The fundamental epistemological assumption of this study is that knowledge is socially constructed (Mannheim [1936] 1968; Berger and Luckmann 1966; Therborn 1980) and, therefore, does not exist as neutral, value-free truth or absolute. The previous chapter, therefore, has touched upon the location of the activity of research in the socio-political and academic-intellectual context of the researcher and in the history and problematic of the specific field of enquiry itself.

A corollary of this is the recognition that the production, maintenance, dissemination and transformation of knowledges and knowledge-systems are processes of institutionalization and enmeshed in structures of power and politics. Knowledge, therefore, is to be understood as conferring power, but also as directed by and resulting from nodal points of power (Foucault 1980). Awareness of these assumptions along with conscious choice enables the researcher to take a particular socio-political stand in relation to existing knowledges as well as the kinds of knowledge she/he is engaged in producing. The position outlined above implies a critical perspective and acknowledges the location of this study in a specific epistemological 'paradigm', rooted in critical theory (Popkewitz 1984; Grundy 1987).

3.1 The critical imperative in educational research

Social, and particularly educational, research has usually drawn upon the two major paradigms of positivism and the inter-
pretive "turn" (Burrell and Morgan 1979; Popkewitz 1984; Cohen and Manion 1994; Keeves 1988). Recent trends (Carr and Kemmis 1986; Grundy 1987; Popkewitz 1990; Morrow 1994) speak more in terms of three paradigms. "Critical theory" is seen as deriving from and having affinities with the interpretive approach, but as moving away from it in the direction of emancipatory action and social transformation.¹ Egon Guba's *The paradigm dialog* (1990) is premised on the assumptions that the belief system underlying positivism has already been undermined, and that there are three paradigms emerging as alternatives to the positivist paradigm -- post-positivism,² critical theory, and what is referred to as constructivism (the "naturalist" or interpretive paradigm).³

Morrow (1994) analyzes critical theory as going beyond the interpretive or "naturalistic" paradigm, combining it with certain elements of post-positivism, in the direction of an

1. Discussing the sociological ancestry of critical theory, Morrow (1994) identifies two perspectives on society, which were touched upon in chapter two: (a) the structural-functionalism of Durkheim and Parsons which concentrates on producing citizens for the maintenance of social order and organization as they exist; (b) the conflict perspective, which identifies the nature of society as a network of power relationships rooted either in the economic structure (Marx and Marxism) or in the bureaucratic or socio-cultural institutions (Weber). While the structural-functionalist perspective occludes the simple fact that there are social inequalities, the conflict perspective highlights this fact and explores means for social transformation. Weber/neo-Weberianism highlights the power-ridden nature of society but does not concern itself with possibilities of transformation.

2. Post-positivism as a point leading into critical theory has also been discussed by Morrow (1994) along with the critical sociologies of Marx and Weber and some variants of postmodernism like Foucault.

3. It is not necessary here to go into the well-known debates over the ontological, epistemological and methodological assumptions underlying the "rationalist" or positivist and the "naturalist" or interpretive paradigms, and the postural differences between them. For a comparison of the positivist and the interpretive paradigms see, for instance, Morrow (1994), Guba and Lincoln (1988) and Guba (1990). The ontological assumptions made by the positivist paradigm (Phillips 1990; Sayer 1992) may be characterized as "critical realism" -- an acknowledgement that though "reality" is driven by natural laws, it can only be partially comprehended. Following from this stance, there is a recognition that "objectivity" is desirable, but can only be an approximation from multiple sources of data ("critical multiplism"), rather than the assumption of a neutral stance in the researcher.
analysis of power-knowledge links and, therefore, transformative social action. The theory also offers a more nuanced framework for the understanding and analysis of, and the exploration of solutions to, specific micro-level problems (negotiated with macro-level perspectives and contexts) than the deterministic classical Marxist and social reproduction theories (Apple 1979; Bourdieu and Passeron 1990). These latter make a crucial contribution in highlighting the essential inequity and injustice of socio-economic and educational systems and the role of institutional mechanisms in reproducing and maintaining these inequities -- a fundamental perspective which is also shared by critical theory. They are, however, less helpful in highlighting gaps/possibilities or providing tools which may help initiate positive action (see Robinson 1994, who tends to use critical theory/research as an umbrella term to cover what has been called critical theory above, as well as what has been called social reproduction theory).

The word critical in critical theory connotes two sets of meanings: a criticalness within the scientific task, which implies logical consistency, clarity and rigour. It is the second meaning.

4. Apart from Morrow (1994), a sustained discussion of the "three paradigm" format is to be found in Carr and Kemmis (1986) and Grundy (1987), who derive their analyses, as does Morrow, from the three knowledge-constitutive interests of Habermas (1971). Grundy elaborates the "technical", "practical" and "emancipatory" interests and analyzes each one in terms of its guiding eidos, disposition, action and outcome. The "technical interest" is guided by the eidos of the ultimate product made (action) through a skill or techne-oriented disposition. In contrast, the "practical" interest is guided by the eidos of the good and is oriented towards a disposition of practical judgement and meaning-making through practical action motivated towards interaction. The action is not taken by a subject upon an object but by a subject with another subject(s). Finally, the "emancipatory" interest is constituted by the eidos of liberation through a disposition of critique motivated by dialogue and, therefore, the notion of a critical community. Habermas's analysis has also had its critics, for instance, Lakomski (1988: 55).
meaning, however, which distinguishes critical theory from the other approaches. This connotes an explicit recognition that thought and language are tied to specific social and historical conditions and that these conditions have to do with "social regulation, unequal distribution and power" (Popkewitz 1990: 48). Educational research in this tradition therefore, is concerned "to explore the conflict and tensions of schooling as a socially constructed institution" (ibid.: 48). It is on this count that critical theory may be said to be politically and ethically concerned. This concern also makes it implicitly reflexive and aware of its own rootedness in a specific historical and social context, and therefore, reflexively aware of its own limitations.5

This study consciously aligns itself methodologically, in terms of fundamental assumptions, and in its search for a meaningful curriculum content with the Habermasian critical emancipatory interest, which Grundy (1987: 115-16) also relates to Freirean pedagogy (Freire 1972, 1973). She emphasizes the following characteristics of the critical emancipatory approach as praxis:

(1) the constitutive elements of praxis are action and reflection. This implies that if the construction of a curriculum is to promote praxis, it should develop through the dynamic interaction...

5. In this context, it must be noted that the normative component of critical theory may negate the possibility of "accommodation" among paradigms at a theoretical level. However, Popkewitz (1990) points out that accommodation does often take place in practice, "through the specific hiring practices in universities" (ibid.: 65), or at the level of specific technical tools and procedures. Also, Walker and Evers (1988: 28-36) and Firestone (1990) claim either that the paradigms are commensurable, or that the very idea of a paradigm is a mistaken one, and that educational research has a fundamental epistemological unity which derives from the nature of the problems addressed.
of action and reflection. It is constituted through "an active process in which planning, acting and evaluating are all reciprocally related and integrated".

(2) Praxis takes place in the real and not hypothetical world. Therefore, curriculum construction cannot be separate from the act of implementation; it must be constructed within real learning situations and with students.

(3) Praxis operates in the world of social and cultural interaction. Therefore, curriculum cannot be simply about learning things; it must recognize learning as a social act and see teaching and learning as a dialogical relationship.

(4) "The world of praxis is the constructed, not the natural world". This means recognizing that knowledge is socially constructed.

(5) "Praxis assumes a process of meaning-making which recognizes meaning as a social construction". This implies that the curriculum process is itself a political one and that making meaning also involves conflicting meanings. 6

If we now turn to the present study, to see how it meshes with what has been said above, the selection of the research problem was motivated by a sense of "social" and "institutional" failure in the system of higher education, and the need to search for possible alternatives. As the introduction outlines, this process of focussing on alternatives led to the identification of rural institutions of higher education which specifically

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6. See also chapter five below for a similar methodological stance recommended for feminist social research by Mies and Shiva (1993).
cater to people from the socio-economically and geographically deprived segments of society. Simultaneously, this process also addresses the sense of crisis being experienced within these marginal institutions by exploring curricular alternatives drawn from local rural knowledge and technology systems. The study, therefore, has a dual critical impetus since it highlights two levels of dialogue between mainstreams and margins in which the former draw upon or learn from the latter.

3.2 Combining "extensive" and "intensive" designs

Turning now to specific designs, we find that writing on social science research has tended to equate what are called quantitative methods with the positivist approach and qualitative methods with the interpretive approach. Morrow (1994) suggests, in place of the terms "quantitative" and "qualitative" approaches, an "extensive" design format and "intensive" design format. The intensive format includes historical and comparative sociology, ethnography, participatory action research, narrative analysis, case study methods, "bubble dialogue" for exploring classroom discourse (Cohen and Manion 1994: 215-18) etc. The "intensive design" approach is an "inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting" (Cresswell 1994: 1-2). Tesch (1990) provides a taxonomy of the various designs used in such research by clustering them along four dimensions applicable to the research interest: the characteristics of language (content analysis, symbolic interactionism etc.); the
comprehension of meaning of text or action (e.g. phenomenology); reflection (e.g. heuristic research) and the discovery of regularities and patterns (grounded theory, action and collaborative research etc.).

Some of the methodological features common to such designs are as follows (Miles and Huberman 1994: 6-7; Lincoln and Guba 1985; Bhola 1990): the setting is a natural one; the researcher is the main instrument of data collection, with the focus on gaining a holistic overview of the context under study; the data, deriving from a focus on the participants' experiences and perceptions, are mainly descriptive; certain themes may be identified by the researcher for review with informants; some of the interpretations of the data, among many possible ones, are more compelling because of theoretical reasons. With regard to truth value, the term "credibility" may be more appropriate than validity, and with regard to consistency, "auditability" may be more appropriate than reliability.

Morrow (1994) emphasizes the eclectic nature of critical research in respect of the specific research tools it uses; critical theory has a specific research programme whose ontology sets the agenda and research priorities which privilege certain types of research designs and techniques, which have been usually called qualitative. However, it may use what have been called quantitative methods if the problem so requires. This study employs -- in keeping with what has been said above about critical theory's methodological eclecticism, and the need to avoid the pitfalls of such eclecticism, Siljander (1992: 12) -- a combined design (Cresswell 1994: 177-178) which allows the use of
(i) many of the techniques applicable usually to an intensive design format, including unstructured and structured interviews, participant observation, workshops of the participants in the research, written statements from stake holders, study of documents etc., and (ii) quantitative analytical techniques, usually applied to the extensive format. Thus, this study also employs, wherever relevant, surveys, techniques of statistical analyses like factor and cluster analyses, and tests of statistical significance.

A second dimension of the design employed in this study derives from the guidelines which were outlined in chapter one. That is, the study also draws on the collaborative and action research traditions, (see chapter one). The practice of action research dates back to Kurt Lewin's work in the 1940s which aimed at "generating knowledge about a social system while, at the same time, attempting to change it (Elden and Chisholm 1993: 121). Referring to the early definitions of action research, Rapoport (1970: 503) posed three dilemmas which such definitions raised: ethics, goals and initiatives; "in each case resolution in one direction leads away from science . . . while resolution in the other direction leads away from action . . . ‘good’ action research combines elements of both". He then formulated action research as research contributing "both to the practical concerns of people in an immediate, problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework" (ibid.: 499).

While action research originated in the fields of organizational studies and social work, it has been applied in educa-
tional research specifically in curriculum matters and teacher development (for instance Stenhouse 1975, and the work of the Deakin University Action Research network). In its pure form, educational action research is "a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice" of (a) their own practices, (b) their understanding of these practices and (c) the situations in which these practices are carried out, (Kemmis 1988: 42). Thus, the participant community plays a primary role in the control of the research. But Kemmis (1988) warns against misuse of this form of action research by researchers who co-opt educational practitioners into gathering data for them.

Recent developments in action research have resulted in what has been called participatory action research (Whyte 1991), and "participatory research", a more radical approach which aims at political empowerment of disenfranchised people (Fals-Borda and Rahman 1991; Hall and Kassam 1988), and action science which is a "form of action research that . . . places central emphasis on the spontaneous, tacit theories-in-use that participants bring to practice and research. . . ." (Argyris and Schon 1991: 86). These forms of contemporary participatory research have extended the scope of action research to make change and learning a self-maintaining process within participant systems -- moving to a higher level of self-determination and self-development capacities (Elden and Chisholm 1993: 125).

It is these institution-building aims of this form of research, along with the "mutually acceptable ethical framework" mentioned above, that underlie the guidelines for the research
developed in partnership with the gram vidyapiths. These are in consonance with the principles and guidelines regarding the ethics of educational research indicated by Cohen and Manion (1994: 373-376) and Burgess (1989). Thus, apart from informal discussions during the course of this study, there were formal meetings with the vidyapiths, including presentation of results in two workshops held for the teachers and directors. In addition, two interim reports were translated into the local language, Gujarati, and sent by post to all the participating vidyapiths, in accordance with the principle of feeding back results to the providers of information (Gupta 1992: 10). Also, in deference to the wishes of the teachers, the information quoted does not reveal the identity of the teachers (Cohen and Manion 1994: 366-367), except where such identification has been permitted.

In the next two sections, the framework of the study and the development of tools for data collection, (excluding the workshops held for the directors and teachers), are described.

3.3 Framework of the study

The description of the vidyapith model of education presented in the earlier chapters indicates the critical nature of the agenda that vidyapith education set for itself and the social transformational role that the original formulation of Basic education attempted to develop. Thus, the knowledge and skills associated with those "lower" in the traditional social hierarchy were "selected" as "valid" for transmission, implying a recognition of power structures in society and their links with the question of what kinds of knowledge are considered "valid". Other
elements like learning from labour, use of khadi as a symbol of identification with the poor, community living, parallel learning through placements with farmers and organizations (contextualized learning), the autonomy offered to teachers etc., reflect the explicit articulation of a radical value-orientation.

As indicated in chapter one, this curriculum has been subjected to demands for re-orientation in order to make it more "relevant" to emerging socio-economic trends. In accordance with the guidelines suggested for this study (chapter one) and what has been said above about the need for recognizing multiple "curricula", the rest of this chapter depicts the framework for considering the viewpoints of three main stake-holder groups: teachers, students and alumni.

(It should be noted here that, following from the studies of the teachers, students and alumni, two experimental initiatives were also undertaken as part of this study: an experiment with the project work of the third year women students of Mahila Gram Vidyapith, Nardipur, and an examination of the feasibility of entrepreneurship education in vidyapiths. The designs of these two initiatives are described in chapter five.)
Figure 3.1
Framework of the study: teachers

PERSONAL VARIABLES
- Experience/ Age
- Education in vidyapiths/others
- Faculty affiliation
- Post-graduation

Perceptions of factors affecting curriculum:
- Institutional factors
- Curriculum policy factors
- External socio-economic trends

Response strategies

Future priorities

Orientations/ directions for curricular change
- Possible experimentation
- Teacher development strategies

Factors under study

Practical issues:
- Teaching load
- Time adequacy
- Assessment systems

Teaching methodologies

Dimensions of teacher skill development

Flexibility for curricular innovation

Key:

- Influencing variables
- Factors under study
- Outcomes
Figure 3.2
Framework of the study: alumni

Key:
- Box with checkmark: Influencing variables
- Box with square: Factors under study
- Box with circle: Outcomes
Figure 3.3
Framework of the study: students

PERSONAL VARIABLES
Basic schooling background
Occupational background
Sex

Admission choices:
influences non-vidyapith education
particular vidyapith

Perceptions about aims of vidyapith model

Conceptual orientations regarding vidyapith education

Orientations regarding preferred expectations

Practical orientations regarding vidyapith education

Perceptions about curricular expectations

Perceptions about future plans and options

Feedback:
learning sources
teaching methods

Key:
- Influencing factors
- Factors under study
- Outcomes
- Subsidiary focus

Orientations/ directions for curricular change
Student induction/ development strategies
3.4 Development of tools for data collection, and sampling

1. Involving teachers: Survey and interview schedules

(i) Survey: The review of the various conceptions of curricula and curricular change (chapter two) indicated the importance of the participation of various stake-holder groups in a process of curriculum review. Teachers have always played a central role in the management of various aspects of vidyapith education—classroom teaching, community living in hostels, on-campus farms, learning from labour, and student placements and educational camps. (These aspects are described in detail in chapter one.) However, since most vidyapiths follow the curriculum pattern evolved by Lok Bharati, Sanosara—which was revised last in 1986—most teachers in the gram vidyapith network had not had an opportunity to contribute formally to curriculum reform.

In accordance with the participatory nature of the research, Lok Bharati, Sanosara, offered to collate the suggestions of vidyapith teachers regarding changes in the curriculum. These suggestions took the form of written statements supplied by the teachers of various vidyapiths on different aspects of the curriculum. These aspects were derived from the variables presented above in Figure 3.1. Thus, they included (i) practical issues in curriculum implementation like learning aims of the subjects taught, teaching loads, classes allotted to different subjects, adequacy of teaching methods, sequencing of subjects and topics, introduction of new topics, (ii) assessment and evaluation procedures and (iii) future socio-economic trends that would require a curricular response. The initial draft was pre-
pared with the assistance of Shri Mansukhlal Salla, the then Principal of Lok Bharati, Sanosara. This was revised with the help of experts. See Appendix 3.1 for the guidelines provided to the teachers.) One hundred and nine teachers, out of a total of about 200 teachers, were selected for this exercise by the Principals, from both the humanities and technical faculties. Out of the 109, 89 teachers from 13 vidyapiths responded with their statements.

(ii) In-depth interviews: About a third of this set of 89 teachers (thirty teachers), were selected for in-depth interviews. Three more teachers wanted to contribute to the study, so that the number of teachers interviewed increased to 33. These teachers were selected on the basis of two sets of criteria: (a) portrayal by their colleagues as active participants in efforts to improve vidyapith education; (b) educational background (vidyapith-educated or not), faculty affiliation (humanities and technical subjects), and vidyapith affiliation. (The details of the teacher backgrounds are presented in chapter four, Table 4.2). Eight vidyapiths were represented. These included three out of the four older vidyapiths set up before 1980. All the 33 teachers were interviewed more than once.

The first round of interviews was a set of open-ended "informant interviews" (Powney and Watts 1987: 18; Cohen and Manion 1994: 287-92) which focussed on identifying the factors that affected all aspects of the curriculum. Thus, the issues explored were institutional factors affecting the curriculum, curriculum policy factors affecting curriculum implementation, influence of external socio-economic trends on the curriculum,
response strategies evolved by teachers, and future priorities (Figure 3.1).

The second round of interviews aimed at obtaining the relative importance of the various curriculum issues identified by the teachers. Twelve teachers were interviewed more than twice (three times to five times), over a period of one year. The average duration of each interview was about 30 to 40 minutes. Wherever possible, the interviews were recorded. Follow up interviews were also conducted with certain teachers in order to obtain additional information or clarifications.

2. Involving the alumni: Survey schedule

The directors who participated in the March 1993 workshop (see chapter one) had agreed to revive a proposal, originally made by the Gujarat Gram Vidyapith Samaj in 1988, to obtain feedback about the curriculum and vidyapith education in general from vidyapith graduates (alumni). They requested Sabar Gram Vidyapith, Sonasan to help in this activity. However, on account of certain administrative and logistical difficulties, the present researcher was requested to undertake this exercise.

A preliminary list of key curriculum issues on which feedback needed to be obtained was prepared and discussed with experts within the vidyapiths. These included the perceptions about vidyapith aims, the factors affecting achievement of aims, curricular orientations for the future, dimensions of new skills or knowledge to be introduced and the utility of current pedagogical instruments. These issues were expected to be affected by the employment status of alumni and the number of years which had elapsed since graduation. (See Figure 3.2.) The personal varia-
bles and the curriculum issues were converted into a questionnaire which relied on open-ended questions (Stacey 1969). (See Appendix 3.2 for the format. The questionnaire, following standard practice, was pre-tested before finalization.) A total of 291 alumni were contacted, out of whom 138 responded.

The majority of the sample of alumni was derived from among persons identified through the records maintained by five vidyapiths — Lok Bharati, Gandhi Vidyapith, Gram Bharati, I.K. Chavda Gram Vidyapith and Sabar Gram Vidyapith. One particular difficulty was that, in most cases, only the permanent addresses were available and the current addresses of the alumni had to be obtained through initial letters to the permanent addresses. In the case of Lok Bharati, where the permanent address records were complete, the sample of alumni to be contacted was stratified according to year of passing. In the other cases, most of the available complete addresses were contacted. The rest of the sample was derived from addresses made available by six other vidyapiths. This exercise was supplemented by unstructured interviews of 18 alumni. These interviews followed the design used in the first round of teacher interviews.

3. Involving the students: Semi-structured interviews and survey — students of the 1993 batch

Semi-structured interviews were first conducted, at the beginning of the academic year 1993-94, with 28 first year students and 42 second and third year students in order to identify

7. A few vidyapiths bring out newsletters for their alumni, but they were the ones which also had complete addresses of their alumni. Therefore, the idea of using newsletters to contact alumni was dropped.
the dimensions of the various aspects of vidyapith education like the students' understanding of vidyapith education, their expectations and plans for the future. The guide used for these preliminary interviews is presented in Appendix 3.3. The interview data was analyzed to derive the student survey schedule.

The first step in the analysis of the preliminary interview data was "coding up", followed by clustering (Pfaffenberger 1988; Fielding 1993; Miles and Huberman 1994). After translation of the responses, the data was sorted into the three major categories being investigated: students' understanding of the vidyapith model of Basic education; expectations students have regarding the curriculum; plans for the future (in the case of second and third year students). Data pertaining to each category was coded inductively, and clustered along identifiable dimensions. The attributes of these dimensions were cross-checked with checklists prepared with the help of two sources: (a) articles relating to vidyapith education published in in-house magazines like Kodiyu (Lok Bharati, Sanosara) and the writings of the founders of the vidyapith movement, mainly Pancholi (1974), Thakar (1991) and Bhatt ([1946] 1983), (b) experts from within the vidyapiths. The checklists described, for each dimension, the relevant key phrases and concepts. This exercise served to validate the dimensions derived from the data. The dimensions derived, and typical explanations, are presented in chapter five. The results of the above exercise provided the basis for preparing the schedules for the student surveys. (Following standard practice, the survey schedule was pre-tested before finalization. See Appendix 3.3 for the schedule.)
Following this exercise, 163 first year students (from 12 vidyapiths), 176 second year students (from 13 vidyapiths) and 98 third year students (from 10 vidyapiths) were surveyed. The vidyapiths were spread over all parts of the state. The students were selected at random (equal intervals on the roll call). The interviews and survey were carried out with the help of five interviewers who were trained keeping in mind the skills needed, purpose of research and the likely blocks (Powney and Watts 1987: 134-139). Four of the interviewers were vidyapith graduates and hence were familiar with the institutional background of the study. Such familiarity is an advantage when qualitative data are being generated (Miles and Huberman 1994: 38). The survey of the first year students was carried out first. By the time they were surveyed, these students had spent about three months in the vidyapiths.

In addition, group interviews were conducted with 15 students in order to understand their "curricula". These students were also participants in the "Honey Bee" local survey of innovations programme, described earlier. Since participation in the latter project is voluntary, the students interviewed may perhaps be said to be those with more initiative.

The total number of teachers, alumni and students who contributed data is presented in Table 3.1.
### Table 3.1

**Number of students and teachers interviewed/ surveyed**

<table>
<thead>
<tr>
<th>Category</th>
<th>Contacted</th>
<th>Survey responses</th>
<th>In-depth interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers</strong></td>
<td>109</td>
<td>89 (82 %)</td>
<td>33</td>
</tr>
<tr>
<td><strong>Alumni</strong></td>
<td>291</td>
<td>138 (47 %)</td>
<td>18</td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First year</td>
<td>163</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>Second year</td>
<td>176</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Third year</td>
<td>98</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

4. In addition, some of the founders of the vidyapith movement were interviewed and the curriculum documents of Lok Bharati and Mahila Gram Vidyapith, Nardipur and literature related to the vidyapiths were studied.

   Field visits to various vidyapiths were undertaken at regular intervals for observation of vidyapith activities, and for interviews, and in a few cases, for group discussions with teachers and students and classroom interactions with students.

5. During a later stage of the study, curriculum experiments were undertaken at the Mahila Gram Vidyapith, Nardipur and Sabar Gram Vidyapith, Sonasan. The methods used in these experiments are described in chapter five.
3.5 Analysis procedures

Most of the questions asked of the teachers and students in the preliminary interviews, and the graduates, were open ended, so that the respondents had ample opportunity to express their views in the form they desired. In addition, the interviews, though focussing on curricular issues, were unstructured or semi-structured. The data so generated may be termed qualitative. A peculiar difficulty noted "in many discussions of qualitative research [is that] there is a reluctance of many . . . authors to lay bare the procedures associated with the analysis of data" (Bryman and Burgess 1994: 216). The "challenge for qualitative researchers . . . is to articulate as fully as possible the processes associated with data analysis" (ibid.: 224). In what follows, the procedures adopted for analysis of the teacher and student interview data, and the alumni survey data, are described in brief.8

3.5.1 Teacher interview data

As mentioned earlier, 33 teachers were interviewed with the aim of understanding their views on (a) the issues affecting the curriculum and the process of curriculum review and (b) the relative importance of these issues. The data was analyzed as follows.

The responses of each teacher, collected during the first round of interviews, were first divided into discrete observa-

8. This study was conducted in Gujarati. All the responses were translated into English for purposes of analysis. The translation was checked for accuracy by independent outsiders. In this regard, the help of S. R. Shukla, Ramesh Patel and Y. Radhakrishna is acknowledged.
tions, each indicating a particular issue. The observations of all the teachers were then pooled together. This pool was reduced to the minimum number of independent statements possible. In other words, observations dealing with the same issue were treated as one statement. A total of 41 statements were thus obtained. In order to reduce the number of statements, those statements which had been made by less than 70 percent of the teachers (23 teachers) were excluded for analytical purposes. Nine statements were thus removed, resulting in a final number of 32 for detailed analysis.

These 32 statements were then sorted into two sets, the criteria for sorting being:

(i) institutional factors: these included issues related to leadership, management, and institutional regulations;
(ii) curriculum policy: factors associated with a general understanding of the curriculum and its implementation, and statements relating to specific subjects.

This process of sorting resulted in 14 statements in the category of institutional issues and 18 statements in the category of curriculum policy and subject-related issues. The statements are presented, category-wise, in Table 3.2.

Table 3.2
Teachers’ statements about influences on curriculum

<table>
<thead>
<tr>
<th>Institutional issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dilution of Gandhian values in general</td>
</tr>
<tr>
<td>2. Certification becoming important focus of leadership</td>
</tr>
<tr>
<td>3. Accountability at all levels compromised</td>
</tr>
</tbody>
</table>

[continued on next page]
### Institutional issues

4. Compromise on non-negotiables by teachers and management  
5. Austerity in life style of leaders and followers disappearing  
6. Risk-taking of management constrained by financial difficulties  
7. Fall in student intake in recent past  
8. Long-term institutional development planning poor  
9. Contrary signals from role models to juniors and students  
10. Distance between students, teachers, management widening  
11. Self-reliance is under threat  
12. Linkages with research and other organizations weak  
13. Misuse of autonomy by many vidyapiths  
14. Not catering to individual interests leading to alienation

### Curriculum: Understanding, implementation

1. Cottage and rural industry subjects lacking  
2. Developing critical leadership in students losing importance  
3. Absence of basic equipment affects teaching  
4. Teacher development is a neglected issue  
5. Links of technical subjects with supporting subjects poor  
6. Entrepreneurship focus needs to be preferred  
7. Conservation, environment and productivity issues weakly linked  
8. New developments like information handling/computer education perceived as "beyond us"  
9. Learning through placement and hostel life need reflection  
10. Dominant green revolution bias in agriculture subjects against sustainable agriculture models  
11. More demand for job-oriented subjects affects curricular intentions negatively  
12. Self-reliance and "generalist" conception giving way to "specialism"  
13. Lecture orientation high and needs to be reduced  
14. Rural development and organization as subjects missing  
15. Local issues and problems like soil and water neglected in relevant subjects  
16. Repetition of subjects; streamlining needed  
17. Learning through labour becomes manual labour  
18. Practical support to theoretical learning weak

The scoring of the importance of each of the selected statements (ascending order of importance, one to four) was then factor analyzed (Rummel 1967), with SPSS/PC+ software. This procedure resulted in the isolation of the relevant factors for each category of issues. These, and further analysis through clustering of the teachers, are discussed in chapter four.
3.5.2 Alumni survey data

The answers to the open-ended questions, obtained from the 138 alumni, were 'coded up' and analyzed using SPSS/PC+ software.

3.5.3 Student data

The analysis of the interview data was described above. The survey schedules were administered on the campuses, by the trained interviewers who had assisted in the interviews. Thus, students could seek clarifications, if necessary. Certain methodological assumptions and procedures relating to the collection of background information of the students are listed below.

1. The question regarding family occupation was left open-ended, and the answers coded into three categories, agriculture, service (regular employment) and labour (dependence on agricultural labour). A few responses which indicated a combination of labour and minor artisanal activity have been coded under labour.

2. Questions regarding family income and land holding were also left open-ended, but since the surveys were administered on campus, answers to these questions were checked by the five interviewers with vidyapith faculty members.

The analysis of the data was carried out with SPSS/PC+ software. The statistical procedures and tests of significance used, have been based primarily on Cramer (1994).

This chapter dealt with the assumptions underlying the selection of the research methods used in the present study. The procedures used for data collection and analysis have also been described. The results of the analysis of the teachers', students' and alumni's responses are presented in the next chapter.