in economics are not rational in tackling the odds of life as they come to them. What is important is to be rational, whether one learns it informally on
one’s own, or formally through the study of economics. In fact, rationality is in-built in the human system. The inner-voice within the inner self always guides us to behave rationally.

Economics teaches us many important lessons of life. It is a matter of extracting these age-old truths, and practising them for our overall well-being. In this sense, economics can easily be compared with the various scriptures, which tell us the good things of life, but it depends much on our efforts to equate these precepts with practice. It will not be an exaggeration to say that like the Bhagavad-Gita, one of the most sublime of world scriptures. Economics has always been relevant and contemporary: economics is about living, not having; it is about action, not inaction; it is about work, not charity; it is about duty, not reward. The doctrines of economics are healing, and offer solutions to our everyday conflicts. They preach to us to face the tasks and responsibilities of every day life. The Bhagavad-Gita conveys to us a message on economics, viz. **Life is Work – the Path of Action**

The message of “work” is explained as:

*Action is better than inaction.*

*Do thou, therefore, thy given work;*

*Without action, the very life in the body could not be.*

*Thy right is to thy work alone,*

*but never to the fruits of work;*
let not the rewards of action be
thy motive; nor yet be attached to inaction.

The message of "wantlessness" is explained as:

Insatiable is this fire of desire,
the constant enemy of the wise,
that clouds and envelops wisdom.

The message of "rationality" is explained as:

He who does his duty without
expecting the reward of its fruit
is both a Sanayasi and a Yogi.

Although economics, on occasions, has been misused in a number of ways, both by nations and individuals for their own vested interests in the guise of leftist or rightist economic doctrines, it offers a philosophy of life and a way of living. It has the capacity to take us to the ultimate state of human happiness and bliss. It has never been a dismal science, as it is thought by some in terms of its incapacity to be result-oriented. It is in fact a revolutionary science, not in a limited sense of the terminology. The Keynesian revolution teaches us to be happy and contented, and that is the ultimate goal in human life. If the precepts of economics are practised in the right way, it can revolutionise one’s life and lift it to a blissful state.
Thus, Economics is the study of choice and how choices made by individuals and society affect our standard of living. Its subject matter is society, how people choose to lead their lives and how they interact. Economics uses the methods of science for solving the fundamental questions and problems faced by society. By doing so, it helps us understand a variety of subject matter such as employment, inflation, business cycles, economic growth, markets, production, distribution, wages, profits, interest rates, money, taxes, competition, monopoly, international trade, economic history, public policy and many other factors. Educational courses in these areas range from the very practical and applied to the more abstract and theoretical.

At the higher secondary school level, Economics is one of the basic subjects of the humanities and commerce groups. Economics is a very important area of study in view of the needs, interests, capabilities and aptitudes of students at this age group. It deals with how human wants are satisfied and how the multifaceted progress of mankind is achieved through the ages. It also helps us to get an indication about the future world order. At the higher secondary stage, the study of Economics will enable students to understand the basic problems of society, i.e. the problem of scarcity and choice and how man tries to overcome this problem. Through the study of Economics, the learner acquires the ability to
interpret the current economic problems on the basis of theoretical background.

**Importance of Economics in Higher Secondary Education**

Higher secondary education envisages a learner-centred, process-oriented curriculum, which aims at the all-round development of the learner. It is expected to contain the indigenous characteristics and features of Kerala and at the same time take into account the interest of national and international factors. In this context, Economics as a discipline analyses regional, national and international developments in socioeconomic sectors and has its own significance. Learners select Economics as an optional subject for continuous education after acquiring a basic knowledge of Economics upto the high school level. Economics as a discipline unravels the correlation between man and society. Hence the study of Economics must be devised in such a way as to protect the interests of both the learner and the society.

Students of Economics must be assisted to absorb the basic theories of Economics, realise the problems related to economy, manage them, and contribute to the advancement of society. Our national leader Gandhiji was not only a social reformer but also an economist. To him, economics was a way of life and hence his economic ideas are part of his general philosophy of life. The economic ideas of Mahatma Gandhi are based on his four cardinal
principles, viz. truth, non-violence, dignity of labour, and simplicity. Gandhiji wanted a new social order in which the poor would get a just and equitable share in the gifts of nature and would have the freedom of enjoying the fruits of their labour. He was opposed to the accumulation of capital.

Students at higher secondary level will be able to understand the problems and issues that emerge in the socio-economic fields in the regional, national and international contexts. Economics helps students to analyse the economic problems such as the increasing suicides in the backdrop of increasing banking activities. Since it is a part of social science, we should try to understand how the economy of a particular region, a country or globe, functions and how to make use of the available resources so as to satisfy human wants. Just as in other sciences, in Economics too, there are laws and principles that enable us to analyse and solve economic problems. As a subject, it analyses the changes of the world such as globalisation, privatisation and liberalisation and evaluates whether these do positively or negatively affect the economy of the country.

Economics had its origins even at the time of Aristotle and Chanakya, who are known as the earliest economists and kingmakers. Thus, from the early days itself, Economics has been considered the most important subject, since it is the basic factor in the changing world. The learning of Economics must be scientific.
Most of the countries, both developed and developing, have made attempts to restructure their economic education to fit in with modern conceptions about the teaching and learning of Economics. Thus curriculum has changed in response to the changes in the world. Yet all these changes are not reflected in the learning approaches of students.

**Study Approaches of Students**

At present, there is a substantial amount of research focussing on the relationship between qualitative differences in student’s approaches to studying and their outcomes of learning. Approaches to Economics education, extends our understanding about how students study academic materials. During the last two decades, new insights in Economics education have been devised. Researchers started to describe the learning processes from the perception of pupils in schools. Lecturers make assumptions about how material might be presented, how students may be motivated, how students engage in self-learning, and how learning should be evaluated.

Research evidence has indicated the emergence of the relationship within and between the approaches to learning. One of the strengths of this approach has been the relative convergence of findings from distinctive traditions. Early research has concentrated on cataloguing learner behaviour, a part of which constitutes study habits and study methods. Previously, research concentrated on the
process of learning in such a way as to consider the personal viewpoint of the learner regarding the learning process. This learning process is termed as “student approaches to learning” by Entwistle (1990). Shemeck (1977) suggested a distinction between Deep and Surface levels of study processing.

**Deep and Surface Approaches to Learning**

The notions of Deep and Surface learning have been precisely worked out by researchers and are supported by empirical evidences. The roots of the concepts of Deep and Surface approaches can be traced back to the thoughts of Watts (1810) and Dewy (1810) who made impacts on the educational implications of study approaches, thus paving a way for more rigorous investigations in this line.

Surface approach is really rote learning and memorizing. The textbook becomes an important tool for memorization; students tend to skim what they read and only absorb superior content and meaning. Here, students do not have any personal commitment to learning. In this context, effort must be made to use suitable instructional strategies to improve the approaches to studying of students and to reorient Surface learners to Deep learners. Since economics is an important subject, the quality of Economics education given to students in the country should enable them to ask critical questions, actively relate new information to previous
knowledge, rationally and logically connect new ideas received, and apply them in novel situations.

1.2 NEED AND SIGNIFICANCE OF THE STUDY

“Society expects its teachers to care for students, to care about their learning, to be knowledgeable about curriculum, and to know how to induce learning in others” (Jeans, 1992). This expectation of knowing how to induce learning in others would appear to be obvious and yet evidence of students’ achievement in Economics at the higher secondary level indicates that teachers may need to give more attention to this expectation. In recent years, the emphasis in both research and government policy has resulted in the improvement of the quality of teaching and learning with a view to improving Education.

Millions of people move across borders in search of a better life, or any life at all. There is a bewildering mixture of uncertainty, risk, insecurity, and division and yet there are opportunities in the world. Rapid developments in technology and communication are forcing changes within educational systems across the world as ideas, values and knowledge, which are vital to education, are crossing the boundaries of nations and states. There is a new ‘social universe’. Education is one of the potent instruments for fast tracking the developmental process, provided it is properly geared for that purpose. Education should contribute to the solution of
problems of the country by developing desirable understanding, skills, abilities and attitudes. Regarding the investment of education, there is a Chinese saying:

*If you are planning for one year, plant grains,*

*If you are planning for ten years, plant trees,*

*If you are planning for hundred years, plant man.*

Thus education of the ‘human plant’ influences the economic development by providing a labour force that matches the needs of economy. The higher secondary stage is a decisive stage in the entire course of the educational career of the human plant. This stage deals with students at a sensitive stage of transition from adolescence to youth, which is characterised by the process of maturation, both of body and mind.

An important feature of education at this stage is that there is a transition from the general and undifferentiated curriculum to courses of specialised nature. Therefore, the higher secondary curriculum must meet the learner’s needs, social expectations, community aspirations and international standards. Within the ambit of systems and structures, curriculum design has an important role to play. Biggs (1990) argues that an increasing proportion of students will not be at university because of their love for a subject, but in order to obtain a qualification for a job. This presents teachers with several challenges, including encouragement
of student engagement, and planning of stimulating learning activities. The aim is to promote a level of student engagement consistent with Deep rather than Surface learning.

In Deep learning, students actively seek to understand the subject and interact vigorously with the content. They learn how to make use of evidence, inquiry and evaluation and evolve a broad view, and in so doing relate ideas to one another and to previous knowledge. They apply concepts to everyday experience and tend to read and study beyond the course requirements. They actively engage beyond reading, listening, and note taking, thus going beyond acquisition of facts. This leads to the development of higher order thinking skills like analysis, synthesis, and evaluation. They are motivated to involve in interaction and take greater responsibility for learning, thereby monitoring their own learning and discovering what they do and do not understand. Deep learning also enables them to build competencies problem-solving, critical thinking, communication, and expand content knowledge.

Learners face problems while acquiring a deep level of learning. Some of them are: missing important data; inability to separate relevant from irrelevant data; and encountering errors in encoding, operations and goal seeking. There are also problems related to cognitive overload and overestimation of abilities.
Such problems hinder students from reaching a Deep level of learning. When the learner engages in the learning process, adapting any of the suitable styles of learning, two phenomena may occur as a dangerous by-product of learning. Sometimes the learner may arrive at unsubstantiated conclusions readily or may be overcautious about the minor aspects in the learning materials. Both these phenomena are dangerous in the sense that they will decrease the quality of understanding derived by the learner at the deeper level.

In response to the changes taking place in society today, there is an urgent need for qualitative improvement in education. Students will be able to contribute to society only if they learn at the deeper level. Deep learning is a key strategy by which students extract meaning and understanding from course materials and experiences. Because of the wide range and interconnectedness of environmental, social and economic issues, and the importance of interdisciplinary thinking and holistic insight, deep learning is particularly relevant in the context of education for sustainability. Thus, Education for Sustainable Development (ESD) has become an important goal of education today (UNO). However, Deep learning can be promoted if the existing interests or backgrounds of students have a strong disciplinary focus. The higher secondary stage assumes greater significance as students move towards
diversification. As such, they are better placed to exercise a choice, keeping in view their needs, interests, capabilities and aptitudes and become reflective whenever possible, which would enable them to cope with the challenges of the world. Experts and researchers in the field of education advocate the employing of psychologically, philosophically and sociologically sound strategies of instruction that promote deep learning.

An effective way to improve the learning process is to incorporate suitable instructional strategies that will serve to inculcate Deep learning among students. Some strategies that promote Deep learning are Cognitive Strategy, Metacognitive Strategy, Social Strategy, Macro Strategy, and Resource Management Strategy. The contributions of these strategies to Deep learning have been ascertained by researches of Borkowski (1987) on Metacognitive and Cognitive Strategy, Johnson et al. (2000) on Social Strategy, Svensson (1977) on Macro Strategy, and Fraser (1997) on Resource Management Strategy. Zimmerman (1990) argues that Deep learners are metacognitive processors, intrinsically motivated, and behaviourally active participants in their own learning, and further suggests that association between motivation, environment and effort are the most important determinants of deep learning. Since all these Strategies have individually contributed to different aspects of learning, it is
expected that embedding them together may result in a pooled effectiveness. But on a survey of related literature, the investigator found that no such study has been done previously. Moreover, the investigator, who has been a student of Economics as well as a Teacher Educator of Social Science for a long while, has always felt the need for the teaching and learning of Economics at a deeper level, as this subject is part of students’ life. In the light of the prevailing conditions in the teaching of Economics in the Higher Secondary Schools of Kerala, the investigator felt the need to conduct such an investigation at the Higher Secondary level. The investigator will feel gratified if some improvement is contributed by this humble effort.

1.3 STATEMENT OF THE PROBLEM

A great majority of students, even at higher secondary level, are rote learners. An analysis of this problem points a finger to the curriculum transaction process. Cognition and metacognition also take a back seat. A shift in this state of affairs requires a shift in the strategies employed for teaching. The investigator felt that suitable strategies embedded for instruction would yield desirable results. The present study aims at preparing Instructional Plans using certain embedded strategies and exploring its effectiveness in the learning of Economics among Higher Secondary School Students. The topic selected for the study by the investigator is
entitled “EFFECTIVENESS OF CERTAIN EMBEDDED STRATEGIES FOR IMPROVING ACADEMIC PERFORMANCE IN ECONOMICS OF STUDENTS AT HIGHER SECONDARY LEVEL”.

1.4 OPERATIONAL DEFINITION OF KEY TERMS

The key terms used in the title of the study are defined below

1. **EFFECTIVENESS**, according to the Dictionary of Education (1998), means the effect of an experimental factor under controlled conditions, i.e. with other factors held constant. It is the changed result or outcome produced by an action (Good, 1973). In this study, it refers to the desired change in the learner’s behaviour as a result of the experimental intervention.

2. **EMBEDDED STRATEGIES**, according to Oxford English Dictionary (1994), implies to surround with and implant certain strategies. In this study, certain strategies that enable semantic processing and lead to better retention like the Cognitive Strategy, the Metacognitive Strategy, the Social Strategy, the Macro Strategy, and the Resource Management Strategy, were embedded in the instructional process.

3. **ACADEMIC PERFORMANCE** refers to the process of performing scholastic tasks successfully (Oxford Dictionary,
In this study, it means the scholastic achievement attained under test conditions.

4. **ECONOMICS** is a science that studies human behaviour as a relationship between ends and scarce means, which have alternative uses (Robbins, 1930). It deals with the utilisation of a country’s available resources, which in turn increases the welfare of the country’s growth and development. In this study, the Economics Textbook of Standard XI was used for the experiment.

5. **HIGHER SECONDARY LEVEL** refers to any school under the Directorate of Higher Secondary Education, Government of Kerala, that imparts instruction to students at the terminal stage of school education, viz. Standards XI and XII. For the present study, the investigator selected Standard XI.

### 1.5 VARIABLES OF THE STUDY

Variables are the condition or characteristics that the experimenter manipulates, controls or observes. They are concepts that serve a particular purpose in educational research. Dependent, independent, and extraneous variables play a significant role in the present study.

Independent variables are the conditions or characteristics that the experimenter manipulates or control in his or her attempt
to ascertain their relationship to observed phenomena. The independent variables used in the present study were

- Embedded Strategies of Teaching
- Strategies of Teaching based on Constructivism

Dependent variables are the conditions or characteristics that appear, disappear or change as the experimenter introduces, removes or changes independent variables. The dependent variables used for the present study were

- Metacognitive Awareness
- Approaches to Studying
- Academic Performance in Economics
- Retention Capacity

Extraneous variables are independent variables that are not related to the purpose of the study, but may affect the dependent variables. The extraneous variables in this study were

- Gender
- Locale of School

1.6 HYPOTHESES FORMULATED FOR THE STUDY

The following hypotheses were formulated for the study.

1. The Metacognitive Awareness of Higher Secondary School Students taught using Certain Embedded Strategies will
improve significantly as compared to those students taught using the Strategies based on Constructivism for their total sample and sub samples based on Gender and Locale of School.

2. The Approaches to Studying of Higher Secondary School Students taught using Certain Embedded Strategies will improve significantly as compared to those students taught using the Strategies based on Constructivism for their total sample and sub samples based on Gender and Locale of School.

3. The Academic Performance in Economics of Higher Secondary School Students taught using Certain Embedded Strategies will improve significantly as compared to those students taught using the Strategies based on Constructivism for their total sample and sub samples based on Gender and Locale of School.

4. The Retention Capacity of Higher Secondary School Students taught using Certain Embedded Strategies will be enhanced significantly as compared to those students taught using the Strategies based on Constructivism for their total sample and sub samples based on Gender and Locale of School.
1.7 OBJECTIVES OF THE STUDY

The objectives of the study were:

1. to prepare and standardise an Inventory on Approaches to Studying.


4. to prepare a Delayed Memory Test in Economics for Higher Secondary School Students.

5. to compare the effectiveness of Certain Embedded Strategies of Teaching with that of Strategies of Teaching based on Constructivism in improving Metacognitive Awareness of Higher Secondary School Students for the total sample and sub samples based on Gender and Locale of School.

6. to compare the effectiveness of Certain Embedded Strategies of Teaching with that of Strategies of Teaching based on Constructivism in improving the Approaches to Studying of
Higher Secondary School Students for the total sample and sub samples based on Gender and Locale of School.

7. to compare the effectiveness of Certain Embedded Strategies of Teaching with that of Strategies of Teaching based on Constructivism in improving Academic Performance in Economics of Higher Secondary School students for the total sample and sub samples based on Gender and Locale of school.

8. to compare the effectiveness of Certain Embedded Strategies of Teaching with that of Strategies of Teaching based on Constructivism in enhancing Retention Capacity of Higher Secondary School Students for the total sample and sub samples based on Gender and Locale of school.

1.8 METHODOLOGY IN BRIEF

The Quasi-Experimental Method with the Pretest-Posttest Non-Equivalent Group Design was used for the study. Purposive Sampling Technique was employed and the sample comprised of 432 XIth standard students from four Locales of Kozhikode and Wynad districts, viz. Urban, Rural, Coastal, and Tribal locales. The tools used for the study were

(1) Metacognitive Awareness Inventory (Schraw and Dennison, 1994)

(2) Inventory on Approaches to Studying (Jaise and Rajan, 2009)
(3) Instructional Plans based on Embedded Strategies

(4) Instructional Plans based on Constructivist Strategies

(5) Academic Performance Test in Economics (Jaise and Rajan, 2009)

(6) Delayed Memory Achievement Test.

The data thus collected were tabulated and analysed using statistical techniques like Arithmetic Mean, Standard Deviation, Test of Significance (t-test), Test of Variance - Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA), and Karl Pearson’s Product-Moment Coefficient of Correlation.

1.9 SCOPE AND LIMITATIONS OF THE STUDY

In response to the changes taking place in society today, there is an urgent need for qualitative improvement in education. Education should contribute to the solution of problems in our life by inculcating desirable attitudes, skills and abilities. Thinkers and researchers in the field of education have emphasised that sound strategies of instruction will improve the quality of education. Embedding strategies for instruction will go a long way in promoting Deep learning, which is the key process through which students extract knowledge and abilities from course material and experiences. The aim of this study was to advance the level of
student learning at par with Deep learning, rather than Surface learning, by Embedded Strategies of instruction.

The procedure adopted for the study is adequate for the problem under investigation. Though sincere effort was made to make the study as precise as possible, some limitations have crept into the study.

1. Due to the constraints of the large population of Higher Secondary School Students spread all over Kerala, the investigator was unable to give district-wise consideration while selecting the sample and sub samples for the study.

2. While the present study was aimed at the Higher Secondary School Students, the sample selected comprised of only students of Standard XI.

3. Only five Strategies could be Embedded within the experimental study.

1.10 ORGANISATION OF THE RESEARCH REPORT

The report of the study is organised in six chapters.

Chapter I presents a background of the problem, need and significance of the study, statement of the problem, operational definition of the key terms, variables used for the study, hypotheses formulated for the study,
objectives of the study, a brief note of the methodology adopted, and the scope and limitations of the study.


**Chapter III** summarises the survey of the literature related to the areas under study.

**Chapter IV** explains the methodology adopted for the study, design of the study, tools used for the study, sample selected, procedure adopted, statistical technique employed.

**Chapter V** analyses and interprets the data gathered under four major sections.

**Chapter VI** gives the study in retrospect, conclusions based on the findings, tenability of the hypotheses, educational implications of the study, and suggestions for further research.

An exhaustive **Bibliography** and the **Appendices** are included at the end of the Research Report.