CHAPTER - V

SUMMARY AND CONCLUSION

This Chapter presents a brief summary of the study and the findings, conclusions that have been drawn from the findings, implications for teacher education and suggestions for further research in the field.

1. The Problem

1.1 Statement of the Problem

The present study was undertaken with a view to develop objective, reliable and valid scales to evaluate functioning of Colleges of Education in Karnataka.

1.2 Aspects of the College Considered

The following aspects were considered in the study (1) College plant, (2) College administration, (3) Teaching faculty, (4) Practice teaching, (5) Co-curricular activities, (6) Evaluation procedures and techniques, (7) Innovations and experiments.
1.3 **Specific Objectives**

The specific objectives of the study are:

i. To develop an objective, reliable and valid scale to evaluate 'college plant',

ii. To develop an objective, reliable and valid scale to evaluate 'college administration',

iii. To develop an objective, reliable and valid scale to evaluate 'teaching faculty',

iv. To develop an objective, reliable and valid scale to evaluate 'practice teaching',

v. To develop an objective, reliable and valid scale to evaluate 'co-curricular activities',

vi. To develop an objective, reliable and valid scale to evaluate 'evaluation procedures and techniques',

vii. To develop an objective, reliable and valid scale to evaluate 'innovations and experiments', and

viii. To evaluate the scales in terms of -

   - inter-rater reliability of the entire scale and each sub-scale,
   - content and concurrent validity,
- objectivity, and

- practicability.

1.4 Scope of the Study

The present study was confined to one-year full time secondary teacher education leading to the B.Ed., degree by the Universities of Karnataka.

2. Development of Scales

Scales were developed for all the seven aspects considered for the study following a scientific procedure.

The steps of procedure are briefly narrated in the following paragraphs.

2.1 Determination of Important Sub-aspects of each Aspect

Important sub-aspects of each aspect were determined in consultation with a few principals of colleges of education, a few experts in teacher education and on the basis of review of related literature/studies.

2.2 Writing of Statements with Reference to the Sub-aspects

Under each sub-aspect, a number of criterion statements were written.
2.3 Using of Statements for Preparing Rating Scales

Statements were used to prepare 5 point rating scales.

2.4 Writing of Procedures to be Followed in Using the Scales

The purpose of the study was to prepare objective, valid and reliable scales. In order to make the scales really so, there was a need to use some commonly accepted procedures and guidelines to rate the scale. Hence an exhaustive and objective manual of directions was prepared.

2.5 Screening of Scales by a Panel of Judges

The draft scales thus prepared were sent to a panel of judges who are considered to be top level teacher educators to offer their valuable candid suggestions on the content coverage, criterion statements, clarity of guidelines, etc., and to offer suggestions for the improvement of the scale.

2.6 Modification of Scales

On the basis of suggestions offered by a panel of judges, scales were improved and procedures and guidelines were modified.
2.7 **Try-out of the Scales**

Modified scales were given to a few Colleges of Education to find out the practical difficulties that the rater may come across in rating the scale. Further, each statement was examined for objectivity using the $X^2$ test.

2.8 **Finalisation of the Scales**

Since the raters expressed that they did not experience any difficulty in rating the scales, and all the criteria and corresponding guidelines were found to be objective, the modified scales were accepted as the final scales. (See Appendices 'B' and 'C' for the scales along with the guidelines.)

2.9 **Preparation of Proforma**

In order to facilitate the rater in evaluating the functioning of the college against various criteria, a proforma was prepared. It may be added here that the college can supply the needed information/data accurately in advance to the rater, before he visits the college for evaluation. (See Appendix 'D' for the proforma.)
3. Evaluation of Scales

Steps followed in the evaluation of scales are briefly given below.

3.1 Selection of Sample

Out of 64 Colleges of Education in Karnataka, 40 colleges were selected for study by using proportionate stratified random sampling technique. Regional College of Education Institute of Correspondence and Continuing B.Ed. course, evening colleges and Hindi medium B.Ed. colleges were not considered for sampling.

3.2 Collection of Data

Out of 40 Colleges of Education selected for sample, only 30 colleges of different universities sent back filled in proforma.

Table 5.1 : Total No. of Colleges, No. of Colleges Selected for Sample and No. of Colleges Sent Filled-in Proforma

<table>
<thead>
<tr>
<th>Universities</th>
<th>Govt./Uni</th>
<th>Pr.aided</th>
<th>Pr.unaided</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore</td>
<td>4 3 1 15 10 4 19 13 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulbarga</td>
<td>4 2 - 2 1 18 11 11 24 14 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karnatak</td>
<td>4 2 - 2 1 18 11 11 24 14 12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3 Determination of Inter-rater Reliability

Two raters (experienced teacher educators) independently rated all the 30 Colleges of Education on the basis of data gathered through proforma and by following the guidelines given in the manual. This was done to ascertain the extent of agreement in the ratings of two different raters.

It may also be noted here that the raters visited a few Colleges of Education to cross check the supplied data and found that there was no glaring gap between the data and observation.
3.3.1 Inter-rater Reliability for the Entire Tool

Product moment co-efficient of correlation technique was used in determining the inter-rater reliability and it is found that the value obtained was 0.94, which is quite significant at 0.05 level. Therefore the entire tool prepared has quite satisfactory inter-rater reliability.

3.3.2 Inter-rater Reliabilities of Seven Scales

The same product moment co-efficient correlation technique was used to determine the inter-rater reliability of each scale and it is found that all the seven scales have quite satisfactory inter-rater reliabilities.

Table 5.2: Inter-rater reliabilities of seven scales and their significance at 0.05 level are given in the table.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Co-efficient of inter-rater reliabilities</th>
<th>Significance at 0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raters 1 &amp; 2</td>
<td>Raters 1 &amp; 3</td>
</tr>
<tr>
<td>College plant</td>
<td>0.85</td>
<td>0.97</td>
</tr>
<tr>
<td>College administration</td>
<td>0.93</td>
<td>0.91</td>
</tr>
<tr>
<td>Teaching faculty</td>
<td>0.90</td>
<td>0.98</td>
</tr>
<tr>
<td>Practice teaching</td>
<td>0.90</td>
<td>0.65</td>
</tr>
<tr>
<td>Co Curricular activities</td>
<td>0.68</td>
<td>0.94</td>
</tr>
<tr>
<td>Evaluation procedures and techniques</td>
<td>0.84</td>
<td>0.71</td>
</tr>
<tr>
<td>Innovations and Expts.</td>
<td>0.85</td>
<td>0.78</td>
</tr>
</tbody>
</table>
3.3.3 Intra Reliabilities of the Seven Scales and the Entire Tool

Using split half method, Intra reliabilities of the seven scales and the entire tool were computed. The results are given in the following table.

Table 5.3: Intra Reliabilities of the Seven Scales and the Entire Tool

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Coefficient of intra reliability</th>
<th>Significance at 0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>College plant</td>
<td>0.890</td>
<td>Yes</td>
</tr>
<tr>
<td>College administration</td>
<td>0.365</td>
<td>&quot;</td>
</tr>
<tr>
<td>Teaching faculty</td>
<td>0.857</td>
<td>&quot;</td>
</tr>
<tr>
<td>Practice teaching</td>
<td>0.726</td>
<td>&quot;</td>
</tr>
<tr>
<td>Co-curricular activities</td>
<td>0.400</td>
<td>&quot;</td>
</tr>
<tr>
<td>Evaluation Procedures and techniques</td>
<td>0.746</td>
<td>&quot;</td>
</tr>
<tr>
<td>Innovations and Expts.</td>
<td>0.765</td>
<td>&quot;</td>
</tr>
<tr>
<td>Entire tool</td>
<td>0.915</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

3.4 Determination of Validity

3.4.1 Content Validity

The final tool consisting of seven scales, manual of procedures and guidelines and the proforma for the supply of advance data were given to five experienced teacher educators to go through them and give their candid opinion about the scales on 5 point scale.
From the opinion expressed by the teacher educators, it is evident that the scales, manual and proforma are objective and have content validity.

3.4.2 Concurrent Validity

Mann-Whitney non-parametric statistical technique was used to test the concurrent validity i.e., of the entire scale and the seven sub-scales to test if the scales discriminate 'good' and 'poor' colleges decided on some external criterion (established opinion of experienced teacher educators).

The test revealed that the scales have concurrent validity.

3.5 Practicability of the Tool

For this purpose an opinionnaire covering (1) need for training in using the scale, (2) time required for using the scale was prepared and an interview was conducted with a few experienced teacher educators.

It is found from their opinion that:

1. There is no need for extensive/intensive training for the users of the scale. A careful study of the manual helps the
rater use the scale objectively to evaluate the functioning of college of education.

ii. Functioning of colleges could be evaluated in a period of 2-3 days.

As such the tool is practicable.

4. Conclusions

Based on the findings of the study, the following conclusion could be drawn:

The scales prepared by the investigator to evaluate functioning of Colleges of Education in Karnataka are objective, valid, reliable and practicable.

5. Implications

The findings have some important implications.

They are:

i. The tool presents an overall picture of the college and their activities and is helpful for evaluating its functioning.

ii. Gives guidance to the college management, principal and teacher educators and to all concerned for the improvement of the college.
iii. Fulfills the requirements of the academic as well as general aspects of the college.

iv. Acts as a pivotal instrument in establishing and publishing the standards by which the 'Accreditation Council' to be set up as per NPE 1986, judges the quality of a College of Education.

v. Gives guidelines to U.G.C., University, LIC, NCERT, SCERT, NCTE and all those concerned for the improvement of teacher education.

vi. Enables the financial agencies to judge and provide the quantum of assistance to be given.

vii. Helps in monitoring the mushroom growth of teacher education colleges.

6. Suggestions for Further Research

While conducting the study, a need for undertaking a few specific research studies relating to the field was felt. The suggestions for such studies are enumerated below:

i. The study may be conducted at the national level and it may also be extended to selected States.
ii. The study may be conducted involving Regional Colleges of Education.

iii. An effort may be made to prepare scales on the same lines pertaining to primary teacher education institutions, physical education colleges and other professional, technical and vocational courses.

iv. Norms - region wise, state wise, management wise, etc. be established with the use of the scale developed.

v. A factorial study of the entire scale be made.