

CHAPTER IV
METHODOLOGY

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The present study is intended to trace out the problems of Scheduled Caste and Scheduled Tribe women students pursuing higher education. Further to find out the sources of their problems. Keeping in view the objectives of the study, there is a need to collect the required information from primary as well as secondary sources. The secondary sources are college admission registers, scholarships registers, etc. But for collection of primary data from the women students belonging to Scheduled Caste and Scheduled Tribe communities requires a tool. The review of literature clearly demonstrates that very few attempts have been made to study the constraints of women students of Scheduled Caste and Scheduled Tribe pursuing higher studies by using a comprehensive research device necessitated to develop a research tool.

4.1 Development of the Tool for the study

As the study is intended to identify the constraints of SC and ST women students in pursuing higher education, the information is required to be collected both from the Institutions offering higher education courses to the women students and SC and ST women students. The information is required to be collected from both primary and secondary sources. To collect the primary data a tool is required. Primary sources are original sources from which the researcher directly collects the data from the sample units. The primary data are first-hand information collected through various methods such as

Observation, Interviewing, Mail survey, Experimentation, Simulation and Projective Techniques, Sociometry.

Schedules and questionnaires are most common instruments of data collection. Both of them contain a set of questions logically related to a problem under study. A schedule is used as a tool for interviewing where as questionnaire is used for mailing.

Measurement scales and Indices

Scales are devised for measuring variables in social science research. Indices and scales are often used interchangeably to refer to all sorts of measures, absolute or relative, single or composite, simple or elaborate. Scales refers to the procedure by which numbers or scores assigned to the various degrees of opinions, attitude and other concepts.

Classification of Scales

Scales may be classified in many ways. In terms of subject matter, scaling methods or techniques, scale function, levels of measurement and number of dimensions. However there is no widely accepted system of classification.

Scaling Techniques

Scaling techniques may be classified as below.

- a. Arbitrary scales
- b. Judgement scales
- c. Item analysis scales
- d. Rating scales
- e. Ranking scales
- f. Cumulative scales and
- g. Factorial scales

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Item analysis: Likert's summated Scale

The most popular rating scale under item analysis is Likert's scale of summative rating. Rensis Likert was instrumental in developing summated rating scale based on item analysis. Likert scale is by far the most popular of all the measurement scales. It is meant for measuring ordinal attributes like attitudes. It is designed to measure the intensity with which an attitude is expressed. This scale consists of number of statements which express either a favourable or unfavourable attitude towards the object of the study. The respondent is asked to respond to each statement in terms of 5 degrees of agreement (three and seven point scales are also used).

Advantages of Likert's summated Scale

Likert's summated Scale has many advantages which account for its popularity. It is easy and quick to construct. It is easy to use this scale. It provides more precise information about a respondent's degree of agreement. It is unidimensional i.e. all items measure the same thing. It does not require the use of judges. It is flexible. The researcher is at liberty to include as many or as few items in the scale. It lends to itself in the ordinal measurement.

Limitations of Likert's summated Scale

The most serious weakness of Likert's summated Scale is its lack of reproducibility. The same total score may be obtained in many different ways. Hence the raw score has little meaning or two or more identical scores may have totally different implications. Often for this reason, the pattern of responses becomes more interesting than the total score. Another limitation is that the scale offers no metric or interval measures. It

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also lacks a neutral point, one cannot know where scores in the middle, range from mildly positive to mildly negative.

However apart from the above disadvantages, Likert's summated Scale is highly reliable for rough, ordering of people with regard to a particular attitude. It is less laborious.

Since scheduled caste and scheduled tribe women student pursuing graduation and post graduation course in Arts, Science, Commerce and Professional courses forms the unit of the study and intended to identify the constraints of scheduled caste and scheduled tribe women students pursuing higher education i.e., graduation and post graduation course in Arts, Science, Commerce and Professional courses, there is a need to identify not only the constraints but also the intensity of constraints. Hence among all the possible tools the Likert's summated Scale found to be the best one as it is not only helps in generating required information through personal interaction, but also easy to execute and elicit additional clarifications. Thus the investigator has designed Likert's summated Scale by using 5 point ratings keeping in view the objectives of the study. The 5 point scale is used to measure the opinion of the students towards the statements of constraints faced by them in pursuing higher education.

In the process of construction of summative rating scale with five point ratings the investigator has collected number of items relating to constraints of scheduled caste and scheduled tribe women, from the scheduled caste and scheduled tribe women pursuing higher education, SC/ST hostel wardens, college teachers, scheduled caste and scheduled tribe passed out students, etc., through personal interviews and interaction. The items thus

collected are pooled and supplemented with the items drawn from the review of literature. Thus put together 120 items are framed and are categorized into eleven areas based on the nature of the item viz. Educational constraints, Personal constraints, Economic constraints, Academic constraints, Discrimination constraints, Family support constraints, Institutional constraints, Teachers support constraints, Peer group support constraints, Neighbours support constraints, Government support constraints. The designed Likert's summated Scale consists of two sections. The section I of the scale designed to elicit the personal background of the sample such as age, caste, course details, education level of both father and mother, residential status at present, residential status at the time previous course pursuing, type of admission into the present course, etc.,. The section II designed to elicit the information about the constraints in eleven areas as mentioned above. In addition, the secondary information relating to the extent of participation of SC / ST students in various extracurricular activities, special provisions in implementation for the Scheduled Caste and Scheduled Tribe women students, status of reservations provided for them in various courses and the incentives provided to them were collected from the authorities of the educational institutions. The known fact is that the income influences the education of Scheduled Caste and Scheduled Tribe community. Hence the income is not included as one of the personal characteristics.

4.2 Pilot Study

The tool was designed to measure the opinion of the Scheduled Caste and Scheduled Tribe community women students towards the constraints faced by them in pursuing higher education. The tool was administered to a sample of 100 students belongs

to scheduled caste and scheduled tribes to know the effectiveness of the scale in terms of reliability and validity of the scale through the responses generated.

Reliability

To know the reliability of the tool, test and re-test reliability of the tool was examined. This was done by obtaining the scores of the tool twice with an interval of three weeks between the first and second administration of the tool to the set of 100 sample. The correlation coefficient between the two administrations was 0.92 which is significant at 0.01 levels. Therefore the rating scale designed for the study may be considered as having high reliability.

Validity

Any instrument developed for measuring a particular aspect will be considered appropriate only when its validity is proved. The rating scale prepared to study the constraints of scheduled caste and scheduled tribe women pursuing higher education possess satisfactory validity with reference to the contents and items validity. For the purpose of present study scale consists of 106 items in 11 areas viz. Educational constraints, Personal constraints, Economic constraints, Academic constraints, Discrimination constraints, Family support constraints, Institutional constraints, Teachers support constraints, Peer group support constraints, Neighbours support constraints, Government support constraints. The description of the details relating to the validity of the scale was as follows.

i. Content Validity

The content validity indicates how adequately is the content of a test sampling domain about which references are to be made. Further when taken collectively, the items should constitute a representative sample of the variable that can be measured. The scale relates to the constraints of scheduled caste and scheduled tribe women pursuing higher education developed keeping the above in view. As already described the items for the scale were collected from the scheduled caste and scheduled tribe women pursuing higher education, SC/ST hostel wardens, college teachers, scheduled caste and scheduled tribe passed out students, etc. Further they were also supplemented by a review of related literature to make sure that all possible items were included. Thus it can be reasonably assumed that the scale possesses satisfactory content validity.

ii. Items Validity

Items validity stresses on the extent to which the predicts segregation of examinees into those with high versus those with low criterion scores. The discriminative power of the item of the present scale was established by calculating their 't' values. Thus items chosen for the schedule were found to be effectively valid.

iii. Intrinsic Validity

Intrinsic validity indicates the degree to which a test measures what it purpose to measure. This can also be stated as how well the obtained scores measure the tests true score component. Square root of the reliability value of the scale means its Intrinsic validity. Thus the Intrinsic validity of the constraints scale was $0.92=0.959$ which can be assumed that the score has highly satisfying Intrinsic validity.

As above the data thus collected are studied. The items which generated ambiguous responses were modified or deleted as suggested by the experts. In this way the scale is sharpened and finalized with 106 items under eleven areas viz. Educational constraints, Personal constraints, Economic constraints, Academic constraints, Discrimination constraints, Family support constraints, Institutional constraints, Teachers support constraints, Peer group support constraints, Neighbours support constraints, Government support constraints. The finalized and administered scale is presented in the annexure.

4.3 Locale of the study

The study is intended to identify the constraints of SC and ST women students pursuing higher education in Chittoor District of Andhra Pradesh. Hence the locale of the study is Chittoor District of Andhra Pradesh. Chittoor district is one of the districts having a sizeable size of SC and ST population in all the 66 mandals. As per 2011 census the total population of Chittoor district is 41,74,064 (males 20,90,204 and females 20,83,860) out of which Scheduled Caste population is 7,85,760 (males 3,89,582 and females 3,96,178) and Scheduled Tribe population is 1,59,165 (males 79,756 and females 79,409). The literacy rate of the district as per 2011 census is 71.53 percent (in 2001, 66.77%). Male literacy rate is 79.83 percent and female literacy rate is 63.28 percent.

The Chittoor district comprised of 66 mandals with 3 revenue divisions. For the purpose of the study Tirupati Revenue Division has been selected as locale of the study. Six Universities viz., Sri Venkateswara University, Sri Padmavati Mahila Visvavidyalayam, Acharya N.G. Ranga Agricultural University, Sri Venkateswara

Veterinary University, Sanskrit Vidyapeeth (Central University), Vedic University and more than fifty higher education institutions offering Under Graduation and Post Graduation Courses under private and Government management are located in this division. Apart from the above a number of institutions like Ashram schools, A.P. Residential Junior colleges for SC and ST community are also enforced the reservations at the entry level. There are 18 degree colleges, 15 post graduate colleges and 30 professional colleges. Tirupati is not only famous for the pilgrim Centre but also an important centre for the Higher Education and many of these institutions are providing hostel facility to the students. SC and ST government hostels especially for girls and women are also located in this division.

4.4 Sample of the study

The scheduled caste and scheduled tribe women pursuing higher education institutions in chittoor district forms the sample frame. The sample of the study constitutes SC/ST women students pursuing under graduation and post graduation in different branches of Arts, Science, Commerce and Professional courses. An equal number of scheduled caste and scheduled tribe women pursuing under graduation and post graduation are selected as sample of the study. For the purpose of the selection of the sample, two Universities viz., Sri Venkateswara University and Sri Padmavati Women's University are selected. As there are no affiliated colleges for the Women's University, from among the affiliated colleges of S.V. University, two affiliated colleges are selected randomly. 60 scheduled caste and scheduled tribe women students from each branch i.e., Arts, Science, Commerce and Professional courses both at under graduation and post graduation levels

were selected randomly as sample. Thus a total of 480 scheduled caste and scheduled tribe women students were selected as sample i.e., 240 from under graduation and the same number from post graduation courses were selected randomly.

4.5 Administration of Tool

The tool thus prepared by the investigator was administered to the identified SC and ST women pursuing under graduation and post graduation courses with different branches in Arts, Sciences, Commerce and Professional courses like Management and Engineering streams studying at different institutions. The investigator has contacted them personally and explained about the purpose of the study. The investigator educated them about contents of the schedule and about the different constraints viz. Educational constraints, Personal constraints, Economic constraints, Academic constraints, Discrimination constraints, Family support constraints, Institutional constraints, Teachers support constraints, Peer group support constraints, Neighbours support constraints, Government support constraints in pursuing higher education by Scheduled Caste and Scheduled Tribe women students. The investigator also explained the students about the ways and means of filling the schedule. Before collecting the data a good rapport was established with the sample. The tool was administered individually to all the sample of the study.

4.6 Analysis of the Data

The primary data thus collected were pooled together and analyzed by using the statistical techniques like means, Chi-test, 't' test, ANOVA test, Multiple Regression etc, for testing the hypotheses and to draw the conclusions of the study. In the next chapter the findings of study were presented in five sections. The section I presents the profile of the

sample. Section II presents the classification of the constraints, Section III presents the association of personal characteristics with various constraints in pursuing higher education and section IV presents the influence of the personal characteristics on the constraints of pursuing higher education and section V provides an insight on the contribution of the personal characteristics for the constraints in pursuing higher education.