CHAPTER-III
RESEARCH METHODOLOGY

3.01 Introduction

This chapter deals with the methodology adopted by the researcher for the research study. After the selection of the topic and review of related studies, appropriate research strategy is planned. Besides, the preparation of the tool and validation of the research tools used in this investigation and the procedures adopted in the collection of data are explained in this chapter. In this study, the researcher plans to collect data in the form of questionnaire on the availability of infrastructure facilities and human resource, accessibility to these resources and the assurance of quality education from the students, faculty members and administrative staff of Idhaya College for women, Pudupalayam.

In educational practice, case study is one of the most commonly used approaches. Hence, the researcher uses case study method in this study. The researcher analyses the response of the students, faculty members, and administrative staff to assess the quality of education provided. Based on the objectives, the hypothesis are framed and tested. Keeping all the seven dimensions of quality in mind the researcher has constructed a valid tool for all the three categories of subjects.

3.02 Need for the study

Women have been considered inferior in social status. They face not only gender discrimination of various degrees and types at different levels, but also suffer the most from sexual harassment. All these factors coupled with the low female literacy rate, lack of self image and self confidence. Education of women can instill faith in them and prepare them to face
challenges in life. At present, there is an increasing awareness at all levels on the need to empower women in order to raise their status. It is strongly believed that providing education to women will bring about the desired changes. Since Idhaya College for women is located in a remote village, a study of the quality education offered is necessary to find out the impact of establishing educational institutions for women in rural areas.

3.03 Significance of the Study

Idhaya College for Women has completed eight years in rendering educational service to the women in this area. Considering the poor financial status of the people and the helpless women students, it is necessary to provide quality education to them. In all these eight years the institution has concentrated on the different dimensions of quality. Hence a study of the availability of infrastructure, study material, teaching aids etc. and the accessibility of these facilities is undertaken so that the quality could be established. In the present context the study is significant because quality assessment serves as a guideline to take remedial measure and plan further steps to improve quality of education in future.

3.04 Objectives of the study

The study is undertaken with the following objectives:

1. To find out the views of the Students, Faculty and Administrative Staff on (i) Curriculum, (ii) Teaching, Learning and Evaluation, (iii) Research, Consultancy and Extension, (iv) Infrastructure and learning Resources, (v) Student Support and Progression, (vi) Governance and Leadership and (vii) Innovative practices.
2. To identify whether there is any uniformity in the views of the Students, Faculty and Administrative staff on (i) Curriculum, (ii) Teaching, Learning and Evaluation, (iii) Infrastructure & Learning Resources and (iv) Student support & progression.

3. To find out whether there is any significant difference in the views of Students, Faculty and Administrative staff on (i) Curriculum, (ii) Teaching, Learning of Evaluation, (iii) Infrastructure & Learning Resources and (iv) Student support & Progression.

4. To identify whether there is any significant difference between Students and Faculty on (i) Curriculum (ii) Teaching, Learning and Evaluation, (iii) Student Support & Progression.

5. To find out whether there is any significant difference in the views of Students and Administrative staff on (i) Teaching, Learning and Evaluation and (ii) Student Support and Progression.

6. To find out whether there is any significant difference between the Views of Faculty and Administrative staff on (i) Teaching, Learning and Evaluation, (ii) Research, Consultancy and Extension and (iii) Governance & Leadership.

3.05. Hypotheses of the study

The researcher proceeds in her study with the following hypotheses

1. There is significant difference in the views of the Students, faculty and Administrative staff on i) Curriculum ii) Teaching, Learning and Evaluation iii) Infrastructure and Learning Resources and iv) Student Support and Progression.
2. There is significant difference in the views of Students, Faculty on (i) Curriculum, (ii) Teaching, Learning and Evaluation and (iii) Student Support and Progression.

3. There is significant difference in the views of Students and Administrative Staff on (i) Teaching, Learning and Evaluation and (ii) Student Support and Progression

4. There is significant difference in the views of Faculty and Administrative staff on (i) Teaching, Learning and Evaluation, (ii) Research, Consultancy and Extension and (iii) Governance and Leadership.

3.06 Delimitations of the study

- The researcher has restricted the study only to Idhaya college for women, Pudupalayam.
- The researcher has conducted the study only during the academic year (2012-13).
- The data is collected within a period of one month from the UG & PG students only.
- The data is collected from 350 of UG & PG Students, all Faculty members (50) and 10 Administrative staff, faculty, administrative staff and students.
- The parents lie beyond the scope of the study.

3.07 Scope for the Study

The study would help the management and the administrative staff to identify the quality of education provided in the college. It may also serve as a check list to find out the deficiencies which are detrimental to quality of education. The research findings would help the faculty members and the
managements to take efforts to fulfill the requirements of quality which may help the faculty, administrative staff and the management to interact and accelerate up the remedial measures to ensure quality education. Besides, the stakeholders will get to know about the level of quality education provided in the college and raise their voice in Parent-Teachers Association meeting on providing quality education to the students.

3.08 Research Questions

The study envisages the following research question:

(i) Is the curriculum for various courses understood clearly by the faculty members and students?

(ii) Do the teaching, learning, and evaluation fulfill the objectives of the curriculum?

(iii) Are the research, consultancy and extension activities encouraged and undertaken?

(iv) Are the necessary infrastructure facilities and learning resources available and Accessible to the student’s faculty and staff?

(v) Does the institution extend adequate student support facilities and programmes and encourage the students and faculty to achieve progress?

(vi) Does the management implement democratic governance and decentralize Decision-making to involve everyone in governance and provide chance to develop leadership qualities?

(vii) Does the institution adopt innovative practices in teaching, learning and Administration?
3.09 Research Procedure:

The researcher, in order to assess the availability and accessibility of infrastructure facilities, human resources and the assurance of quality education in the college, adopts case study method. Seven dimensions of quality are identified and suitable items are framed to find out the availability and accessibility and based on the response (yes/no), level of the quality is assessed. The percentages of positive/negative responses are calculated and they are subjected to statistical analysis. Finally, the statistical outcome is interpreted and findings are reported.

3.10 Case Study

The case study is an intensive investigation of a social unit. Generally, the social unit may be an individual, a family, a school/college a drop of delinquents, dropouts, or any teenage group. In the case study the researcher focuses on an individual/unit in depth. He/ She collects relevant data about the present status, past experience and environmental influences/ forces which contribute to the behavior of the individual/ social unit, and how these factors relate to one another. The analysis of the factors and their interrelationship, help the researcher, to construct a comprehensive and integrated picture of the unit.

3.10.1 Advantages of the case study

- The case study is attempted to understand an individual/ a unit in depth. It tries to understand the whole ‘case’ in the totality of his/ her environment.
- The case study often provides an opportunity to develop insight into the basic aspects.
- The case study helps the researcher to observe events both within and outside the education setting in their totality. The results are
interpreted in the light of the relationship and interdependence of events.

- A case study helps the researcher to formulate a fruitful hypothesis/a set of hypotheses

### 3.10.2 Limitation of the Case Study

- In the case study data are subjective. There is every chance that the data are unconsciously biased or presented according to the subjective desire of the individual/group’s desire.
- The facts about an individual/social unit may have little relationships to other cases.
- It would be impossible to either confirm or refute the findings/results of the study through empirical study.
- A reliable case study can rarely be conducted by a single individual. It requires a team of experts.

In the present study, the researcher attempts case study to assess the availability, accessibility of quality in Idhaya College for Women, Pudupalayam. She adopts this method using seven dimensions of quality criteria, viz. curriculum, Teaching, Learning and Evaluation, Research Consultancy and Extension, Infrastructure and Learning Resources, Student Support and Progression, Governance and Leadership and innovative practices.

### 3.10.3 Units of the case Study

The researcher has chosen three groups involved in the activities and governance of the college. The units of the case study are a) Students b) Faculty members c) Administrative staff. The students are the stakeholders. Their response would provide reliable data for interpretation. Secondly, the
teachers are deeply involved in teaching-learning process. Further, they contribute to a greater extent in quality assurance in education. Finally the administrative staff are engaged in the recording all events/ progress in academic and administrative matters. They remain a bridge between the students and administrators/ management in the matters of finance and expenditure. Hence these three groups are chosen for collection of data.

3.11 Dimensions of Quality Assurance

The Seven Dimensions of quality assurance are:

- Curriculum.
- Teaching, Learning and Evaluation.
- Research, consultancy and Extension.
- Infrastructure and Learning Resources.
- Student Support and Progression.
- Governance and Leadership
- Innovative practices

Due attention is paid by the researcher in the construction of the tool for the case study. Firstly, the seven dimensions which decide quality assessment were identified. To list the dimensions, the researcher consulted the reports i) Indian National board of Accreditation, 2003 guidelines, ii) Reports of the accreditation committees iii) European Quality Improvement System, Europe, 2003 iv) Middle East commission on Higher Education, USA 2002 v) National Assessment and Accreditation Council (NAAC), 1994. The key aspects for each dimension were formulated 74 key factors have been listed as mentioned below:
3.11.1 Units for Dimension

Dimension – I curriculum

Key Aspects

- Vision and Mission statement
- Realization of spirit of Mission
- Dissemination of Mission
- Motivational Programmer
- Monitoring Mechanism

Dimension – II Teaching, Learning and Evaluation

Key Aspects

- Preparation of academic calendar
- Adoption and follow up of academic calendar
- Periodical tests and Evaluation
- Remedial Coaching
- Assessment of the improvement after coaching
- Bridge courses
- Teaching Plan
- Teaching Aids
- Usage of international packages
- Orientation of usage of Audio-Visual Aids
- Evaluation of teachers
- Uniformity in evaluation
- Regular feedback
- Academic audit
- Special training
- Collaborative arrangement
Dimension – III Research Consultancy and Extension

Key Aspects

- Faculty members’ profile
- Facilities given to faculty to do research
- Seminars/ Workshops organized
- Presentation of papers by invitation
- Collaborative agreement
- Research publication

Dimension – IV Infrastructure and Learning Resources

Key Aspects

- Availability of learning resources
- Availability of basic amenities
- Availability of the central facilities
- Hostel facilities
- Computer and internet facilities
- Medical and transport facilities
- Extracurricular facilities
- Power backup facilities
- Reprographic facilities
- Special provision for physically challenged person
- Special attention to SC/ ST and weaker section of the society
- Preference given to the socially under privileged and rural students
Dimension – V Student Support and Progression

Key Aspects

- Publication of prospects and handbook
- Information about available resources
- Special coaching to slow learners/ under privileged students
- Special facilities
- Student participation in sports activities
- Personality development program
- Arrangement of placement opportunities
- Motivational training to students
- Students counseling
- Academic and personal counseling
- Complaints and grievance
- Role of alumni in development activities
- Feedback from parents and students

Dimension – VI Governance and Leadership

Key Aspects

- Constitution of committees
- Number of meetings
- Implementation of resolution
- Internal co-ordination
- Periodical meetings with staff
- Manpower assessment
- Requirement of staff
- Up gradation of training
- Motivational program on using teaching aids
- Reservation policy
• Budget allocation
• Internal resource generation
• Utilization of loans
• Internal/External Financial audit
• Financial Assistance to show events
• Examination reforms

**Dimension – VII Innovative Practices**

**Key Aspects**

• Interaction with other colleges in the area
• Inviting students/ Sending students and Faculty for collaborative learning
• Encouraging peer learning
• Coordinating and co-operating with the local leaders/elected representatives for undertaking welfare programmes
• Working with self-help group in the area
• Helping the village community at times of emergency

The key aspects under each dimension have been taken into consideration and statements were formulated to get specific information. For the purpose of getting response easily and specifically the key aspects were sequenced. For each key aspect suitable statements were framed. The tool is given in the form of questionnaire. In consultation with the experts the key aspects were shortlisted and suitably worded. For clarity the units under each dimension are given.

**Curriculum**

• Dissemination of vision and Mission
• Monitoring Mechanism
Teaching, Learning and Evaluation

- Academic calendar
- Remedial/ Special coaching
- Effective use of teaching aids
- Adoption of evaluation procedures
- Follow up and feedback from students

Research, Consultancy and Extension

- Facilities for during Ph.D
- Participation in research activities
- Publication

Infrastructure and Learning Resources

- Availability of Master Plan
- Basic infrastructure facilities
- Residential facilities
- Special facilities
- Budget provision and maintenance
- Instructional Materials
- Laboratory for learning
- New technology and support services

Student Support and Progression

- Remedial/ Special coaching
- Co-curricular and Extra- curricular activities
- Placement cell
- Career Guidance and counseling
- Alumni Association
Governance and Leadership

- Formation of committees
- Decision making with regard to academic activities
- Admission Process
- Resource mobilization and Management

Innovative practices

- Parent-Teacher interaction
- Coordinating / Cooperating with local leaders
- Helping village community.
- Conceptual Framework

3.12 Construction of Research Tool

Quality is an abstract term and an elusive attitude. It is an attitude of value which is very difficult to measure. From time immemorial, quality has been insisted, discussed and debated throughout the world. The word gains meaning depending on the customers’ expectation/ stakeholders’ demands. In different areas such as business, production, service and education the term is defined in different ways. In the field of education, the word ‘quality’ implies ‘standard’. The search for Universal concepts and principles in the quality function is relatively a recent phenomenon.

The researcher has identified seven dimensions which form the major components to find out the level of quality in education. Under each dimension the key factors are identified. Based on the key factors statements are selected to get the responses from the students, Faculty and administrative staff. In any quality study, both the provider and the stakeholders are the two major categories whose views should form the basis for assessment. Hence the researcher has chosen faculty and administrative
staff from the provider side, the students from stakeholder side. She has
selected adequate number of statements under each key factor to get a
complete view of the quality of education offered in the college.

3.13 Pattern of the Research Tool

The seven dimensions of quality are sequenced according to the order
of operation. In education a) **curriculum** is the broad framework of the
objective /target expected to be achieved at the end of the course. Secondly,
the implementation of the curriculum is through b) **teaching, learning and
evaluation**. For the effective teaching learning and evaluation c) **research
and consultancy** need to be strengthened. For carrying out the activities
relating to the dimension (a-c), (d) **the infrastructure facilities and human
resources** are essential. The students and parents are the stakeholders. They
pay for their education. They should be suitably supported for achieving
progress e) **student support and progression**. The implementing authority
monitors the progress and takes suitable decision. The entire education
system would collapse if f) **governance and leadership** is not efficient.
Finally the educational institution in order to gain confidence of the
stakeholder have to focus on g) **innovative practices** and establish that they
follow different approaches to prepare the students for the future. Hence all
the seven dimensions are sequenced suitably for the purpose of collecting the
views.

3.14 Selection of Research Items

Practices 11 dimension 33 key factors scale to accredit graduate school of
public health (Appendix-I) European University Improvement systems
(2003)adopts 10 dimension 32 key factors scale to assess the quality of
institution. Middle State Commission on Higher Education,
USA(2002)follows 13 dimension 45 key aspects scale to record the
characteristic of excellence,2002 (Appendix-II). National Institution for
Academic Degrees and University Evaluation -JAPAN (NIAD) follows 12 criteria – 34 key factors to monitor and evaluate the quality of education. University Self Assessment Model (Pakistan) suggests 10 dimension – 31 key factors scale to maintain quality of higher education (Appendix-III). AICTE has constituted NBA to accredit Diploma, UG, PG programs in Engineering and Technology, Management, Architecture, Pharmacy, Hotel Management and Catering Technology. The NBA follows 7 Dimension -41 key factors scale to assess quality (Appendix-IV). NAAC, established in the year 1994, follows 7 dimension 36 key factors scale to ensure and enhance quality of higher educational institutions (Appendix-V).

Focusing on the dimensions and key factors, the researcher has chosen totally 381 statements to get the views of students, faculty and Administrative staff. Students have responded to 125 statements. Faculty recorded their response to 112 statements and the administrative staffs have given their views to 144 statements.

Based on the dimension and key factors mentioned in various quality assessment criteria adopted in various countries including India, the researcher has selected 7 dimensions – 74 key factors to collect the views for the case study.

3.15 Wording of the statements

Each statement included in the questionnaire is clearly worded to get the response. The respondents will put √ mark either on ‘yes’ or ‘No’ are depending on the views. The statements have been grouped under each category for clear guidance to the respondents. The statements are self explanatory and clearly worded. Suitable statements were prepared for students, faculty, and administrative staff separately. The statements thus grouped under different key factors, were prepared in the form of questionnaire.

3.16 Reliability of the research tool
Reliability is the consistency with which a tool measures, what it measures (Garrelet, 1973). The reliability of a tool can be established by using any one of the following four methods: test-retest method, parallel form method, split-half method and rational equivalence method or otherwise known as internal consistency method. In this study, the internal consistency method was used. By using KR-20 method the reliability co-efficiencies of the various sections of the tool i.e with reference to the seven dimensions were calculated and the reliability co-efficiencies were found to be 0.74, 0.79, 0.81, 0.73, 0.69, 0.84 and 0.68 respectively.

3.17 The validity of the Tool

According to Nunnally (1970) systematic plan and procedure of the construction of tool would ensure the validity of total rather than testing the validity of measures after they are constructed. Nunnally (1970) stated that to ensure content validity, the following two important standards are necessary:

i) A representative collection of items

ii) A sensible method of test constructions

In this research study seven dimensions and appropriate key aspects related to each dimensions were collated from the quality monitoring agencies such as NBA and NAAC (India) and Abroad. The operational indicators relating to such key aspects and dimensions were also identified.

On the basis of the suggestions offered by the quality experts in education, the redundant indicators have been eliminated and the research tool evolved was modified and re-worded. Thus a systematic methodology is adopted in developing this tool and content validity is ensured.

3.18 Data Collection

The questionnaire prepared was printed separately for students, Faculty and administrative staff. The statements based on seven dimensions
and key factors of each dimension are worded differently for each of the three categories to avoid mixing up. Firstly, the questionnaire were distributed to the students numbering 350. The respondents were given an hour time in the classroom after the class hours with a request to record their views factually. Since the researcher is the head of the institution, the students may give biased views to the statements. Hence she requested the faculty to administer the questionnaire and collect the data. Then the researcher herself distributed the questionnaire to the faculty and administrative staff on the same day. They were given two days time to record their response and give them to the researcher. Thus the researcher collected the data from three categories of respondents.

3.19 Scheme of Data Analysis

After collecting the data, the researcher calculated the frequency of ‘yes’ or ‘no’ response for each statement given by the students, faculty and administrative staff. The percentage of ‘yes’ or ‘no’ was calculated and tabulated for analysis. The percentage of ‘yes’ or no for each statement is interpreted. The highest/lowest percentage of ‘yes’ indicates the quality. The difference in the views among students and faculty and administrative staff is interpreted suitably. The chi-square is calculated to find out the significance of the difference in views expressed by the three categories of subjects.

The researcher ventures to tabulate the data and presents the interpretation in the following chapter.