

CHAPTER V

FINDINGS AND DISCUSSION

5.1 Introduction

After having presented the data analysis and data interpretation, the present chapter focuses on giving a comprehensive and elaborative picture of the scenario that emerged from the process done in the previous chapters. The present chapter provides the reader, a gist of the study, through major findings followed by discussion and conclusion. The recommendations from the study and further areas of research in this field of Performance Appraisal are also described in the chapter.

5.2 Major Findings

The objective wise major findings that emerged from the present study were:

5.2.1 Findings with respect to Objective 1:

The first objective of the study was, “To develop Performance Appraisal System (PAS) for Teacher Educators by Self, Student-teachers Peers, and Head.”

- ❑ A comprehensive Performance Appraisal System (PAS) was developed by covering different dimensions of performance related to Teacher Educator exclusively for the Teacher Education Institutions.
- ❑ This comprehensive PAS includes Tool A—‘Classroom Teaching-Learning Based Performance Appraisal Scale’, Tool B—Information Schedule, ‘Tool C—Comprehensive Tool for Performance Appraisal’ along with the Feedback.
- ❑ Scoring key was developed for Tool A and Tool C to practice objective appraisal (Appendix F, Appendix G and Appendix H).
- ❑ Weightage was determined for Category A, Category B and Category C with the help of experts for Calculating CPAS (Appendix H)

5.2.2 Findings with respect to Objective 2:

The second objective of the study was, “To measure the performance of teacher educator through PAS by a. Self b. Student-teachers c. Peers and d. Head”.

For the convenience of the analysis, this objective was categorized into sub-objectives — 2.1, 2.2, 2.3, 2.4. and 2.5. The *Classroom Teaching-Learning Based Performance Appraisal Score* (CTLBPAS) calculated from the Tool—A was used for draw findings under Objective 2.

5.2.2.1 Finding under Objective 2.1 and 2.2:

The objective 2.1 of the study was, “To compare the Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators as assessed by Self, Student-teachers, Peers and Head, before the feedback was given.” and

The objective 2.2 of the study was, “To compare the Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators as assessed by Self, Student-teachers, Peers and Head, after the feedback was given.”

The findings with respect to these two objectives were:

- ❑ Before the Feedback was given, the mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators by Student-teacher, Peers Self and Head was found to be 6.4205, 7.059, 7.2455 and 7.4114 respectively.
- ❑ Performance Appraisal Scores of Teacher Educators was dependent of the assessors Self, Student-teachers, Peers and Head.
- ❑ Before the feedback was given, out of four groups of assessors three groups viz. Peer, Self and Head were found homogeneous on assessing the performance of the teacher educators. While the Student-teachers having a different opinion about the performance of the Teacher educators on the Classroom Teaching-Learning based Performance Appraisal.

Thus, Student-teachers play important role in assessing Teacher Educators.

- ❑ After the feedback was given, the mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators by Student-teacher, Peers, Self and Head was found to be 7.5045, 7.1182, 7.4773 and 7.0682 respectively.
- ❑ After the Feedback was given, all the performance assessors Student-Teachers, Peer, Self and Head were found homogeneous on assessing the performance of the teacher educators. Therefore, after the feedback was given the Performance Appraisal Scores of Teacher Educators as assessed by Self, Student-teachers, Peers and Head were Homogeneous i.e. consistent, leading to reliability of the scores.

Conclusively, before giving the feedback all stakeholder assessors were of different opinion (heterogeneous) about the performance of the teacher educators. But after giving the feedback, all stakeholder assessors were homogenous about the performance of the teacher educators i.e. the consistency of Performance appraisal scores across Self, Student-teachers, Peers and Head was observed after the Feedback was given to teacher educators.

5.2.2.2 Findings under Objective 2.3

The objective 2.3 of the study was, “To compare the Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators with respect to Self, Student-teachers, Peers and Head on before and after the feedback was given.” The findings with respect to this objective were as follows

- ❑ The mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) as assessed by the student teachers after giving feedback was significantly more than that of before feedback was given. Thus, it can be elicited that the teacher educators’ classroom teaching-learning based performance was improved after the feedback was given as assessed by the student-teachers.
- ❑ The Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) as assessed by the peers before or after giving feedback was not makes any difference. Thus, it can be elicited that the teacher educators’ classroom teaching-learning based performance was not improved after the feedback was given as assessed by the peers.
- ❑ The Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) as assessed by self, on after giving feedback was significantly more than that of before feedback was given. Thus, it can be elicited that the teacher educators’ classroom teaching-learning based performance was enhanced after the feedback was given, as assessed by Teacher-Educators themselves.
- ❑ The Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) as assessed by the Head before giving feedback was more than that of after feedback was given. Thus, it can be elicited that the teacher educators’ classroom teaching-learning based performance was decreased after the feedback was given, as assessed by the Head.

Conclusively, it can be inferred that the Performance of the Teacher Educators was enhanced, after the feedback was given to them, as assessed by the Student-teachers, Peers and Teacher Educator themselves. But from the Head's point of view the performance was decreased, on giving the feedback.

5.2.2.3 Findings under Objective 2.4:

The objective 2.4 of the study was, "To compare the Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of Teacher Educators for Different Components of Teaching-Learning, before and after the feedback was given." The findings with respect to this objective were as follows:

- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on 'Classroom Management' Component after giving feedback was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the 'Classroom Management' component was improved, after the feedback was given.
- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on 'Feedback' Component after giving feedback was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the 'Feedback' component was improved, after the feedback was given.
- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on 'Communication Skill' Component after giving feedback was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the 'Communication' component was improved, after the feedback was given.
- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on 'Interpersonal Relationship' Component after giving feedback was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the 'Interpersonal Relationship' component was improved, after the feedback was given.
- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on 'Pedagogic Skills' Component after giving feedback

was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the 'Pedagogic Skills' component was improved, after the feedback was given.

- ❑ The Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) on all Components after giving feedback was more than that of before feedback, thus, it can be elicited that the teacher educators' performance related to the all components were improved, after the feedback was given.

Conclusively, it can be inferred that, the feedback given by Self, Student-teachers, Peers and Head helps in enhancing the performance of the teacher educators of different Teacher Education Institutions of Vadodara District. Thus, there was a significant positive effect of the feedback on the performance of the teacher educators with respect to each of the components and further to the overall performance of the teacher educators.

5.2.2.4 Findings under Objective 2.5:

The objective 2.5 of the study was, "To compare the Teacher Educators' Mean Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) with respect to the different subjects they teach." The finding with respect to this objective were as follows

- ❑ The Teacher Educators' performance on different subjects which they teach was not significantly different, before the feedback was provided to them.

Thus, the performance of the teacher educators teaching Economics–Accountancy–Business Organization and Management, English, Gujarati, Hindi, Sanskrit, Science-Math and Social Science were found homogeneous, before the feedback was given.

- ❑ The Teacher educators' performance on different subjects which they teach was found significantly different, after the feedback was provided to them. After giving feedback to Teacher Educators, the
 - Performance of the teacher educators teaching Science/ Mathematics was better than the performance of the teacher educators teaching Economics/ Accountancy/ Business Organization Management.
 - Performance of the teacher educators teaching Science/ Mathematics was better than the performance of the teacher educators teaching English.
 - Performance of the teacher educators teaching Sanskrit was better than the performance of the teacher educators teaching English.

- Performance of the teacher educators teaching Science/ Mathematics was better than the performance of the teacher educators teaching Gujarati.
 - Performance of the teacher educators teaching Social Science was better than the performance of the teacher educators teaching Gujarati.
 - Performance of the teacher educators teaching Science/ Mathematics was better than the performance of the teacher educators teaching Hindi.
- While looking into the hunch, which subject Teacher educators were benefited from the feedback, the findings were as follows.
- The performance of the Teacher Educators teaching Economics-Accountancy Business Organization Management subject was independent of the feedback i.e. there was no effect of feedback on the performance of the teacher Educators teaching Economics-Accountancy -Business Organization Management subject.
 - The performance of the Teacher Educators teaching English subject was independent of the feedback i.e. there was no effect of feedback on the performance of the teacher Educators teaching English subject.
 - The performance of the Teacher Educators teaching Gujarati subject was independent of the feedback i.e. there was no effect of feedback on the performance of the teacher Educators teaching Gujarati subject.
 - The performance of the Teacher Educators teaching Hindi subject was dependent of the feedback. i.e. there was significant effect of feedback on the performance of the teacher Educators teaching Hindi subject.
 - The performance of the Teacher Educators teaching Sanskrit subject was dependent of the feedback. i.e. there was significant effect of feedback on the performance of the teacher Educators teaching Sanskrit subject.
 - The performance of the Teacher Educators teaching Science-Math subject was dependent of the feedback. i.e. there was significant effect of feedback on the performance of the teacher Educators teaching Science-Math subject.
 - The Teacher Educators teaching Social Science subject was dependent of the feedback. i.e. there was significant effect of feedback on the performance of the teacher Educators teaching Social Science subject.

Conclusively, the Teacher Educators of the subjects Economics-Accountancy Business Organization Management, English and Gujarati were not benefited from the feedback,

whereas the teacher educators teaching Hindi, Sanskrit, Science-Math and Social Science subjects were significantly improved their performance on giving feedback. Overall, the performance of the Teacher Educators teaching different subjects was dependent of the feedback. i.e. Overall there was significant effect of feedback on the performance of the teacher Educators teaching different subjects.

5.2.3 Findings with Respect to Objective 3:

The third objective of the study was, “To study the measured performance of teacher educators with respect to demographic variables viz. Type of Institution, Experience, Stream, Gender, Performance Categories, Colleges, and Subjects”

Under this Objective, the composite score of the measured performance appraisal scores of the teacher educators were taken into consideration. The Table 4.13, depicts the methodology of calculating the Composite Performance Appraisal Score (CPAS). The Composite Performance Appraisal Score (CPAS) was calculated with appropriate weightage to all the three categories viz. Category A, Category B and Category C by using the formula given in Appendix H.

- ❑ Composite Performance Appraisal Scores (CPAS) of the teacher educators of Grant-in-aid institution were found to be greater than that of the Self Finance institutions’ Teacher Educators. There was significant effect of the Type of Institution on the performance appraisal of the teacher educators. Thus, Performance of the Teacher Educators is dependent on the Type of Institution.
- ❑ With Experience the Composite performance scores of the Teacher Educators also increased. Teaching-Experience of the teacher educators positively affects their performance significantly. Thus, Composite Performance of the Teacher Educators is dependent on the Teaching Experience.
 - Teacher educators having more than 20 years of experience were found more achiever of scores on Performance appraisal than other categories [(≥ 10 years & < 20 years), (≥ 5 years & < 10 years) and (< 5 years)] of teaching experience.
- ❑ Streams of the teacher educators do not significantly affect their Composite performance. So, Composite Performance Appraisal of Teacher Educators was found independent of Stream of Teacher Educators.

- ❑ Gender of the teacher educators do not affects their Composite performance significantly. So, Composite Performance Appraisal of Teacher Educators was found independent of Gender of Teacher Educators.
- ❑ Composite Performance of teacher educators was significantly different across different categories (Category A—Teaching-Learning & Evaluation, Category B— Research Publication & Guidance and Category C—Extension Institutional Growth & Community Development) of Performance Appraisal.
 - Mean performance score of Teacher educators on the Category C was more than the other two categories i.e. Category A and Category B. Thus, the Teacher educators had scored more in the category C as compare to the other categories. This means the teacher educators were focusing more on scoring in the Category C—Extension, Institutional Growth & Community Development rather than other two categories.
 - Performance of the Teacher Educators on Category A and Category C was found to be significantly different in favour of Category C. Thus, Teacher Educators were found performing more in Category C—Extension, Institutional Growth & Community Development rather than the Category A—Teaching-Learning & Evaluation.
 - Performance of the Teacher Educators on Category B and Category C was found to be significantly different in favour of Category C. Thus, Teacher Educators were found performing more in Category C—Extension, Institutional Growth & Community Development rather than the Category B— Research Publication & Guidance.
 - Performance of the Teacher Educators on Category A and Category B was not found to be significantly different. Thus, there was no difference in the performance of the Teacher Educators of Vadodara district on Category A— Teaching-Learning & Evaluation and Category B— Research Publication & Guidance.

Conclusively, the teacher educators of the Vadodara District were performing more on the Category C—Extension, Institutional Growth & Community Development rather than the other two categories of Category A—Teaching-Learning & Evaluation and Category B— Research Publication & Guidance.

- ❑ Composite Performance of the teacher educators was found to be significantly different with respect to different colleges.
 - It was found that performance of the Teacher educators of the Dabhoi B.Ed. College differs significantly from all the other teacher educators. It can also be elicited that the performance of the Teacher educators of the Grand-in-aid college i.e. Dabhoi B.Ed. College found significantly more than the Teacher educators of the Private B.Ed. Colleges.
- ❑ Composite Performance of the teacher educators was found independent of the Subjects they teach.

5.2.4 Findings with respect to Objective 4

The fourth objective of the study was “To study the correlation between Performance Appraisal Scores of the Teacher Educators and Student-teachers’ assessment of the Performance of the Teacher Educators.”

- ❑ No correlation was found between the Composite Performance Appraisal Scores (CPAS) of the self and CPAS of the Student-teachers’ assessment of the Performance of the teacher educators. Teacher educators and Student-teachers assessment of the Performance of the teacher educators were independent to one another.
- ❑ The difference was found in assessment made by student-teachers and Teacher educators.

In the following section a detail discussion of the findings emerged from the study in hand was presented. The discussion hereby is based on the Reviewed literature of present study, Objectives of the study, Objective wise analysis followed by findings of the study.

5.3 Discussion

The performance appraisal of the teachers at Higher Education level had been the crucial question of debate in the various commission and committees, in the post independent Indian Educational reforms. The University Education Commission (1952) came up with, on ethical grounds, the concerns for increasing the quality of education at the college and university level. The commission had undertaken the minimum qualifications issues and attracting the competent youths for teaching. At the same time the commission had also

attempted to regulate the teaching hours, lectures undertaken, working days, vacation time, etc. to bring the quality at higher education level.

In further development, Kothari Commission (1966) had recommended to appraise the teachers at regular interval of time. The anecdotal records and service book entries about the teacher's performance were made mandatory. The Head of the institution was being recommended to appraise the performance of teachers at the higher education level.

In 1986, National Policy of Education and also its Plan of Action (POA) had recommended for "Annual Performance Appraisal" of the teachers of educational institutions. In 1987, Malhotra Committee appointed for revision of salaries too stressed that teachers' performance should be evaluated by students and there should be compulsory annual submission of 'performance appraisal' (an assessment of the performance of teachers which would encourage their accountability).

In 1988, the UGC issued a notification regarding 'Accountability in Higher Education' for all the Universities that Self Appraisal Performance of the teachers is to be made mandatory as a requirement of Career Advancement Scheme (CAS) for the award of new pay scales and be implemented within a year.

Considering the recommendations of different commission and committees, NAAC's appraisal scheme for TEIs; Needs of Higher Education in general and teacher education in particular in the context of Quality Education and Emerging roles of Teacher Educators; the University Grants Commission (UGC), a statutory body with its duty such as, coordination, determination and maintenance of standards of Indian Higher Education is witnessing a shift in formulating an Objective, Reliable and Wholistic mechanism for appraising the performance of the teachers and other academic staff working in the Higher Education level. In the recent development into evaluation of teaching performance at the Higher education level in India, the UGC had come with "*Regulation on Minimum qualifications for Appointment of teachers and other Academic staff in Universities and Colleges and Measures for the maintenance of Standards in the Higher Education (2010)*" using the Academic Performance Indicator (API) and Performance Based Assessment System (PBAS). This made greater impact on performance of teachers at Indian higher education level in the last few years. These regulations were first of its kind in terms of Performance Based Appraisal System (PBAS) and Academic Performance Indicators (APIs). The subsequent amendments

in these regulations came in 2013, 2014 and 2016 were adding more to such mechanism for making this system of appraisal more comprehensive, simple and practical.

But this system of regulations for Appraising the Performance of a Teacher at Higher Education level has its own limitations and drawbacks with respect to the PBAS-API (2010). Appraising the performance of the teachers from diversified disciplines and fields with a single tool always questions the reliability and comprehensibility of the tool and the assessor itself. While analyzing these regulations, it was found that less attention was paid to the aspects of “Teaching Learning and Evaluation related activities” and “Co-curricular, Extension and Professional Development related activities” rather more attention was placed onto the “Research and Academic contribution” related activities. This not only makes the lopsided evaluation of the performance on the part of the teacher but also questions the holistic nature of the system itself. The Self Evaluative nature of the PBAS, Lack of Feedback Mechanism, Mushrooming of the Publication shops because of undue importance given to publications; Malpractice of paid Publications; Too much attention to the research rather than teaching; Non- Discriminative across Category A and Category B; Peer Evaluation neglected; Qualitative Aspects Ignored, more emphasis on Quantitative Aspects; Ignorance of Classroom based teaching; etc. were few issues with present form, structure and appraisal pattern in the PBAS –API (2010). Moreover, in the context of holistic nature of PBAS-API tool, teacher needs to be evaluated from different dimension which was lacking in the PBAS –API (2010). Also at the same time who should evaluate the performance of the teacher-educator? Whether it is the Students or teacher him/herself or Parents or Peers or Head or Society or All? How a performance appraisal tool can be holistic if it is not appraised by the stakeholders of Assessors? Also, at the same time not only assessing the performance of the teachers by stakeholders is important, but to communicate the performance feedback back to the Teachers is also essential; s that he/she can work on the positive areas and areas of Improvement to enhance his teaching effectiveness.

The lack of the tool for Performance based appraisal for a specific discipline is much needed whispers of the academia since long, which is less heard. Keeping in mind the aforesaid issues and problem with the present PBAS-API (2010), the present study was an attempt to listen those whispers in much empirical and detailed manner, for the field of Teacher Education *per se* by designing a *system* for appraising the performance of Teacher Educators. Where appraisal from different perspective (in terms of Peer, Self, Student

Teacher and Heads) is also been considered to develop Wholistic Performance Appraisal System.

The first objective of the study was, “To develop Performance Appraisal System (PAS) for teacher educator by Self, Student-Teachers, Peers and Head”. Studies such as Tharyani (1986), Singhal, (1990), Mishra, (1983), Subbarayan (1985), Deshpande (1991) & Balwankar (1984) were found at Higher Education level but those were describing particular traits or components of Teacher Educators’ performance rather than the holistic one. Kumar (2007) scale was prepared for university teachers but it contains teacher’s performance evaluation by Students only and was also not comprehensive enough or exclusive for Teacher Education. So, a System of Performance Appraisal for Teacher Educators was developed through the present study.

- ❑ The developed tool comprised of three parts containing all aspects of teacher educators’ performance with appraisal from all four stakeholders involved in system of teacher education along with the Feedback Mechanism. So, an attempt was made to give PAS as much exhaustive and exclusive enough for appraisal of Teacher Educators *per se*.
- ❑ Further, in one study Tagomori (1993), it was also found that the tools through which the teachers are evaluated are flawed. In this regard researcher had paid due attention to minimize flaws as much as researcher can by ensuring validity and reliability of tools. This was done using the opinions of the experts in the field of Education. (Appendix B). The Draft PAS was send repetitively to these experts and opinions were incorporated. PAS with scoring keys was sent for suggestion to the experts was confirmed after the satisfactory report of the experts.
- ❑ The developed final version of PAS was having three tools viz.
 - Tool A—Classroom Teaching-Learning Based Performance Appraisal Scale was developed by researcher, covers all aspects of classroom Teaching Learning related activities under broad five components namely Classroom Management, Feedback, Communication Skill, Interpersonal Relations and Pedagogical Skills. This Tool—A, provides the Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) for the classroom based teaching performance of a Teacher Educator.

- Tool B— Information Schedule, mainly focused on demographic information about teacher educators such as Name, Gender, Qualification, Type Of Institution in they are working, Stream, Experience in the Field and Performance Categories. This gives clear picture about effect of these variables on performance of teacher educators.
 - Tool C—Comprehensive Tool for Performance Appraisal, comprised of items related to Performance of Teacher educators on Research, Publication, Research Guidance, Extension Related Activities, Institutional Growth and Community Development Related Activities. Here, professional growth of teacher educator with community participation can be mapped out.
- ❑ Through conducting pilot study reliability and validity of the tool ensured. After conducting studies on Six different colleges, usability of tools was established.
 - ❑ Here, performances of Teacher Educators were assessed by four stakeholder assessors viz. Self, Peers, Student-teachers and Head of the institution, which itself gives reliability of the data in tool.

The second objective of the study was, “To study the Performance of Teacher Educator through *Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS)* by Self, Student-teachers, Peer and Head”. It was clear from Table 2.2 that, not a single study was carried out by approaching all the four assessors (Student-teachers, Peers, Self and Head) for appraising the performance of a Teacher Educator. Further, studies mentioned in table 2.2, reports that diversify appraisers brings significant effect on performance appraisal of teachers. So, researcher made an attempt to construct PAS for teacher educators involving Self, Peers, Head and Student-teacher.

- ❑ There wasn't any scheme found in reviewed literature where feedback given to the educators on their performance. In proposed 'Performance Appraisal System' feedback was given to the Teacher Educators. It showed positive impact on their performance improvement as well performance satisfaction. Since they have been provided with feedback, the performance of Teacher educators after giving feedback was significantly improves in all dimensions of teaching.
- ❑ The major finding of the study supports the idea of performance assessment by the more than one assessor. The feedback in term of the Classroom Teaching-Learning

Based Performance Appraisal Score (CTLBPAS) as assessed by the Student-Teachers, Peers and Self significantly improved the Performance of the Teacher Educators. Only exception lies with Head's appraisal, where performance was decreased in view of Head.

- ❑ Before giving the feedback, all stakeholder assessors were of different opinion (heterogeneous) about the performance of the teacher educators. But after giving the feedback, all stakeholder assessors were homogenous about the performance of the teacher educators. This supports that the current PAS was reliable, in terms of the Performance appraisal assessed by different Stakeholders and consistent scores were found.
- ❑ In appraising performance of Teacher Educator, student-teachers' appraisal report differ significantly from others viz. Self, Peers and Head. This altogether portrayed different picture.
 - As in studies of Mishra (1983), Subbarayan (1985), Deshpande (1991) and Thomas (2007); Self and student teachers have positive correlation in their responses related to classroom related activities.
 - Moreover, in studies of Sofat (1977) and Deshpande(1991), Self and Head rating differs greatly; and
 - In studies of Mishra (1983) and Subbarayan (1985) Self and Peers were at extreme different opinion about classroom teaching-learning related activities.
 - That shows change of trend in appraisal system with respect to appraisers' responses. In present study also, before the feedback was given, out of four groups of assessors Peer, Self and Head were found homogeneous on assessing the performance of the teacher educators. While the Student-teachers having a different opinion about the performance of the Teacher educators on the Classroom Teaching-Learning based Performance Appraisal.
 - The present study also supports that student-teacher plays an important role in appraising the performance of Teacher educators.
- ❑ The study also finds that the feedback given by Student-teachers, Peers, Self and Head helps in enhancing the performance of the teacher educators of different Teacher education institutions of Vadodara District on different components of the teaching viz. 'Classroom Management', 'Feedback', 'Communication Skill', 'Interpersonal

Relationship’ and ‘Pedagogic Skills’ components. On all the Components the Performance of the Teacher Educator enhanced due to the feedback provided. There was a significant positive effect of the feedback on the performance appraisal of the teacher educators with respect to each of the components and further to the overall performance of the teacher educators.

- ❑ The impact of this Feedback in terms of the performance assessment by the Assessors (Self, Peers, Head and Student-teacher) was also seen on the subjects too.
 - The Performance of the teacher educators teaching Science/ Mathematics was better than the performance of the teacher educators teaching Economics/ Accountancy/ Business Organization Management, Gujarati, Hindi and English;
 - Performance of teacher educators teaching Sanskrit was better than the performance of the teacher educators teaching English; and
 - the Performance of the teacher educators teaching Social Science was better than the performance of the teacher educators teaching English, after the feedback was provided to them
- ❑ The Teacher Educators of the subjects Economics-Accountancy-Business Organization & Management, English and Gujarati were not benefited from the feedback, whereas the teacher educators teaching Hindi, Sanskrit, Science-Math and Social Science subjects were significantly improved their performance on giving feedback.

This implies that the PAS enhances the Performance of the Teacher Educators, if Feedback is provided back to the teacher educators after the performance is assessed by the Group of Assessors.

The third objective of the study was, “To study the measured Composite Performance Appraisal Scores (CPAS) of teacher educators with respect to demographic variables viz. Type of Institution in which teacher educator working, Experience, Stream, Gender, Performance categories, Colleges and Subjects they teach”.

- ❑ The composite scores of each Teacher Educator were calculated to have clear idea about their overall performance. Many reviewed studies (Table 2.2) relied heavily on either counting teaching competencies, Research Publications or Extension independently, but from this study it was emerged that a Composite score on all the aspects of performance (Category A—Teaching-Learning & Evaluation, Category B—

Research Publication & Guidance and Category C—Extension Institutional Growth & Community Development) will give the complete picture about the performance of a teacher educator.

- In UGC's API based PBAS (2010) fails to provide a weightage to these three aspects in a consolidate manner. Only the third category of UGC's PBAS i.e. Research and Academic contribution was given more importance. As the other two categories were non-discriminative in nature as far as the scoring in these categories are given less weightage. Also at the same time least importance was given to the Classroom Based Teaching and Extension work.
- While going through the studies at the higher education level
 - Mishra (1983) finds feedback from different sources for teachers' performance showed improvement in the classroom teaching-learning situations in teacher training colleges.
 - Subbaryan (1985) studied self-concept and teachers' effectiveness from the self-evaluation and evaluation by students at post graduation level,
 - Deshpande (1991) evaluated teachers' performance for their effectiveness measurement at secondary school level and
 - Thomas (2007) conducted study where feedback was given by students on teachers' teaching and that will be then practiced by teacher in classroom.
 - All these studies encompassed different dimensions of Classroom teaching and feedback to teachers at different levels, moreover at higher education level studies were done. But, all three objectives of higher education i.e. (a) Teaching Learning and Evaluation, (b) Research and Academic contribution, and (c) Extension, Co-curricular and Professional development were not covered under these studies. But the current study was an attempt in this direction.
 - In present study the CPAS of each educator were calculated which was their overall performance in the area of teacher education at the higher education level. This CPAS is comprehensive enough at higher education level as it contains all the major categories viz. Category A—Teaching-Learning & Evaluation, Category B— Research Publication & Guidance and Category C—Extension Institutional Growth & Community Development.

- While giving weightage to different categories of performance for the calculation of the CPAS, the less weightage to the Category B— Research Publication & Guidance and Category C—Extension Institutional Growth & Community Development by the experts. The reasons were:
 - As the research and extension facilities are meager, especially, in the Private Teacher Education Institutions, so the performance scores in these areas will be negligible.
 - Not all the teacher educators are recognized guides for Doctoral research.
 - Not all the teacher educators were having Major and Minor Projects by funding agencies like UGC, ICSSR, NUEPA etc.
 - If equal weightage given to the Category A, Category B and Category C, then there might be less or no scores in the category B and Category C.
 - Teacher educators' score obtained in category A is mean result of all four stakeholders, whereas in category B and category C only self appraisal been done.
 - Prime goal of education system is to provide quality education and research work give support to that. To ensure prime goal teaching is important.
- Hence, weightage of 0.5 was allocated to this Category A for making a CPAS. Out of this 0.5 weightage, 80 percent score weightage was given to the Performance assessed by the Stakeholders (Assessors) and 20 percent weightage was given to the Work Load the teacher educator carries out in the institution. Category B—Research Publication & Guidance (B) and Category C—Extension Institutional Growth & Community Development (C) was given a weightage of 0.25 each.
 Thus, **Composite Performance Appraisal Score (CPAS)** = $0.5(0.8*a_1+0.2*a_2) +0.25*B+0.25*C$
- There was significant positive effect of the Type of Institution, Experience, Performance Assessment Categories, and College was found on the performance appraisal of the teacher educators.
 - From study it was found that Teacher Educators of Grant-in-aid colleges achieved high CPAS than Affiliated Colleges. It was found that performance of the Teacher educators of the Dabhoi B.Ed. College differs significantly from all the other teacher educators.

- Teacher Educators in the Grant-in-aid Colleges are directly receiving funds from the state Government, having government imbued salary structure, Leave rules and other service related benefits, so they are having more opportunity to grow professionally as compare to Private TEIs. As in Private affiliated TEIs there may be less scope of opportunities in terms of Salary, Leave rules and other benefits. Moreover, in affiliated private TEIs, the Teacher Educators worked under pressure of trustees, always over workload, less salary, less research culture etc like conditions may lower the performance of the Teacher educators of the private TEIs.
 - Obviously, more the experience more will be the performance as thumb rule was seen in the present study too. In Experience related comparison it was found that experience is the best teacher as more experienced person scored more on performance.
 - Mean performance score of Teacher educators on the Category C was more than the other two categories i.e. Category A and Category B. Thus, the Teacher educators had scored more in the category C as compare to the other categories. This means the teacher educators were focusing more on scoring in the Category C—Extension, Institutional Growth & Community Development rather than other two categories. This may be due to the meagre amount of resources provided to the Teacher educators of the Private TEIs for research related activities, No research culture, Less/no exposure for how to fetch the Major and Minor Research projects, Less/No Masters level courses (M.Ed.) or Doctoral Research Programs and Guide ship, etc..
- There was no effect of the Gender, Stream and Subject they teach was found on the Composite Performance Appraisal Score (CPAS) of the teacher educators was found.
- The Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) of the Teacher Educators of the subjects Economics-Accountancy Business Organization Management, English and Gujarati were not benefited from the feedback, whereas the teacher educators teaching Hindi, Sanskrit, Science-Math and Social Science subjects were significantly improved their Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) performance on giving feedback.

- Also the teacher Educators teaching Science-Mathematics subject was found significantly better performing over the performance of teacher educators teaching Economics/ Accountancy/ Business Organization Management, Gujarati, Hindi and English on Classroom Teaching-Learning Based Performance Appraisal Scores (CTLBPAS). But the Streams/Subjects do not positively affect Composite Performance Appraisal Score (CPAS).
- This leads to a confusing finding, as Subject was found to be significantly affecting the CTLBPAS across but not the CPAS. The reason could be poor performances of the Teacher educators on the Category B, which results into lowering down overall composite score for the teacher educators.

The fourth objective of the study was, “To study the correlation between Performance Appraisal Score of the Teacher educators and Student-teachers assessment of the Performance of the teacher educators.”

- ❑ From the analysis of fourth objective it was clear that there was no relation between teacher educators’ CPAS and score obtained by Student-teachers assessment of the Performance of the teacher educators.
- ❑ The reason of this may be the less weightage to the Student teacher’s Assessment of the performance of the teacher educator in the Composite Performance Appraisal Score.

The Composite Performance Appraisal Score (CPAS) formula $0.5(0.8*a_1+0.2*a_2) + 0.25*B + 0.25*C$, contains Performance assessed by the Stakeholders (a_1). This a_1 comes from the four different performance assessors i.e. Student teachers, Peers, Self and Head, each carries 0.2 weight. This means the student teachers’ assessment carries only 0.2 weight (25 percent in a_1) and 0.1(10 percent in CPAS). The rest 0.9 (90 percent in CPAS) was came from the rest of the components i.e. Peer’s assessment, Self’ assessment, Head’s assessment, Category B scores and Category C scores. This may happen that all the other components had nullified the impact of Student teacher’s Assessment of the performance of the teacher educator. Which results into the no correlation of the Student teacher’s Assessment of the performance of the teacher educator with overall CPAS of teacher educators.

- ❑ But as far as, the Classroom Teaching-Learning Based Performance Appraisal Score (CTLBPAS) for the classroom based teaching performance of a Teacher Educator was

concerned the feedback provided by the Student-teachers played a vital role, which was reported earlier under the findings of Objective 2.1, 2.2 and 2.3.

- ❑ Thus, the importance of the Student teachers assessment cannot be neglected. Their feedbacks were necessary for the process to improve their quality of instruction provided by the teacher educator in the classroom.

Analysis of these four objectives helped to reach at conclusion in the form of recommendation and suggestions at different level to achieve quality at higher education level and particular at teacher education.

5.4 Recommendations and Suggestions

Researcher undergo different studies related to performance, performance appraisal at different levels, performance indicators and appraisal of teachers by different perspectives and other general studies related to performance appraisal. These reviewed literature evoked researcher to study different aspects involved in performance appraisal of teacher educators and after the analysis of the study researcher came with few recommendations and suggestions for the future researchers, for teachers & research guides, for administrators, for policy makers and suggestions for the further studies and suggestion in general.

5.4.1 Major Recommendation

The study strongly recommends the following few points may be considered as recommendations:

- ❑ A single tool is not sufficient for catering to the performance appraisal needs, so there should be discipline wise comprehensive tool to appraise performance of the teachers at university level. The Performance Appraisal tool for the Teacher of Engineering, Social Science, Fine Arts, Teacher Education, Music, Physical Education etc. could be individually constructed and refined as per the needs and nature of the discipline. Also at the same time the Teachers working in the Public, Private and Semi Government institutions have differential opportunities for professional growth. A single tool for appraisal for the Performance of teacher in varied institutions will be wrong. So, deliberations should be made to make Discipline specific and Institutional Specific Performance Appraisal system.

- ❑ The present study strongly recommends Regular and continuous Feedback for the teacher educators in TEIs.
- ❑ The present study strongly recommends the appraisal should include different assessors. The appraisal of university teachers should not be based solely on self evaluation but Head, Peer and Student teachers' point of view should also be considered and should be part of appraisal system for multi dimensional view.
- ❑ In TEIs the Feedback mechanism should include all the stakeholders. The Feedback from Students, Peer, Self and Principals should be strengthening for the Holistic performance of Teacher educators. If Possible, feedback from the Parents and Members of the society could be added.
- ❑ The study strongly recommends the due importance should be given to Category A— Teaching-Learning & Evaluation and Category B— Category C—Extension Institutional Growth & Community related activities, which is neglected and undermined in the present form of PBAS API by UGC. . This aspect is the basic and most important for the teachers in the universities of India where their job revolves around tripartite aspects of — Teaching, Research and Extension.

5.4.2 For the Students and Researchers

- ❑ Students should actively take part in the performance appraisal of the Teachers with Objectivity and Honesty, after attending the class of Teacher Educators.
- ❑ Students' participation in the performance appraisal should be made mandatory.
- ❑ Research Scholars should realize importance of taking up studies in the area of Performance Appraisal at different levels of Education i.e. Primary, Secondary and Higher Education levels.

5.4.3 For Teachers & Research Guides:

- ❑ Teachers could help in evolving a Objective, Reliable and Transparent feedback to their peers so to enhance their professional competence by improving their performance and professional growth.
- ❑ Continuous Assessment and Feedback mechanism for the teachers should be followed in all institutions for more accurate results.

- ❑ Research Guide should encourage their Students/Research Scholars to take up studies in the area of Performance Appraisal at different levels of Education i.e. Primary, Secondary and Higher Education levels.
- ❑ Teacher should encourage their students to give a Fair and Objective Feedback on their teaching performance.
- ❑ After getting the feedback, duty of teacher lies in performing in those areas where one performing low and enhance those where one performing high.

5.4.4 For Administrators:

- ❑ First of all, Administrators should develop a system of appraising the performance of the teachers and students. For the appraising the performance of the teachers the tools of the present study can be utilized in TEIs.
- ❑ Administrators should develop a system to get feedback from all the possible stakeholders of the Institution so as to enhance Quality of Education in the Institution.
- ❑ After every appraisal, Feedback should be discussed individually or at the staff meeting to overcome the shortcoming of the teachers in Teaching, Evaluation and Classroom Management and in any other areas.
- ❑ The overall Organizational Climate should be assessed and the contribution of the individual faculty member should be evaluated in building Organizational Climate.
- ❑ TEIs' Administrators should encourage a Research Climate in their respective institutions as from the present study it was elicited that the scores in the Category B— was not of that much satisfaction.
- ❑ Administrators should encourage their fellow colleagues to bring Major/ Minor projects, Organize Seminars/Conferences etc.
- ❑ Administrators should encourage their colleagues to attend Seminar, Workshops, Conferences, Long/Short term courses, Orientation/Refresher courses, Winter/Summer schools etc. and the importance of the same should be informed to the Management of the Institution so as to make a healthy Research climate in the Institution.
- ❑ Administrators should discourage the Destructive/Cut-throat competition among their colleagues and encourage faculty members for healthy competition for Performance.

- ❑ Administrators should make their fellow colleagues to realize the importance of Paperwork and Documentation of different activities carried out by them.

5.4.5 For Policy Makers:

- ❑ Current form of API based PBAS should be more refined as per the suggestions of this and other researches.
- ❑ More research should be taken up in the area of the Performance Appraisal and the recommendation of the them should be given weightage in the forthcoming form of API based PBAS.
- ❑ Differential weightage on different categories of PAS for the Teacher Educators working in Government, Semi-Government and Private TEIs could be planned in the policy.
- ❑ Discipline specific and Institution specific PAS should be developed rather than general PAS for all disciplines.
- ❑ Orientation courses for the better understanding of the API based PBAS should be conducted for the Private and Semi Government Institutions for the better understanding of the needs and implementation mechanism of the Performance Appraisal.
- ❑ Research facilities at Private Teacher Education Institutions should be enhanced for Wholistic performance.
- ❑ Enrichment and training should be provided to the Teacher Educators of Private institution to strengthen their research base.
- ❑ Upper boundary should be fixed for the institution in publishing the book/journal and bringing ISBN/ISSN for the same to maintain quality at Higher Education and Research level.
- ❑ A mechanism should be framed to make a check on the mushrooming of the publication shops.
- ❑ Items related to citing students' progress in terms of Behavioral, Emotional and Spiritual change should also be given place in the PBAS.
- ❑ Extension activities of diversified nature like Community based work or Environment based work, etc. should also be considered in PAS scores.

5.5 Suggestions for the Further Research

Researcher felt, on following topics and dimensions, further studies can be taken up:

- ❑ Study on Development of the Performance Appraisal System for other disciplines like Fine Arts, Engineering, Management, Medicine etc. can be undertaken and effectiveness can be studied.
- ❑ The present research was undertaken with the demographical variables viz. Type of Institution, Experience, Stream, Gender, Performance categories, Colleges and Subjects they teach. Some more variables like Organizational Climate, Leadership Styles, Management Types, and Autonomy of Institution etc may affect positively or adversely on Teacher Performance. Deliberations can be made to incorporate these variables in making system of Performance Appraisal so impact of these variables can be studied.
- ❑ Difficulties of Teacher Educators in Private Teacher Education Institution regard to PAS can be studied.
- ❑ Comparative study of Performance of the Teacher Educators of Public, Private and Semi Government Teacher Education Institutions can be studied.
- ❑ The present research was undertaken with the Education Discipline. A comparative survey of the Performance of Teachers at the Higher education Level cutting across all the disciplines can be taken up.
- ❑ There can be generalized study on Students' feedback on Teacher Educators Performance with large sample.
- ❑ In the present research the feedback from Student-teachers, Peers, Self and Head was undertaken. Studies on Performance appraisal where feedback is collected from Parents and Members of the society could be undertaken.
- ❑ Study on how much weightage to be given to three aspect of the performance appraisal viz. Category A—Teaching-Learning & Evaluation, Category B— Research Publication & Guidance and Category C—Extension Institutional Growth & Community can be undertaken.
- ❑ Study of the Performance Appraisal of Teacher Educators of all the universities of Gujarat can be undertaken.
- ❑ Study of the Performance Appraisal of Teacher Educators of all the universities of India can be undertaken.

- ❑ Development and Effectiveness of Computer Assisted Performance Monitoring and Assessment system can be undertaken as study.

5.6 Conclusion

Present study is an effort for strengthening Performance based Appraisal system of the Teacher Educators in the Teacher Education Institutions of Baroda District in particular and other TEIs in general by developing the same. The study contemplated that a single tool of Performance Appraisal is not sufficient for all the disciplines of the Higher Education. The present research had made an effort by developing a System of Performance Appraisal for the Teacher Educators. Also at the same time researcher would like to underline that the nature of the performance of teacher is varied in the type of the institution where one works. Public, Private or Semi-Government institutions are having own criteria of performance. This should be kept in mind, which all the Institutions are not of the same potential in terms of the Infrastructure, Human Resource, Ancillary Services, Research Climate, Service rules implementation and Opportunities to grow. Einstein rightly said, “Everybody is a Genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.” So, deliberations should be made for Discipline specific and Institutional specific Performance Appraisal System.

From the study it comes out clear that the feedback by the different assessor groups were found to be effective in improving the performance of a Teacher Educator in the classroom. The collaborative feedback provided by the Student-teachers, Peers, Teacher Educator him/herself and Head of the Institution, somehow, significantly improves the overall performance of the Teacher Educators. This important aspect of Team Performance Appraisal can be utilized in the forthcoming forms of PBAS-API by the UGC. Although, recent PBAS mechanism had came up with the Student’s feedback for the teacher but the lack of tool in this area can be fulfilled by current piece of research.

The present research had come up with a tool for assessing the performance of the Teacher Educator in the classroom by all the potential stakeholders. Hence empirical and detailed manner feedback provided the basic concept of PBAS and vital need for strengthening ‘feedback mechanism’ in Performance based Appraisal System. The feedback provided during the appraisal process is essential to inform all those involved in the institution about what should be done in order to map the way forward. Then, the role of

different appraisers such as Student-teachers, Self, Peers and Head will become crucial. This will improve the effectiveness of teaching and students' learning and, ultimately, the Quality of Education. Appraisal here is used as a system to influence and empower Teacher Educators' behaviour in order to increase Quality in Education and Effectiveness in performance. The Performance Appraisal System with feedback mechanism, go long way in making Teacher Educator's Appraisal more relevant and meaningful for their own performance strengthening and monitoring.