CHAPTER IV
METHODOLOGY

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CHAPTER IV
METHODOLOGY

4.0 PREAMBLE

The methods adopted in this investigation directly follow from the objectives of the study, hypotheses of the study; the potentials embedded in the episodic text *Bhūmiyuṭe Avakāśika* the nature of the jurisprudential Inquiry and the possibilities arising from its special applications in the particular episode and context of investigation.

As stated in Chapter I, this study is guided by multiple objectives, and multiple hypotheses. This plurality, especially in hypotheses calls for multiple methodologies, ranging from historical through analytical to experimental. Many researchers would prefer to first state the qualitative methodology and then proceed to the more precise and quantitative methodologies. This investigator prefers the reverse order. Experimental study has a precise form and is easier to present first. It led to a quantitative survey on dimensions not covered by the experiment. Some of the qualitative issues branched off from the limitations of the quantitative methods. They have a way of opening out and it is found most expedient to state the qualitative methods last.

Another deviation from the very prevalent practice concerns the components within the method. Many researchers prefer to state the Methods used first followed by a second section devoted to Tools and Techniques, and finally the procedures of analysis and interpretation. Such a procedure would be inconvenient when varied methods are adopted in the same study. Hence it is proposed to divide the chapter IV in terms of the methods used. Under each method the details of the method, the tools/techniques, sample where relevant, the mode of analysis and interpretation will be stated.
4.1 EXPERIMENTAL METHOD

4.1.1 The experiment is designed to test the relevant hypotheses stated in Chapter I.

1. When an episode based on JIM on an appropriate theme is tried out with equated groups, there will be significant difference between the achievement in Malayalam of the students (whole sample) who have learnt through JIM and that of the students taught by the conventional teaching method.

2. There will be significant difference between the achievements in Malayalam of students who have learnt thorough JIM and those who have been taught through conventional methods with respect to sub-samples of (a) Urban and Rural area, (b) Government and Private schools and (c) Boys and Girls.

3. Besides the measured differences between the two groups tested through ANCOVA and 't'. The students might have acquired several benefits through the use of JIM using a highly stimulating episode, which can be revealed through qualitative participant interactions with the student teachers and experts.

4.1.2. Details of Method

The usual design adopted in models research is to compare the effectiveness of two models of teaching or compare a selected criterion model with traditional teaching. Usually a selected curricular theme is taken and a teaching episode is written following the full sequence of presenting it according to the steps of Joyce and Weil, making a formal statement of the other components too, such as the social system, nurturing effects etc. This study attempts to replicate the present trend but also go beyond it. This section reports the experimental design as adopted by the investigator following the common pattern adopted by investigators in pedagogical science.
In testing a model the usual procedure is to select an episode and prepare a lesson plan according to some plan and sequence. In this case the steps suggested by Joyce and Weil were followed.

The experimental design was preceded by a close analysis (a common method used in literary theory) of the passage selected to trigger the value conflict, viz., Bhūmiyute Avakāśikā. Several experimental constructs (dissonance constructs which could trigger the jurisprudential inquiry) were developed from this analysis. This analysis was done on a more rigorous line than in the case of earlier studies. The results from the analysis (which really form the trigger for the method) in the relevant steps, which follow:

4.1.3 Pre-Analysis of the Episode to the steps in the model as given by Joyce and Weil

Jurisprudential Inquiry Model offers method for developing student’s abilities to take up a stand on the social issues that they confront in daily life situations. So while teaching social sciences, language or even science – in this case a topic from language with the content representing environmental awareness/conservation and legal-social issues – the student has to think of those issues which are controversial can plan the teaching as per the following phases are taken care of.

4.1.3. a Phase One: Orientation to the case

In this phase the teacher introduces the case to the students. Reading a story, a historical narrative, a filmed incident, some feature in the lives of the students, or community can do it. The case may be an incident or a feature, which projects a dilemma of value conflicts. The case may arise from a newspaper clipping, hypothetical incident or real incident, etc. It must have three parts- the first narrating the
background, the second highlighting the dilemma, and the third putting before the students the requirement to resolve the dilemma. The highlights of the case are noted on the blackboard for further analysis.

In the present study the case is a complex lesson (a short story of Vaikom Muhammad Basheer) of embedding several values and value conflicts. Teacher introduces the case to the students by a narration of the summarized story and inducts them to further reading of the particular portion. Then the teacher reviews the portion by asking some relevant questions so as to get the preview of the portion.

4.1.3. b Phase Two: Identifying issues

This phase involves the following steps.

Teacher is assured that the students have followed the case. For this purpose questions pertaining to the case are asked. Students are asked to identify controversies in the case. They are instructed about the process of identifying public policy issues, i.e., the questions starting with ‘should’. This will help students to make explicit the different values in conflict. There can be more than one ‘should’ question, in a case. The teacher may help the students to identify as many cases in a public policy issue. The objective of all these is to place many ideas before the group and to encourage analytical thinking about the case.

When the teacher feels that many public policy issues have been mentioned, the teacher selects one public policy issue. The choice can be made by the help of the group or even by the teacher.

A. The issues stated in the form of values/ urges/ rights gleaned from the discourse

1. The right of man to enjoy the fruits of the earth within set limits
2. The right of man to live free from unwarranted encroachment by other beings
3. The value of non-violence at any cost.
4. The value of individual ownership and property rights:
5. The right of primordial beings to exist in the earth. Within the Geosphere, these organisms were the first to have created a biosphere.
6. The urge of the altruistic man to help other beings.
7. The duty of a wife and mother to protect and nurture the family.
8. The duty of the head of the family to provide the material and financial support to the family.

(The selected public policy is written on the black board and the students are asked to identify values involved in the issue with respect to the case. The teacher may allow the students to identify as many values as they feel).

Conflicts between values/rights urges
1. The right of man to develop his land and enjoy the fruits can conflict with the action of other lower organisms which may not have a legal right but which may have 'evolutionary' occupancy rights
2. The value of survival versus the value of non-killing even under provocation.
3. Primordial and biological values Vs political and economic values of man.
4. Anthropocentric values Vs universal values.
5. Matriarchal values Vs Patriarchal values
6. The rights of the 'haves' often conflict with the needs of the 'have-nots'
The teacher asks the students to find out those pairs of values, which are in conflict. In this way many pairs of conflicting values can be formed.

**Conflicts between values/rights urges**

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3. Primordial and biological values Vs political and economic values of man.
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6. The rights of the ‘haves’ often conflict with the needs of the ‘have-nots’

If such conflict is between human beings or between social segments the government can control it to some extent. If the conflict is between civic man and primordial inhabitants the problem is more complicated.

The teacher again takes up the public policy issue so selected and finds out the words or facts or values that needed to be clarified. All these are defined in such a way that the groups arrive at a common definition. The objective of these steps is to help students develop a strong stand on the public policy issue.

**4.1.3. c Phase Three: Taking positions**

In the classroom situations of the present study students are aware of the values and value conflicts (e.g., the value of survival versus the values of non-killing and non-violence) and were able to take a stand. They themselves argued that nobody has got the right to kill other animals and the entire human and non human beings have equal right to live on earth.
same time some other students were of the opposite argument. In their opinion, the other beings should be killed if they are harmful or threaten to human life and property. Students found out the consequences of their positions and they were able to write down the decisions. Their arguments on the particular value are explained in the lesson transcript given in appendix II.

4.1.3. d Phase four: Exploring the stand

The teacher asked the students to summarize the activities followed so far by the group and stated some factual positions of killing other animals and human being without any ill feeling or sympathy. By following the teacher’s suggestion the students tried to qualify their positions. They clarified their positions on the issues by stating a number of analogies such as Gujarat & Maradu issues and analyzed the consequences of violence and set priorities to the value of non-violence.

The teacher asks the volunteer students to defend the position. Defending the position takes the form of a Socratic dialogue in which the teacher probes the stand taken by the student.

The teacher follows four patterns of argumentation, and
(a) Tries to establish a point where value is violated
(b) Describes desirable and undesirable consequences of the stand
(c) Tries to determine the range over which a position would be held
(d) Gives an analogy to show that if a particular value is held other values will be violated.

4.1.3 e Phase five: Refining and Qualifying the Position

After exploring the position, the teacher, in this phase, provides the students with an opportunity to challenge their position. The students changed their
positions by providing a number of similar situations or by changing the wording of the position or will add a list of few conditions with words like 'provided', 'if' 'therefore', etc. In the present study the students qualify their positions by receiving Basheer's stand.

Then the teacher writes the final version of the group's position with the list of conditions on the blackboard.

4.1.3. f Phase Six: Testing the Position

This phase is concerned with the quick check of the assumptions, consequences and the relevance of the final position. The teacher asks any one of the students to list the assumption on which the final position is based. Later he may ask another student if the assumptions given by his peer are reasonable.

Finally, the teacher discusses the relevance of the issue to the lives of the students, parents, society, citizens in general, etc. that no body can follow extreme non-violence but can keep a balancing state of symbiosis. Thus the students took a position to take maximum effort to love all beings of this universe and to share the right of earth with other beings also.

The nature of the problem, the kind of data necessary for its solution and the objectives of the study determine the method to be adopted in this study. The purpose of the study is to find out the effectiveness of JIM in teaching of Malayalam at secondary level. To attain the objectives of the study the researcher has adopted experimental method, using non-equivalent pre test post test control group design. The teaching method is the independent variable and the student's achievement is the dependent variable.
4.1.4 Experimental Design

What is given above is the teacher’s pre-analysis of the criterion text and the discourse involved in it. In actual transaction in the class, there are likely to be some deviations since student’s individuality and creativity are involved. But since the analysis given above is based on a careful study of the text, even if the pupils deviate widely, the teacher felt confident to call their attention to the missed aspect – without dictating to them. The students are finally expected to land somewhere close to the type of thinking about a controversial topic and landing at some resolution. The actually transacted exchanges and thinking around a debatable issue - transacting it according to JIM and getting a resolution - is the experimental variable.

The effectiveness of transacting it according to JIM has to be measured. In order to test it, pre test-post test parallel (non-equivalent) group design with one group following JIM interactions and the control group taught by conventional methods was adopted.

The investigator herself taught both the experimental and the control groups. In the experimental group she followed the phases and steps suggested by Joyce and Weil. In each step the transaction of the criterion text and the types of dialogue and other student behaviour that might follow were anticipated and planned. In actual transaction of the model, there were some deviations, but keeping within the frame.

4.1.5 The tools used for the experimental part of the study included:

1. Lesson transcripts on conventional text book approach.
2. Lesson transcripts on Jurisprudential Inquiry Model
3. Pre test
4. Post test
4.1.6 Sample

Krech and Crutchfield (1975) suggest, "A sample size of 500 would yield good results which would keep the error at less than five percent level". Accordingly, the size of the sample is tentatively fixed as 573. The size is considerably larger than what was suggested by social researchers. It was decided that the sample size should be manageable and in such a way as to suit the convenience of the investigator. Then the total number of students in each school was divided into two groups as control group and experimental group. A total sample of 537 students participated in the experiment. Due to the absence of the students either in pre & post tests or in the classroom learning, 504 (252 in the experimental group and 252 in the control) were selected as the final sample for analysis. The sample was also stratified appropriately according to locality (Urban-Rural), management (Government-Private) and sex.

The experiment was conducted in three schools in Idukki district and two schools in Trissur District:

1. S.N.D.P. V.H.S.S, Adimali;
2. Govt. V.H.S.S. Deviyar colony;
3. S.N. High School, Irinjalakkuda;
5. Govt. Higher Secondary, School Vellathooval.
The details of the sample are shown in Table 4.1

**Table-No. 4.1**

**Details of the School-wise Break-up of the Final Sample**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name</th>
<th>Sex</th>
<th>Locality</th>
<th>Manage ment</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Rural</td>
</tr>
<tr>
<td>1</td>
<td>S.N.D.P. V.H.S.S. Adimali</td>
<td>48</td>
<td>50</td>
<td>98</td>
</tr>
<tr>
<td>2</td>
<td>Govt. V.H.S.S. Deviyar colony</td>
<td>58</td>
<td>56</td>
<td>114</td>
</tr>
<tr>
<td>3</td>
<td>S.N.High School Irinjalakkuda</td>
<td>32</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Govt. H.S.S. Irinjalakkuda</td>
<td>50</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Govt. H. S.S. Vellathooval</td>
<td>58</td>
<td>54</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>246</td>
<td>258</td>
<td>324</td>
</tr>
</tbody>
</table>

**4.1.7 Tests and Evaluation**

After selecting the schools for experimental study the investigator made necessary arrangements with the heads of the schools for conducting experiments. With the help of the concerned teachers of the schools selected for the experiment, a pre test was conducted for both the experimental and control groups. The test items were prepared by the investigator considering the whole literary works of Basheer and indirectly focused on some literary analytical, social and legal aspects of *Bhūmiyute Avakāśikaj* as a pre requisite testing.

The investigator prepared an achievement test in Malayalam for the Xth standard students based on the topic *Bhūmiyute Avakāśikaj* selected for the teaching of JIM and CTM.
17 items are included in the test. 6 multiple-choice questions are included in part I (1/2 mark allotted for each), in part II there are 4 very short answer questions and the students have to answer in a word or in a sentence (1 mark allotted for each question). In part III, there are 5 short answer type questions having 2 marks each and those items should be answered in four sentences each. Part IV consisted of 2 essay type questions, which carry 4 marks each, and the students have to answer in one and a half pages. Separate answer sheets were provided to all students. A sample for the final test is given in appendix (2). The achievement test was prepared on the basis of the blueprint. Before drafting the final form of the question paper the investigator consulted the experienced teachers of the Xth standard. The answer sheets were evaluated very strictly by the investigator using the scoring key.

Analysis of variance and analysis of covariance were used to study whether there is any significant difference among the treatment groups (JIM and CTM) with regard to achievement in Malayalam.

Comparison of experimental and control groups based on sex, locality and management were calculated considering the scores of the achievement test in Malayalam. The details of the analysis in several tables along with interpretations are given chapter V

4.2. SURVEY
In addition to the experiment, a survey was also conducted with a predesigned tool, which is explained below. Besides, a number of informal surveys using participant and semi-participant observation, informal interviews, expressionnaire and other qualitative approaches were used in order to assess a number of collateral benefits and limitations that might accrue as a result of applying JIM were adopted in this study.
Even while applying the experiment, the test could measure only the cognitive outcomes. In order to assess the benefits on other dimensions that could have accrued, pupils were given opportunities for reflection, reporting and free expression – oral or written. Effectiveness involves not merely the benefits that accrue in applying JIM, but also in judging the method itself from various points of view.

4.2.1 A formal survey using Value Conflict Resolution schedule

But there were certain objectives and hypotheses, which could best be realised/tested by means other than the experiment. Of these most are tested by less structured tools and techniques such as observation and interview and qualitative-participative approaches. However it was felt that the relevance of JIM in general and its application an episode such as *Bhūmiyuṭe Avakāśikaḷ* could best be studied through a written tool addressed to experts, teachers and teacher educators. Since JIM is concerned with values, value conflicts and their resolution, the tool was designated as Value-Conflict Resolution Schedule (containing mostly judgement items and some attitude items.)

4.2.2 Construction, Administration and Scoring of Schedule

This schedule having two parts was prepared by the investigator to collect the judgements of teachers, teacher educators and experts regarding the relevance of the JIM in a context of the *Bhūmiyuṭe Avakāśikaḷ* (Rightful Heirs of the Earth) issue - which covered the objectives of education/language education, the role of discussion, introducing controversial issues and conflict resolution in the curriculum – the role of language studies with reference to environmental issues, in clarifying issues, examining differences of opinions on values and different points of view etc. In the first part of the schedule besides the above-mentioned aspects, some
judgement questions were also included based on a close analysis of the particular lesson *Bhūmiyuṭe Avakāśikaṭ* by Vaikom Muhammad Basheer. The issues to be judged were extracted from the lesson included property rights, civic rights, rights extending beyond the human domain – even to the primordial inhabitants, non-violence and environmentalism extended to extreme lengths, conflict versus symbiosis, issues seen from the male-female (public-domestic) perspectives. Altogether forty such items were put in the schedule. The second part of the schedule is a questionnaire in which fifteen questions seeking yes/no answers and some questions for free answers are included. The value conflict resolution schedule was administered to a sample of 15 experts, 40 teachers and 50 teacher Trainees. The sample used for the judgement was purposive.

It must be added that the investigator built the tool with a dim possibility of constituting it into an attitude scale, since discussion of controversial issues would trigger attitudinal responses. In practice the group was invited to read each item and indicate their reaction by placing a tick mark against one of five columns: strongly Agree, Agree, Undecided, Disagree and Strongly Disagree.

The responses were scored as done in a Likert Type Attitude Scale of Summated Ratings. But in the light of divergence even among experts, and also because of the heterogeneity of content most items failed in the discrimination test (i.e., the mean of the upper quartile may not be significantly higher than mean of the lower quartile in the item analysis). In the preliminary analysis, this is what happened. There was also the problem of multiple criteria for favourableness, which was necessary to constitute a summated ratings attitude scale. Hence a Judgement Schedule rather than an attitude scale was an appropriate name for the tool that emerged. It was called Value Conflict Resolution Schedule. Each item had a specific purpose and hence the judgements on each items were valuable. The forty items were grouped into twelve areas according to the nature of concepts covered.
In some cases it was also found possible to group the items into triads and make even some dialectical inferences. The second part of the schedule include 15 yes/no questions. At the end enough space is allotted for free response and suggestions. Details can be seen in Chapter V. The schedule is given in the appendix (4 & 5).

4.2.3 Analysis of the responses to the schedule were on the following lines: Each of the 40 items judged on a five point scale were scored with scores of 5,4,3,2,1, for responses of SA, A, U, D and SD respectively. This was the basic criterion on which the responses were interpreted – degree of agreement with a statement -- irrespective of whether the item is favourable or unfavourable with reference to any preferred pedagogic attitude. The straight score thus got was called Item Agreement Mean Score with the acronym IAMS. The scores obtained this way were interpreted in terms of individual items and for groups as indicated above.

Many of the items where a worthy pedagogic attitudinal direction could be identified, were also scored as one would score an attitude scale item giving weightages in the direct as well as reverse manner, i.e., 5,4,3,2,1, for responses of SA, A, U, D and SD respectively in the case of favourable items, and 1,2,3,4,5 for responses of SA, A, U, D and SD respectively in the case of unfavourable items. Scores obtained in this way are called Favourableness Indicator Mean Score (FIMS). This score is relevant only in a few cases.

The second part of the schedule was analysed using calculation of Chi square ($\chi^2$) to ascertain the level of significance.

4.3. HISTORICAL METHOD

The enrichment of JIM insights by reference to early advanced cultural history is approached through the historical method.
4.3.1 The hypotheses for which the historical method will be most relevant are:

1. Literary education can be traced to the rhetorical schools in early cultures such as those of early Greece and Rome.
2. Literary education, particularly in Rome, was oriented to jurisprudential practice.
3. Similar models can be traced from Sanskrit literature – especially those dealing with parishads and other assembly transactions.
4. The more democratic models in scholastic, rhetorical and juridical practice can be traced in early Tamil, and in certain Malayalam forms addressed with a folk orientation; democratic forms can be drawn from Sanskrit sources too if read hermeneutically.

4.3.2 The components of historical method such as sources (primary and secondary), criticism (internal and external) and historiography (according to several schools) are well known and need not be repeated here. But it will be noted that most of the components will not be relevant in the present context. For instance, primary sources in the sense of physical relics and remains will not be the concern in the present study. But there can be other JIM studies where external criticism testing the authenticity of the primary sources could be relevant. There have been cases where value conflict and issue debate has been triggered on the basis of fake documents. Several competent researchers have used literature and oral lore as primary source. The secondary sources could be highly informative and illuminating especially when conflicting sources are chosen. Internal criticism will be very relevant in the present study. Plenty of such literature was available in departments of language and literature.

4.3.3 Polyphonic historiographic presentation
In presenting the historical results in this study several schools are available, but only some may be relevant. The progressive schools of historiography
will be preferred, but use of multiple schools, where relevant, may be more appropriate from the JIM point of view, which supports multiple voices speaking. Even a historiographic school which may not be relevant or antithetical to the preferred or proper stand may play a useful role in triggering the type of dialogue taking different or even conflicting positions.

One of the best examples is seen in Will Durant’s *Mansions of Philosophy*, later published as *The Pleasures of Philosophy* (1929,1953). The notable thing is that Durant normally uses the narrative style in much of the book, but when the issue becomes very complex, he allows different experts to have a dialogue, presenting multiple points of view, leaving the readers to draw their own inference. He is at his best when he comes to the Philosophy of History. There he lets eighteen persons take part in the debate. The list includes Buckle, Montesquieu and Ratzel (geographic theory), Hegel (the Spirit of the Age), Marx (economic theory) Gobineau and Grant (racial theory) Nietzsche (Superman theory), Voltaire (enlightenment and universality), Bossuet (theological history), Carlyle (Great Man theory), Tarde (imitation theory), Lester Ward (invention and the growth of knowledge), and finally composite history (Durant himself).

Study of such materials is not a case of historical method getting applied in investigating history. On the other hand it is a model of how great minds view the same facts from totally different and even conflicting perspectives, the synthesis of which will bring us nearer to truth. This is a good preparation for JIM issue analysis and debate. We are indebted to the Sūtradāri (stage setter) Will Durant for bringing together the intellectual giants belonging to different ages and countries for a dramatic debate.
4.4 EXTENSIONS TO JUDICIAL-LITERARY RHETORIC AND DISCOURSE ANALYSIS

In addition to the experiment and the formal survey sing Value Conflict Resolution Schedule it was intended to use literary, rhetorical and discourse analysis within the judiciary framework.

4.4.1 Relevance of the methods in relation to hypotheses

These methods were designed to test the following hypothesis:

1. Modern discourse analysis could present many interesting insights, which can enrich and expand our understanding of JIM and its application in school education.

2. The akam literature as defined in Tolkäppiyam and exemplified in Sangam literature might present cases where domestic discourse (private domain) brings parallels to value confrontations and resolutions from the public domain.

3. Such approaches can be found in the dramatic literature in Sanskrit and in Malayalam literature (particularly folk genres).

4. Analysis of such materials can help to universalise and democratise high level of thinking and reasoning implied in JIM.

4.4.2. Analytical procedures relevant for testing such hypotheses

Some of these hypotheses take us into the realms of rhetoric and discourse analysis. In this intellectual journey several approaches from literary theory and criticism would be useful. These procedures have relevance in this study because they could deepen the analysis of the text and discourse to enable the teacher or researcher to perceive subtle nuances in taking positions and debating them.

Discourse analysis itself is becoming a field by itself now. The investigator managed to collect several insightful works and download some useful material from Internet in this field. Prof Scarias Zacharia of the Sanskrit University, Kalady, enabled the investigator to have access to some rare
works in the University. Dr Ms Indra Manuel (Tiruchirapalli) who has specialised in Theory of literature made her discourse analysis compilations available. Some of the highest authorities in French, such as Michel Foucault, Bordeau, and Derrida and several from English were thus collected.

Besides discourse analysis other forms of literary and linguistic analysis such as close analysis and deconstruction and several approaches in discourse analysis are now getting popular. Later in this chapter qualitative methodology is spelt out in brief, which systematically uses these literature-related approaches besides several others.

The important thing is that the concepts gleaned out from discourse analysis and other literary methodologies were used to reanalyse Bhūmiyute Avakāśikal in new perspectives. Two ways of making such applications were attempted. One was to take the theoretical principles and find applications in the criterion text. The other was to take exemplars of application of discourse analysis principles from English literary criticism, and attempt such approaches in Malayalam with the criterion text. These are presented in the second part of Chapter VI.

4.5 QUALITATIVE METHODS

It was made clear earlier that the survey with the aid of the Value Conflict Resolution Schedule was able to map out some components of the effectiveness of JIM not covered by the experimental part. Many informal interviews and participant observations were also conducted to enhance the scope of the research. Even the experiment in JIM is not of the type of experiment conducted in a chemistry experiment. In the chemistry laboratory the experimenter makes the chemical substances to react with each other in fixed modes. But ordinarily the substances do not jump out and interact with the investigator.
4.5.1 Importance of qualitative research in models, particularly in JIM

But in the JIM experiment there is plenty of free interaction among the students and between the teacher and students. The stamps suggested by Joyce and Weil are intended to avoid total confusion and to facilitate optimal usage of group time and effort. Mechanical and rigid following of the steps and predetermining and delivering the dialogue scripts could kill the spirit of the Jurisprudential Inquiry. Within the framework of the Joyce and Weil steps, the investigator attempted to help the pupils themselves to analyse the issues, take a stand, identify value conflict etc. In this process the pupils occasionally deviate too much from the route and need to be gently brought back. In this analysis lots of inquiry nuances can be observed by a discerning research observer. An investigator who simply sticks on to fixed scripts and gets them 'recitec' in a fixed order by a small number of students good in delivering scripts may reaching the target with least disorder. But a higher order research methodologist like Joseph Schwab would call this approach 'stable research.' The 'I' (Inquiry) in JIM will tend to get pushed out in such approaches.

An investigator who would maintain the steps as a broad framework, and encourage some flexibility to ensure that the students themselves identify issues, note the conflict, take their own stand (within the framework), explore the strands etc., (if necessary tolerating some deviation when pupil themselves operate on their own – albeit with some guidance) the transaction would rise to the level of what Schwab calls 'Fluid Inquiry.' The researcher-teacher will have to decide on the spot about the critical limit at which deviating students would be gently brought back. These nuances cannot be revealed by ANOVA and ANCOVA calculations, or even by a
survey with a printed tool. Qualitative methods intelligently and empathetically applied could tap out at least some of the nuances.

4.5.2 Fraenkel and Wallen (1993) define qualitative research as those studies that investigate the quality of relationships, activities, situations or materials.

Holloway (1997) defines qualitative research as

a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live. A number of different approaches exist within the wider framework of this type of research, but most of these have the same aim: to understand the social reality of individuals, groups and cultures. Researchers use qualitative approaches to explore the behaviour, perspectives and experiences of the people they study. The basis of qualitative research lies in the interpretative approach to social reality.

4.5.3 The dimensions that distinguish qualitative methodologies from quantitative methodologies are:

1. preference for hypotheses that emerge as study develops;
2. preference for definitions in context or as study progresses;
3. preference for narrative description;
4. preference for assuming that reliability of inferences is adequate;
5. assessment of validity through cross-checking the sources of information;
6. preference for expert informant (purposive) samples;
7. preference for narrative/literary descriptions of procedures for narrative/
8. literary descriptions of procedures;
9. preference for logical analysis in controlling or accounting for extraneous variables;
10. primary reliance on researcher to deal with procedural bias;
11. preference for narrative summary of results;
12. preference for holistic description of complex phenomena; and
13. unwillingness to tamper with the naturally occurring phenomena.
4.5.4 (Patton, 1990) states the major characteristics of qualitative research:

- **Naturalistic inquiry** - studying real world situations as they unfold naturally, non-manipulatively, unobtrusively, without predetermined constraints on outcomes; openness to whatever emerges;
- **Inductive analysis** - Immersion in the details and specifics of the data to discover important dimensions, by exploring open questions;
- **Holistic perspective** - focus on complex interdependencies not meaningfully reduced to a few discrete variables;
- **Qualitative data** - detailed, thick description; inquiry in-depth;
- **Personal contact and insight**;
- **Dynamic systems** - attention to process;
- **Unique case orientation** - assuming that each case is special and unique; respecting and capturing the details of the individual cases;
- **Context sensitivity** - placing findings in a social, historical and temporal context.
- **Empathic neutrality** - understanding the world in all its complexity, including personal experience and empathic insight as part of the relevant data.
- **Design flexibility** - open to adapting inquiry as understanding deepens and/or situations change, avoiding getting locked into rigid designs, pursuing new paths of discovery as they emerge.

4.5.5 **Steps in qualitative research** are also listed (Fraenkel and Wallon) though they are not as distinct as they are in quantitative studies.

1. **Identification of the phenomenon to be studied**: Qualitative studies begin with research questions, which suggest foreshadowed problems. Foreshadowed problems are often reformulated several times during the course of the study.

2. **Identification of the participants in the study**: In almost all qualitative research, the sample is a purposive one, since the researcher wants to ensure that he obtains a sample that possesses certain characteristics relevant to the study. Random sampling is not ordinarily feasible.
3. **Generation of hypotheses:** Hypotheses usually emerge from the data as the study progresses. Some are almost immediately discarded; others are modified or replaced. New ones are formulated.

4. **Data Collection:** The participants in a qualitative study are not divided into groups, as in experimental research, with one group being exposed to a treatment of some sort and the effects of this treatment then measured in some way. The collection of data in a qualitative research study is ongoing. The researcher is continually observing people, events and occurrences, often supplementing his observations with in-depth interviews of selected participants and the examination of various documents and records relevant to the phenomenon of interest.

5. **Data Analysis:** Analysing the data in a qualitative study essentially involves synthesizing the information the researcher obtains from various sources into a coherent description of what he has observed or otherwise discovered. Data analysis in qualitative research relies heavily on description; even when certain statistics are calculated, they tend to be used in a descriptive rather than an inferential sense.

6. **Drawing Conclusions:** In qualitative research, conclusions are drawn continuously throughout the course of a study. The conclusions are more or less integrated with other steps in the research process.

### 4.5.6 Validity and reliability: Statistical coefficients underplayed

In all research, validity is important for establishing the truth and authenticity of a piece of research, together with reliability. Qualitative researchers do not insist on statistically measured varieties such as *predictive validity*, *construct validity*, *concurrent validity*. They give high priority to *internal validity*. Researchers demonstrate that they present the reality of participants through a coherent storyline and excerpts from interviews, detailed description of the decision trail and field notes. External validity is enhanced when researchers choose a situation, which lends itself to thick description, on the basis of which the reader can form, his judgement.

Rather than using terms such as validity and reliability, qualitative researchers use the notions of *trustworthiness* and *authenticity*. The elements of trustworthiness are:

1. **Credibility,** enhanced by: triangulation, member check and peer
debriefing.

2. Transferability

3. Dependability, demonstrated through audit trail.


The components of authenticity are:

1. Fairness
2. Ontological authenticity (helping participants to gain an understanding of their human condition through the research)
3. Educative authenticity (the understanding that individuals gain should enhance the way in which they understand other people.)
4. Catalytic authenticity (decisions made by the participants should be enhanced by the method of inquiry.)
5. Tactical authenticity (the research should empower the participants. The action of the participants should have an impact on their lives.) (Holloway)

4.5.7 Certain dimension which have been associated with literary and linguistic research, that has been reviewed from that perspective have been perfectly assimilated in qualitative research.

4.5.7a Conversational Analysis is a method developed in 1960s and 1970s in the United States by Garfinkel, Turner and others in the context of ethnomethodology. It is a form of systematic analysis, which examines the use of ordinary language and asks how everyday conversation and interaction work. It focuses on naturally occurring talk and on the organization and ordering of speech exchanges. They also analyse non-verbal behaviour. They uncover the structures behind 'talk-in-interaction' (Psathas, 1995)

4.5.7b Discourse Analysis is an analysis of text and language which draws on 'accounts' for action which participants present. 'Accounts' refer to forms of
ordinary talk and reasoning of people, as well as other sources of text, such as historical documents, diaries, and reports. Discourse analysis is a specific approach to the social world and research rather than a method (Potter, 1996).

4.5.7 **Hermeneutics** is an important aspect of interpretative methodology. The term is derived from Hermes, the Greek messenger of the gods. Dilthey, Heidegger, Gadamer and Habermas developed the concept. Researchers using hermeneutic phenomenology gather data from language, texts and action. They return to the text frequently and ask the participants what the data mean to them.

4.5.8 **Some** methodologies which are used in conventional research processes get a special distinction when handled by qualitative researchers. Two typical techniques are interview and observation.

4.5.8 **A interview** methodology has been developed very intricately in qualitative research. *In-depth interview* is a favoured strategy for data collection. It produces 'rich data. *Informal interviews* are conversations where an observer might ask about the observed activities. *Formal interviews* are usually set up in advance and tape-recorded. The *unstructured interview* begins with a broad, open-ended question within the topic area. The researcher uses an *aide memoire* covering the key points. *Prompts* or short questions can be used to develop ideas. The *semi-structured interview* has a more specific research agenda and is more focused. The questions are contained in the *interview guide*. Researchers have to be aware of *interview bias* and guard against it.
4.5.8 **Observation** is another area developed in depth by qualitative methodologists. Participant observation is a methodology, which had its origins in anthropology. It comes very handy in qualitative researches in many disciplines. *Immersion* in a setting is the first step in observation. It permits *prolonged engagement*, which generates more in-depth knowledge of a culture or a sub-culture. The settings for participant observation can vary in a continuum from *open settings* (public, visible settings like the street), to *closed settings* (management meetings or clinics). Gold (1958) identified four types of observer involvement in the field.

- **The complete participant**, who is part of the setting, and takes an insider role which often involves covert observation.
- **The participant as observer**, who has negotiated his way into the setting as part of the working group under study.
- **The observer as participant**, only marginally involved in the situation.
- **The complete observer** who does not take part in the setting and uses a 'fly on the wall' approach.