COMPETENCY MAPPING OF TEACHERS IN TERTIARY EDUCATION

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BONAFIDE CERTIFICATE

Certified that the project titled "Competency Mapping of Teachers in Tertiary Education" is the bonafide work of Ms. V.Raji Sugumar, who carried out the study under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on her or any other candidate.

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ABSTRACT

Competency of teachers assumes a lot of importance in the era of knowledge society who are expected to produce students of high calibre. In India however competency development and mapping still remains an unexplored process. Not much study has been done on competency mapping in higher education sector, thus the present study is ventured upon. The study was carried out in Bharathidasan Govt. College for Women, an Accredited Autonomous College affiliated to Pondicherry University, which is the first and the biggest college in Puducherry. A self administered questionnaire was developed to assess the personal competency (EQ) and academic competencies. The sample size was 110. Results were statistically analysed wherever needed. Mean, percentages and illustrations were sparingly used. The EQ level was good ranging between 23 and 63 which is indicative of 2^{nd} and 1^{st} level EQ with good interpersonal relationship. The competency level was higher than the required level of 3. The competency gap was negligible indicating a higher performance level. The factor analysis pooled three factors with highest priority to teacher-taught issues like traditional notion of teaching followed by gaining computer literacy and updating subject knowledge, and finally the priority to publication, participation in academic events. The constraints were too many. To reap the fullest potential from a teacher good motivation, conducive work atmosphere, and recognition of potentials was felt necessary by most of the teachers.

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LIST OF ABBREVIATIONS AND ACRONYMS

BC - Backward Class

CABE - Central Advisory Board of Education

CBSE - Central Board of Secondary Education

CCL - Current Competency Level

CG - Competency Gap

CGPA - Cumulative Grade Point Average

EI - Emotional Intelligence

EQ - Emotional Quotient

FC - Forward Caste

FDP - Faculty Development Programme

HOD - Head of Department

M.Phil. - Master of Philosophy

MHRD - Ministry of Human Resource Development

NAAC - National Accreditation and Assessment Council

NKC - National Knowledge Commission

NSS - National Social Service

NCC - National Cadet Corps

NPE - National Policy of Education

PG - Post Graduate

Ph.D - Doctorate of Philosophy

RCL - Required Competency Level

SC - Schedule Caste

SEV - Socio-Economic Variables

UG - Under Graduate

UGC - University Grants Commission

UPSC - Union Public Service Commission

VS - Versus

CHAPTER 1

INTRODUCTION

1.1 Introduction and background of the Study

With liberalization and globalization of economic activities, the need to develop skilled human resources of a high caliber is imperative. Consequently, the demand for internationally acceptable standards in tertiary education is evident.

India is one of the countries with the largest educational system. Tertiary Education in the modern sense was introduced in India in 1857. Since then our degree education system has been going around in circles plodding the same beaten track. The only change that it has undergone is in its size. Over the last twenty five years we find an approximately fifteen fold increase in the number of students, teachers and colleges and in the expenditure incurred. It is true that when a public activity like education goes through a phase of rapid expansion quality tends to get neglected. In fact, there has been an almost total systemic neglect of quality in college education. A great deal has been written about the prevailing shortcomings and defects of our system. No amount of improvement in material resources can bring about quality in education unless the attitude and mindsets are changed. A lukewarm approach at the college level can cause irreparable damage to the task of nation building at a time when the whole world has come under one common economic world order (Pillai and Vallatharai, 2003).

Ever since a Central Advisory Board of Education (CABE) committee was formed in 2005 to draft the Right to Education Bill, legitimate concerns have been expressed as to the extent to which the proposed law would be able to foster education that would promote equality and social integration across class, caste and gender barriers.

Accordingly NAAC (2003), has voiced that:

> *"….If we are to benefit from the huge investment that we have made in education, our teachers must be enabled and motivated to commit themselves, personally and professionally, to the all-round development of students for efficiency and effectiveness in providing quality education"*

Competency of teachers assumes a lot of importance in this context. In India however competency development and mapping still remains an unexplored process. During the past decade, there has been a growing interest in learning and competency-based systems in various areas of education, training, and professional development, especially in higher education. Competency-based education and assessment initiatives have been insisted by the UGC.

There has been a constant reminder to update teacher potential. This has become a challenging issue especially after the announcement of 6^{th} pay commission and the NAAC's Cumulative Grade Point Average (CGPA) for assessment. The stalwarts of higher education insist that the institutions of higher learning should foster a closer relationship between the "world of skilled work" and the "world of competent-learning". These demands for competency mapping of teachers which will have a telling impact on strengthening students' competencies.

As the saying goes "Destiny of a nation is determined in the classroom", it is time to realize that the destiny of the classroom is determined by the teacher" thus imperative is the teacher competency.

The concept of competencies originated from David McClelland's ground breaking article, "Testing for competence rather than intelligence" the article launched the competency movement in industrial psychology. He concluded, on the basis of review of studies that traditional academic aptitude and knowledge content tests, as well as school grader and credentials did not predict success either in job/life and were generally biased against the lower socio-economic sections of society.

This led McClelland to ask what predicted success, if not intelligence! He started to look for research method as that would identify competency variables, which would predict job performance and were not influenced by factors, such as socio economic factors or race. He used criterion sample, a method that compare successful people with less successful in order to identify characteristics associated with success. These characteristics or competencies when present and demonstrated consistently to successful job out comes, led to varying definition of competency of which the most acceptable is the following:

> *" A competency can be defined as an underlying characteristic of an individual that is causally related to criterion referenced effective and or superior performance in a job or situation"*

Not much study has been done on competency mapping in higher education sector, thus the present study is ventured upon. Puducherry claim its pride for being the educational hub of south india, hence the study is to be carried out in Puducherry.

1.2 Operational definitions of the terms used in the study

- **Competency:** Competency refers to knowledge, skills, attitude that the teacher is expected to demonstrate in his/her career. In the present study selected domains like emotional intelligence, communication skill, computer literacy, and professional advancements will be assesed. Concepts like performance attributes, performance scores, self assessment, job performance are used as synonyms to competency and competency mapping.

- **Competency mapping:** Competency mapping is a process through which one assesses and determines one's strengths as an individual worker and in some cases, as part of an organization. It generally examines two areas: emotional intelligence or emotional quotient (EQ), and strengths of the individual in areas like team structure, leadership, and decision-making. In the present context it will cover EQ, basic competencies that a teacher should possess eg., communication skill, computer literacy etc.

- **Teachers in Tertiary Education:** In the present context it refers to the female and male college lecturers working in a government college for women in Puducherry. Terms like Higher education, institutions of higher learning, college education, degree college are used as a parallel connation for tertiary education.

1.3 Objectives of the study

- To map the level of selected competencies among the target group in comparison with the selected social, economic, demographic and cultural variables.

- To analyse the gap between expected and actual level of competencies

- To delineate details on the constraints in professional advancement and suggest strategies to improve the competency level

1.4 Scope of the study

This aspect of tertiary education is virtually an unstudied area as far as Puducherry is concerned. In fact there is a dearth of literature related to India on this area. Thus, this study will be a mighty contribution. Added to this it will bridge the gap by identifying the constraints in (i) knowledge enhancement; (ii) discharging the duties as a teacher, and in (iii) professional upgradation like carrying out research, publishing, participation in academic events and documenting the same which would pave way for necessary favourable action.

A lot is going on in recent times on the issue of competency mapping. A lot of resource is spent and consultants are invited to do competency mapping. Competency mapping is gaining much more importance and organizations are aware of having good human resources or putting the right people on right job.

Competency mapping is important and is an essential exercise. Every well managed institution should have well defined roles and list of competencies required to perform each role effectively. Such list should be used for recruitment, performance management, promotions, placements and training needs identification.

In performing or carrying out work, it is essential that the required job skills first be articulated. This information not only helps to identify individuals who have the matching skills for doing the work but also the skills that will enhance the successful performance of the work. Yet often to perform well, it is not enough just to have these skills. It is also critical to complement the skills with the necessary knowledge and attitudes. For e.g. the necessary knowledge will enable an individual to apply the right skills for any work situation that will arise while having the right attitude will motivate him to give his best efforts. These skills, knowledge and attitudes required for the work are usually collectively referred as competencies.

Competency mapping can play a significant role in recruitment and retaining people as it gives a more accurate analysis of the job requirements, the candidate's capability, of the difference between the two, and the development and training needs to bridge the gaps.

As far as individual's career aspirations are concerned, once the organization gives an employee the perspective of what is required from him to reach a particular position. It drives him to develop the competencies for the same. "Competencies enable individual to identify and articulate what they offer-regardless of the job they happen to have at the time so that their organization can see, value and utilize what capability is actually available.

1.5 Limitation of the study

This study was restricted only to one college. Only the most essential competencies were assessed. The assessment was made by self evaluation.

1.6 Plan of the report

The report consists of five chapters. Chapter 1, highlights the background of the study, its need, objectives, limitations thereby orienting the readers about the study. Chapter 2, reviews the most pertinent research literatures suitable for this study. Chapter 3, discusses the sequence of methodology adopted in the study. Chapter 4, elucidates the results obtained in table form and presents the interpretations and supplementary studies supporting or refuting the findings. Chapter 6, puts the entire content in a nutshell and suggests suggestion for future researchers.

CHAPTER 2

REVIEW OF LITERATURE

It is easy to take the practice of teaching for granted. Teaching is often misrepresented as being a simple matter of presenting information to students. Such a view underestimates what is required of both student and teacher. In reality, teaching and learning are complex social and cognitive processes, and educational practice is the subject of a thriving research literature.

The literature for the present study “Competency Mapping of Teachers in Tertiary Education” is discussed under the following heads:

2.1 Application of Competency Mapping in various fields

2.2 Research Gap

2.1 Application of Competency Mapping in various fields

2.1.1 Education

Savage and Briggs (1993), based on their study in USA reiterate that with the glaring exception of education, every profession in the United States that has a college degree as a prerequisite also requires the passage of an examination that measures the competency in skills and knowledge that define that profession. Thus, a CPA test would require an examinee to compare potential earnings of an IRA versus a municipal bond, whereas an examination in medicine would require future physicians to be able to monitor penicillin-sensitivity shock. Competency tests are necessary, relevant, and justifiably restrictive if professional standards are deemed important. These tests may be culturally biased if, by definition, bias signifies better performance on the average by one cultural group over another. Is it not logical that such "bias" is "proper" if satisfactory performance on a test is strongly correlated with competent performance in the profession? Needless to say, the social problem with such bias lies not with the examination, assuming that the exam is unbiased, but with the previous training and

overall preparation of the candidates. To cite a concrete example, if an examination proved African-American (or Hispanic, or Native American, or other minority) medical students to be better at diagnosing early-stage, curable cancer than their Anglo peers, should the examination be considered biased? Certainly not! The skill is prerequisite to successful medical practice. In this case the diagnosticians should retain the test and train the Anglo students to interpret more accurately vital signs and symptoms.

A Study done by Baartman et al., (2007) on evaluating assessment quality in competence-based education: A qualitative comparison of two frameworks observed that because learning and instruction are increasingly competence-based, the call for assessment methods to adequately determine competence is growing. Using just one single assessment method is not sufficient to determine competence acquisition. This article argues for Competence Assessment Programmes (CAPs), consisting of a combination of different assessment methods, including both traditional and new forms of assessment. To develop and evaluate CAPs, criteria to determine their quality are needed. Just as CAPs are combinations of traditional and new forms of assessment, criteria used to evaluate CAP quality should be derived from both psychometrics and edumetrics. A framework of 10 quality criteria for CAPs is presented, which is then compared to Messick's framework of construct validity. Results show that the 10-criterion framework partly overlaps with Messick's, but adds some important new criteria, which get a more prominent place in quality control issues in competence-based education.

Omare,C & Iyamu O.S (2006) based on their study “Assessment of the affective evaluation competencies of social studies teachers in secondary schools in Western Nigeria” reveal that nature and objectives of Social Studies in Nigerian Secondary schools indicate the affective orientation of the subject. Studies abound on the dominance of cognitive orientation to the teaching and evaluation of the subject in the schools, an indication that the curriculum is poorly implemented. This study assessed the affective evaluation competences of Social Studies teachers in western

Nigeria, using the observation methods and rating scale. It was found that the teachers' over-all affective evaluation competences were below the acceptable level and that professionally qualified non-graduate teachers demonstrated more competence than their graduate counterparts. The need to intensify the development of affective teaching skills in Social Studies teacher education was recommended.

Baartman et. Al., (2007) in their on “Determining the Quality of Competence Assessment Programs: A Self-Evaluation Procedure” observe that the assessment methods are changing, the way to determine their quality needs to be changed accordingly. This article argues for the use Competence Assessment Programs (CAPs), combinations of traditional tests and new assessment methods which involve both formative and summative assessments. To assist schools in evaluating their CAPs, a self-evaluation procedure was developed, based on 12 quality criteria for CAPs developed in earlier studies. A self-evaluation was chosen as it is increasingly used as an alternative to external evaluation. The CAP self-evaluation is carried out by a group of functionaries from the same school and comprises individual self-evaluations and a group interview. The CAP is rated on the 12 quality criteria and a piece of evidence is asked for to support these ratings. In this study, three functionaries from eight schools ($N = 24$) evaluated their CAP using the self-evaluation procedure. Results show that the group interview was very important as different perspectives on the CAP are assembled here into an overall picture of the CAP's quality. Schools seem to use mainly personal experiences to support their ratings and need to be supported in the process of carrying out a self-evaluation.

Akiba et al., (2007) in their study on “Teacher Quality, Opportunity Gap, and National Achievement in 46 Countries” reveal that the The 2003 Trends in International Mathematics and Science Study data from 46 countries showed that, although the national level of teacher quality in the United States was similar to the international average, the opportunity gap in students’ access to qualified teachers between students of high and low socioeconomic status (SES) was among the largest in the world. Cross-

national analyses revealed that the countries with better teacher quality produced higher mathematics achievement. However, larger opportunity gaps in access to qualified teachers did not predict larger achievement gaps between high-SES and low-SES students cross-nationally. These analyses provide empirical, cross-national evidence of the importance of investing in teacher quality for improving national achievement. National policies and practices related to improving teacher quality appear to be a promising area for future research to identify how other countries have achieved both excellence and equity in student achievement.

2.1.2 Corporate Houses

Zensar, has a behavioral competency model which is based on various job roles in the organization. The following is the process of implementation of competency mapping.

- Having defined the various job roles, a focused study was initiated where job role holders were interviewed on the critical incident method and the data of success-critical factors collated.
- The job roles and deliverables were finalized on the basis of the competencies derived from the data. This data was further analyzed, and on the basis of this competencies that had an impact on the job roles and deliverables were finalized.
- After identifying the competencies, a job analysis exercise was carried out where the importance level of every competency was ascertained before freezing the competency model.

L&T Infotech a PCMM Level 5 company has a successful competency based HR system. Recruitment, training, job rotation, succession planning and promotions all are defined by competency mapping. Nearly all our HR interventions are linked to competency. Competencies are enhanced through training and job rotation. He adds that all people who have gone through job rotation undergo a transformation and get a broader perspective of the company. For instance a person lacking in negotiation skills might be put in the sales or purchase department for a year to hone his skills in the area.

2.2 Research Gap

The system of higher education in India has expanded rapidly during the last sixty years. In spite of the built-in regulatory mechanisms that lead to satisfactory functioning of higher education institutions, there has been a significant increase in the number of institutions of higher education, which perhaps has resulted in the dilution of standards. To address the issue of quality, the National Policy on Education (NPE, 1986) and the Programme of Action (PoA, 1992) that spelt out strategic plans for the policies, advocated the establishment of an independent National Accreditation Body.

In India competency development and mapping still remains an unexplored process higher education despite the growing level of awareness. The underlying principle of competency mapping is to study if the require skill is present in a person to discharge the required task. However the issue is much more complex than it appears, and most institutions have been struggling to formulate the right framework for their organisation.

During the past decade, there has been a growing interest in learning and competency-based systems in various areas of education, training, and professional development, especially in higher education.1–3 Competency-based education and assessment initiatives have been completed in a number of health care and health management professions, including the Accreditation

In India, the institutions of higher education are facing many challenges and are undergoing significant changes from time to time. The need to expand the system of higher education, the impact of technology on the educational delivery, the increasing private participation in higher education and the impact of globalization (including liberal cross-border and trans-border educational imperatives), have necessitated such marked changes in the Indian higher education scenario. These changes and the consequent shift in values have been taken into cognizance by NAAC while formulating

the following core values for its accreditation framework. The research in these areas are very few in numbers and a lot more has to be researched in identifying the competencies, competency gap analysis and designing a module for training.

CHAPTER 3

METHODOLOGY

The methodology for the present study “Competency Mapping of Teachers in Tertiary Education” is discussed under the following heads:

3.1 Selection of location for study

3.2 Selection of samples

3.3 Type of data and selection of tools for the study

3.4 Conducting the study

3.5 Analysis of the study

3.1 Selection of location for study

The study was carried out among the teachers of Bharathidasan Govt. College for Women, Puducherry, an accredited autonomous college with B++ affiliated to Pondicherry University. Performance wise this college ranks first when compared to other colleges in the territory. Due to rapport established earlier and Puducherry being the place of residence of the researcher and this college being the place of work this institution is chosen. This college was established in the year 1968 was the first institution of higher education for women in this Union Territory and today it is the biggest institution for women housing 2334 students as on roll and 110 permanent teaching staff and 20 guest faculty with the student staff ratio of 21:1. The college offers 16 under graduate courses which include three vocational courses; two post graduate courses and two M.Phil programmes and three UGC sponsored add-on-courses under its Career Oriented Programmes.

3.2 Selection of samples

All the permanent teaching faculties of the college totaling to 110 were the respondents. Guest faculty members were eliminated as they was a delay in issuing the joining order for the academic year. The sampling was universal in the sense all the

teachers in pay roll were included. However there was a attrition rate of 17%. The reason was due to medical leave, paper valuation hence inability to reach them.

3.3 Type of data and selection of tools for the study

Primary data elicited by administering the questionnaire were the main contribution to the study. Secondary data from college records on performance appraisal were used to compare if need arises. The questionnaire was set to elicit details on personal and professional competency. It consisted of three parts covering 1. EQ scale, 2. Self- assessment tool covering various competencies like communication, computer literacy, curriculum development, evaluation etc., 3. personal details. The EQ scale was a readymade tool standardized by Disha Counselling Centre, Mumbai in 2006 meant for assessing interpersonal relationships among colleagues. Statements used to assess competencies were picked from the publications of MHRD, UGC, and NAAC. The questionnaire was structured in a descending order of suggestive and thought provoking questions in the 1st part and moving towards general questions in the last half of the questionnaire to make the filling-up less cumbersome.

3.4 Conducting the study

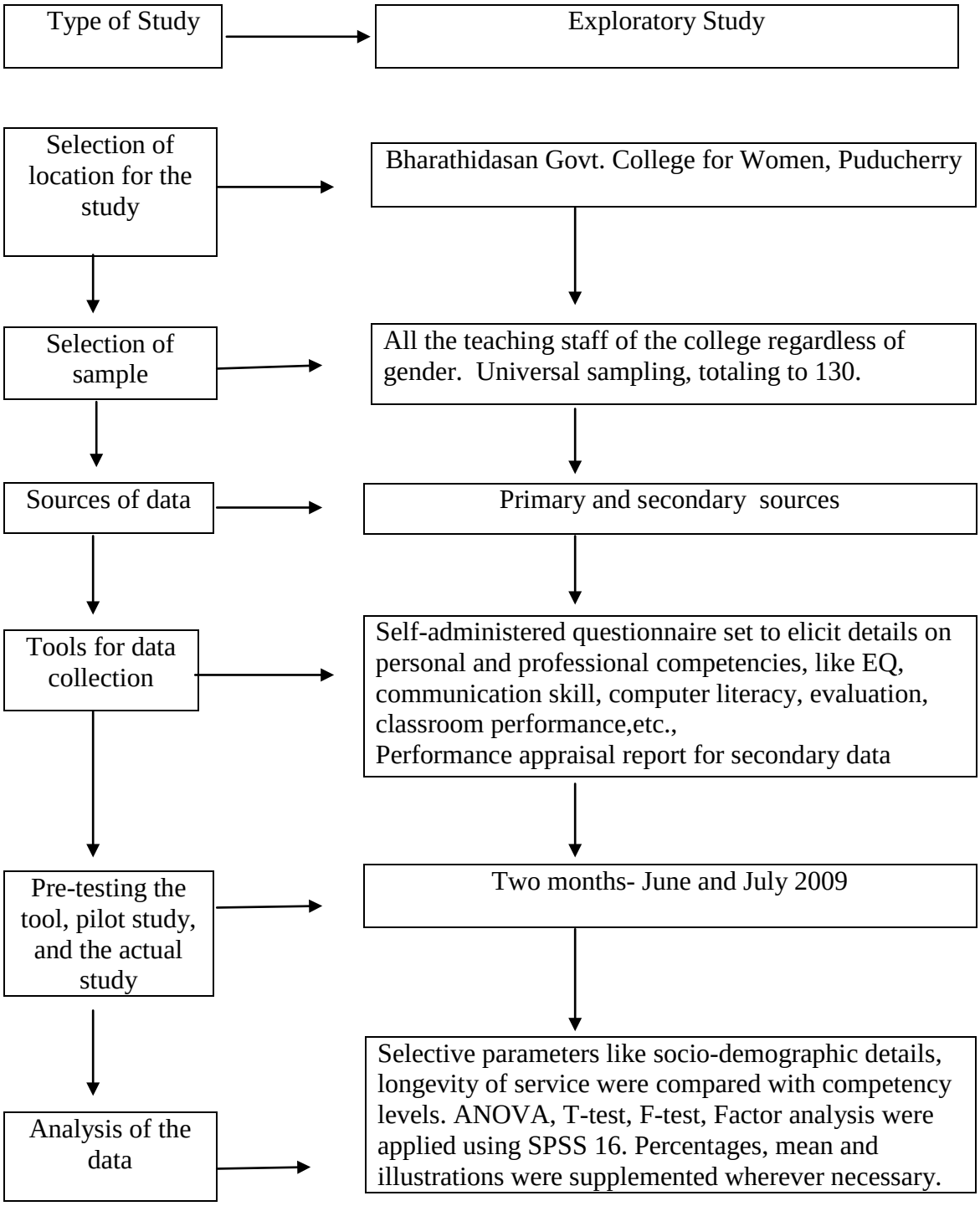
Pre-testing the tool was carried out and necessary modifications made accordingly. Distribution of questionnaire started on the 1st day of the college for this academic year the 25th June 2009. Until 9th July 2009, 81 questionnaires were received in fully filled form. The delay was due to superannuation of teachers, paper valuation, long leave etc.

3.5 Analysis of the study

Appropriate statistical tools (ANOVA), T-test, F-test, Factor analysis were applied to raw data using SPSS 16. Percentages and mean were used for basic interpretations. Illustrations were used to supplement the important findings.

Fig. 3.1 Project Protocol

Competency Mapping of Teachers in Tertiary Education



CHAPTER 4

RESULTS AND DISCUSSION

The results for the present study "Competency Mapping of Teachers in Tertiary Education" are discussed under the following heads:

4.1. Socio-economic profile of the teachers

4.2. Emotional quotient of the teachers in comparison with selected variables like longevity of service, type of school education/ higher education, medium of instruction, type of family, educational and employment status of the parents, age, gender, religion, department, etc

4.3. Academic competencies assessment in comparison with selected socio-economic variables

4.4. Comparing the EQ level with competency level

4.5. Identifying the factors that constitute the teachers inclination towards their profession –factor analysis

4.6. Gap analysis between expected and actual outcomes

4.6. Listing the constraints in fulfilling academic demands, and strategies to overcome them and improving the competencies.

4.1 Socio-economic profile of the teachers

Socio-economic variables speak of the human factors that constitute a group or a community or a habitat. In the present context the variables are used to study the competencies of teachers working in a selected college viz., Bharathidasan Govt. College for Women, Puducherry.Table 4.1 in the following page depicts the same.

Table 4.1 Socio-Economic Background of the Teachers

Domain	Number (N=81)	Percentage
Age		
33-42	29	35.8
43-52	39	48.2
53-62	13	16
Gender		
Female	50	61.7
Male	31	38.3
Mother tongue		
Tamil	64	79
Malayalam	5	6.2
Telugu	9	11.1
Other specify	3	3.7
Caste		
Forward (FC)	30	37
Backward (BC)	42	51.9
Scheduled (SC)	9	11.1
Religion		
Hindu	69	85.2
Christian	10	12.3
Muslim	2	2.5
Type of family		
Joint	42	51.9
Nuclear	39	48.1
Birth order		
First child	27	33.3
Middle child	37	45.7
Last child	17	21
Marital status		
Unmarried	5	6.2
Married	74	91.3
Widow/divorcee/separated	2	2.5
Department		
Arts & humanities	30	37.03
Science	31	38.27
Commerce	20	24.70
Highest degree possessed		
PG	3	3.71
MPhil	51	62.96
Ph.D	27	33.33

Additional qualification		
Yes	46	56.80
No	35	43.20
Computer Literacy		
Yes	33	40.75
No	48	59.25
Education of the parents		
Mother		
Illiterate	16	19.75
School	57	70.37
Degree	8	9.88
Father		
Illiterate	7	8.65
School	47	58.02
Degree	27	33.33
Employment status of parents		
Mother		
Employed	14	17.28
Unemployed	67	82.72
Father		
Employed	54	66.7
Unemployed	27	33.3

From the table 4.1 it is evident that more than 80 percent of the teachers were between the age group of 33 to 52 years which is considered to be the peak of physical, emotional and socially healthy. About three-fifths (62 %) were female teachers and the rest males. The selected college being a womens' college speaks of this number. Majority of them were Tamil speaking (79%) followed by Telugu speaking (11%) and Malayalam speaking (6%) and the rest Hindi or Urdu. Pondicherry Union Territory encompasses four districts of which one is dominated by Malayalam speaking community located in the coastal region of Kerala and the other one Yanam dominated by Telugu speaking community located in the coastal region of Andhra Pradesh. Caste wise classification showed that around 52 percent were from backward communities

followed by forward community (37%) and scheduled caste 11 percent. Pondicherry SC population is 16% of the total. Classification based on religion showed that 85 percent were Hindus, followed by Christians (12%) and Muslims (3%). Around 52 percent of teachers were from joint family and the rest from nuclear family. In the days when joint families are replaced by nuclear families at a rapid speed these results were heartening. However the marital distance among Pondicherrians is very less and thereby preserves the ethnicity. When the birth order of the teachers was computed about 46 percent were middle child, 33 percent first child and 21 percent last child. Marital status revealed that about 91 percent were married, 6 percent unmarried and a meagre 3 percent separated or divorced. The distribution of teachers across faculties revealed that there was equal distribution of teachers in science departments (38%) and 37 percent in arts and humanities departments and 25 percent in commerce department. In total the college has 7 science departments, 7 arts and humanities departments and 3 commerce departments. On assessing the highest qualification about 63 percent possessed M.Phil, 33 percent Ph.D and a meager 4 percent Masters Degree. About 57 percent possessed additional degrees or diploma in addition to eligible qualification. However, only 41 percent had workable knowledge of computers and had mail ids. When the education level of the parents were analysed a majority of them were literates and only a meager number were illiterates. About 18 percent of their mothers were employed and more than three-fourths of the fathers were employed. Table 4.2 in the following page details on the school and college education of the teachers.

Table 4.2 Details of School and College Education

Domain	Number (N=81)	Percentage
Designation		
Lecturer regularized	81	100
Experience in years		
1-10	06	07.41
11-20	48	59.26
21-30	20	24.69
31-40	07	08.64
Medium of school education		
Vernacular	37	45.67
English	44	54.30
Type of school		
School run by Christian missionaries	24	29.63
Government school-state board	36	44.44
Government school-central board	04	04.94
Private schools	17	20.99
Stay during school education		
Day's scholar	71	87.65
Residential schools	10	12.35
UG education		
University	07	8.64
Government college	38	46.91
College owned by Christian missionaries	06	07.41
Other private colleges	30	37.04
PG education		
University	29	35.80
Government college	25	30.87
Colleges owned by Christian missionaries	07	08.64
Other private colleges	20	24.69

The teachers who were the respondents for the study were all regularized by the Union Public Service Commission (UPSC), New Delhi. From the table 4.2 it is noticed that majority of the teachers (84%) had teaching experience between 11 and 30 years in colleges. Around 9 percent with 31-40 years of teaching experience, and the remaining 10 percent less than 10 years. About 54 percent had most of the school education in English medium schools and the rest in vernacular languages like Tamil, Malayalam, Telugu and Hindi. About 50 percent of the teachers were educated from government

schools owned by either the state or central board. On assessing the depth of knowledge it is widely perceived that individuals who had the basic education in vernacular languages and in government schools understand the concepts better. However schools run by private establishments and Christian missionaries are believed to have better infrastructural facilities and imbibe high level of discipline among students. Nearly 88 percent of the teachers attended the school as days scholar and rest were in residential schools. There are research evidences in education that students from residential schools are more accommodative and selfless. Regarding under graduate (UG) education nearly 47 percent were qualified from government colleges, 44 percent from private institutions and the rest in the universities. The analysis on post graduate (PG) education revealed that comparatively a higher percentage (36%) were qualified from universities, followed by private institutions (33%) and 31 percent from government colleges. The trend of people moving to universities for PG education is evidenced here.

Rice, J.K (2008) is apprehensive and goes to question ‘are qualified teachers really quality teachers? Likewise, are hiring and compensation policies that reward certain qualifications the equivalent of investing in teacher quality? Does hiring and retaining qualified teachers lead to improvements in student achievement? Researchers and policy makers agree that teacher quality is a pivotal policy issue in education reform, particularly given the proportion of education dollars devoted to teacher compensation coupled with the evidence that teachers are the most important school-related factor affecting student achievement. However, considerable disagreement surrounds what specific teacher attributes indicate quality and how to better invest resources to provide quality teachers for all students. This review examines empirical evidence on the relationship between teacher attributes and teacher effectiveness with the goal of informing federal, state, and local teacher policy.

Table 4.3 in the following page explains the emotional quotient (EQ) level in comparison with the socio-economic attributes.

Table 4.3 Emotional quotient (EQ) versus Socio-Economic Background

EQ / SEC	0 – 20*		21 – 41**		42-63***		Total	
	N=0	%	N=62	76.5 %	N = 19	23.5 %	N= 81	100%
Age								
33-42	-	-	19	65.5	10	34.5	29	32.1
43-52	-	-	32	82.1	7	17.9	39	49.38
53-62	-	-	10	77.0	3	23.0	13	18.52
Gender								
Female	-	-	39	78	11	22	50	61.71
Male	-	-	23	74.2	8	25.8	31	38.3
Mother tongue								
Tamil	-	-	49	76.6	15	23.4	64	79
Malayalam	-	-	3	60	2	40	5	6.2
Telugu	-	-	7	77.8	2	22.2	9	11.1
Other	-	-	3	100	-	-	3	3.7
Caste								
FC	-	-	25	83.3	5	16.7	30	37.1
BC	-	-	29	69	13	31.0	42	51.8
SC	-	-	8	88.9	1	11.1	9	11.1
Religion								
Hindu	-	-	52	75.4	17	24.6	69	85.18
Christian	-	-	8	80	2	20	10	12.35
Muslim	-	-	2	100	-	-	2	2.47
Other specify	-	-	-	-	-	-	-	-
Type of family								
Joint	-	-	32	76.2	10	23.8	42	51.86
Nuclear	-	-	30	76.9	9	23.1	39	48.14
Birth order								
First	-	-	20	74.1	7	25.9	27	33.33
Middle	-	-	27	72.9	10	27.1	37	45.68
Third	-	-	15	88.2	2	11.8	17	20.99
Marital status								
Unmarried	-	-	5	100	-	-	5	6.17
Married	-	-	55	74.3	19	25.7	74	91.36
Widow/separated	-	-	2	100	-	-	2	2.47
Department								
Arts	-	-	24	80.0	6	20.0	30	37.04
Science	-	-	22	71.0	9	29.0	31	39.51
Commerce	-	-	16	80.0	4	20.0	20	23.45

Highest degree possessed								
PG	-	-	2	66.7	1	33.3	3	3.71
M.Phil	-	-	40	78.4	11	21.6	51	62.96
Ph.D	-	-	20	74.1	7	25.9	27	33.33
Additional qualification								
Yes	-	-	38	82.6	8	17.4	46	56.79
No	-	-	24	68.6	11	31.4	35	43.21
Computer literacy								
Yes	-	-	25	75.8	8	24.2	33	40.74
No	-	-	37	77.1	11	22.9	48	59.21
Education of parents								
Mother								
Illiterate	-	-	13	81.2	3	18.8	16	19.75
School	-	-	44	77.2	13	22.8	57	70.37
Degree	-	-	5	62.5	3	37.5	8	9.87
Father								
Illiterate	-	-	6	85.7	1	14.3	7	8.65
School	-	-	37	78.7	10	21.3	47	58.03
Degree	-	-	10	55.6	8	44.4	18	33.32
Employment of parents								
Mother								
Employed	-	-	12	85.7	2	14.3	14	17.28
Unemployed	-	-	50	74.6	17	25.4	67	82.72
Father								
Employed	-	-	41	75.9	13	24.1	54	66.67
Unemployed	-	-	21	77.8	6	22.2	27	33.33
Designation								
Regular Lecturer	-	-	62	76.5	19	23.7	81	100
Experience in years								
1-10	-	-	5	83.3	1	16.7	6	7.41
11-20	-	-	37	77.1	11	22.9	48	59.26
21-30	-	-	15	83.3	3	16.7	18	22.22
31-40	-	-	5	55.6	4	44.4	9	11.11
Medium of instruction								
Vernacular	-	-	26	70.3	11	29.7	37	45.68
English	-	-	36	81.8	8	18.2	44	54.32

Type of school								
Schools run by Christian missionaries	-	-	20	83.3	4	16.7	24	29.63
Government school-state board	-	-	29	80.5	7	19.5	36	44.44
Government - CBSE	-	-	4	100	-	-	4	4.94
Private schools	-	-	9	52.9	8	47.1	17	20.99
School education								
Days scholar	-	-	53	74.6	18	25.4	71	87.65
Residential schools	-	-	9	90	1	10	10	20.99
UG education								
University	-	-	5	71.4	2	28.6	7	8.64
Government college	-	-	31	81.6	7	18.4	38	46.91
Colleges owned by Christian missionaries	-	-	4	66.7	2	33.3	6	7.41
Other private colleges	-	-	22	73.3	8	26.7	30	37.04
PG education								
University	-	-	21	72.4	8	27.6	29	35.81
Government college	-	-	20	80	5	20	25	30.86
Colleges owned by Christian missionaries	-	-	5	71.4	2	28.6	7	8.64
Other private colleges	-	-	16	80	4	20	20	34.69

*, **, *** - Scoring interpretations

Scoring Interpretations:

*****Scores between **42-63 points**, indicates high interpersonal intelligence. There will be successful relationships with colleagues and superiors. This stems from your ability to trust others, and thus resolve conflicts creatively. One of the major strengths is the ability to be aware of emotions both within oneself and others. When faced with criticisms they will be able to handle it positively.

****** Scores between **21-41 points**, indicate average interpersonal intelligence ie., most of the times they will be able to get along well with colleagues and superiors, however at times you may find it difficult. Increasing awareness of emotions in self and others may give you an insight into handling others.

******* Scores between **0-20 points** indicate problems at work regarding relationships with both colleagues and superiors. One needs to cultivate the ability to handle criticism positively, be more aware of emotions in self and others and thus handle people accordingly. One of the primary factors might be the inability to build trusting relationships and you must endeavour to be more trusting.

From the table 4.3 it can be inferred that about 77 percent of the teachers came under the 2nd grade of EQ with the scores ranging between 21-41, and 23 percent of teachers under the 1st grade of EQ with the score value of 42-63. It was a positive sign to understand that none were in the 3rd level thus indicating the high level of amicability, which is an essential quality to be possessed by teaching professionals. The 1st level of EQ refers to highest level of interpersonal relationship in the work place. The numbers under this category is comparatively less (23.5%). The SEV that were related to these scores were mostly between the age group of 53-62 years, males, Malayalam speaking, backward class, Hindus, joint family, middle born, married, from science departments, possessing only PG degree as highest qualification, those who did not possess any additional qualification, who possessed computer knowledge, having educated parents, both parents employed, with teaching experience of 31-40 years, and who had both their UG and PG education in universities. More the qualification better was the EQ. Teachers with additional qualification along with eligible qualification were better of emotionally. So also higher the years of teaching experience better was their emotional level. When the 2nd grade of EQ was compared with socio-economic variables it was found that teachers in their mid-life (43-53 years of age) were emotionally intelligent when compared with other age groups. Higher the age better was the EQ. Telugu and Tamil speaking teachers were more emotionally intelligent than the rest. The caste wise comparison showed that teachers belonging to scheduled caste and forward caste were emotionally intelligent compared to backward communities. There was no difference with respect to type of family. On comparing the birth order with EQ it was observed that the last born or 3rd born were better of when compared to the first born or 2nd born. Lecturers from Arts and Humanities and Commerce subjects were highest in number in 2nd level. The common belief is individuals with arts and humanities background are more emotional and passionate about the surrounding, while individuals with science background go by facts and evidence. Emotional intelligence is a personal competency and is an essential attribute for people handling with adolescent girls especially girls between the age group of 17-21 years.

Socio-Economic Variables (SEV) versus Emotional Quotient (EQ)

Fig.4.1 Age vs. EQ

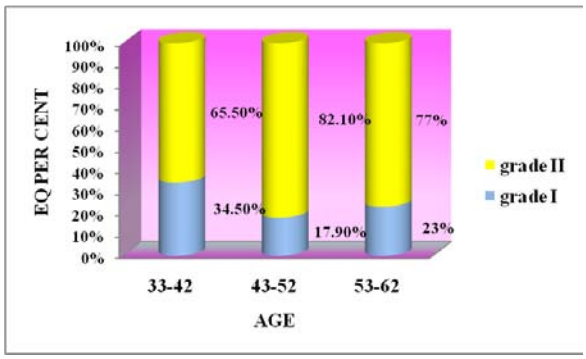


Fig.4.2 Gender vs. EQ

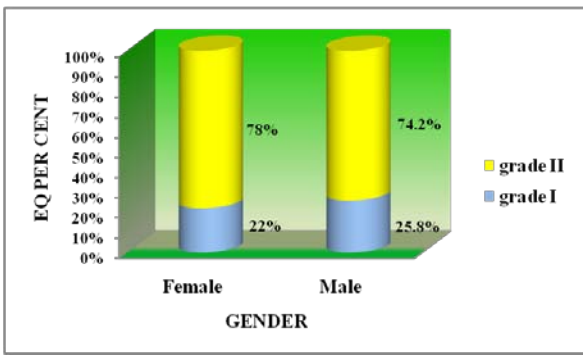


Fig.4.3 Mother Tongue vs. EQ

Fig.4.4 Caste vs. EQ

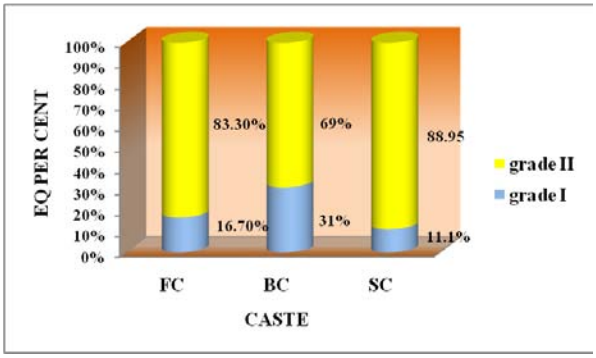


Fig.4.5 Religion vs. EQ

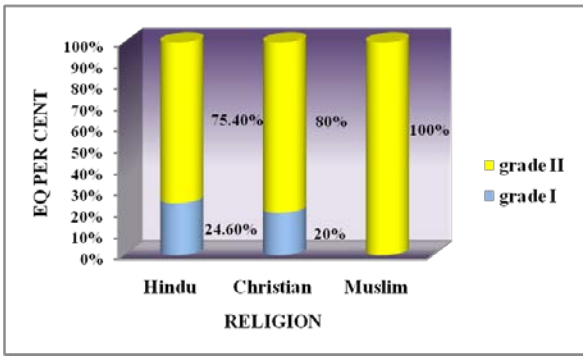
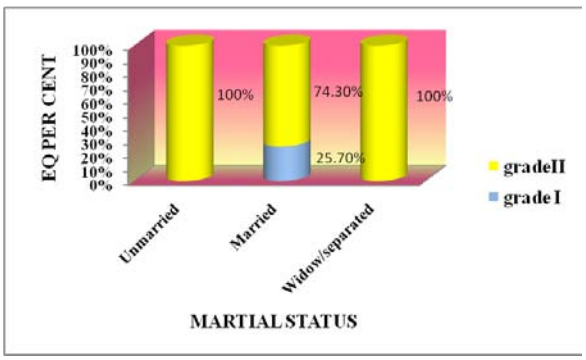


Fig.4.6 Marital Status vs. EQ



Grade I – Scores between 42-63 High Interpersonal Intelligence

Grade II – Scores between 21-41 Average Interpersonal Intelligence

Grade III – Scores between 0-20 Poor Interpersonal Intelligence

Fig.4.7 Birth Order vs. EQ

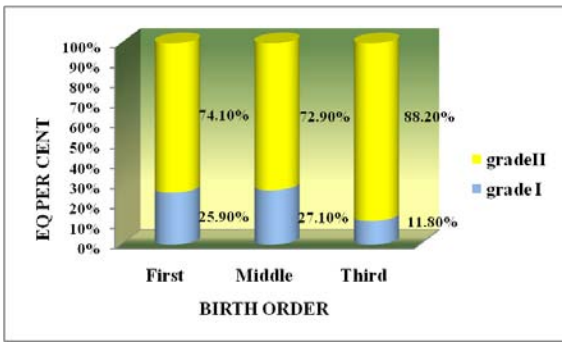


Fig.4.8 Departments vs. EQ

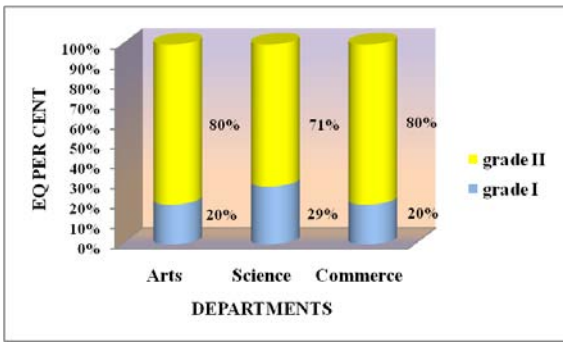


Fig.4.9 Highest Degree possessed vs. EQ

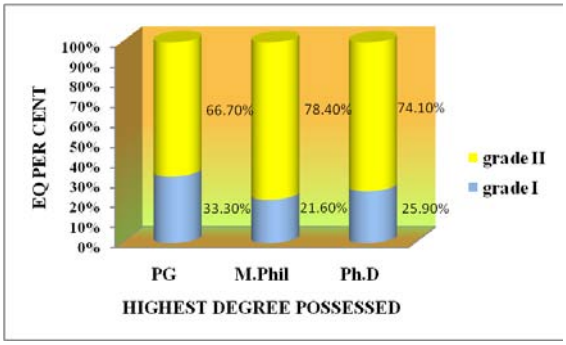


Fig.4.10 Additional Qualification vs. EQ

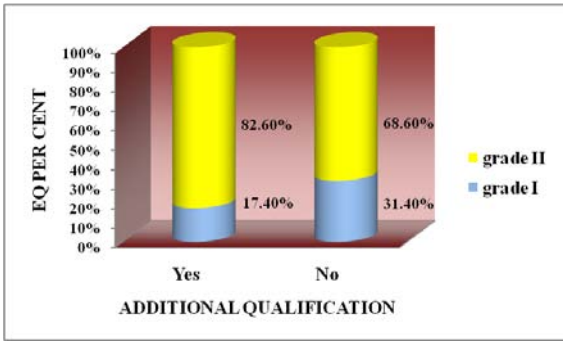


Fig.4.11 Education of Mother vs. EQ

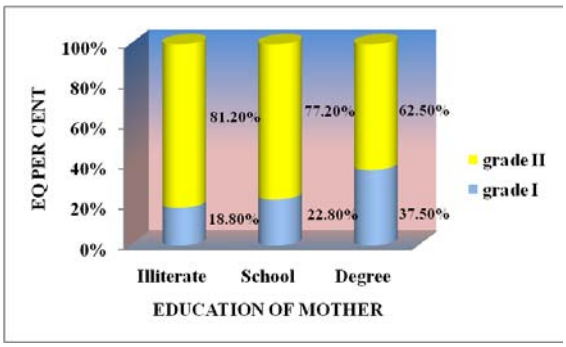


Fig.4.12 Education of Father vs. EQ

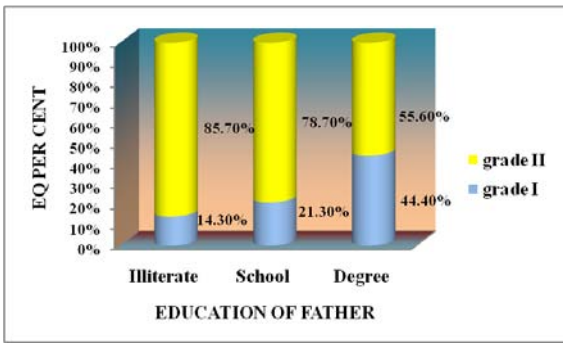


Fig.4.13 Employment of Mother vs. EQ

Grade I – Scores between 42-63 High Interpersonal Intelligence

Grade II – Scores between 21-41 Average Interpersonal Intelligence

Grade III – Scores betweenD 0-20 Poor Interpersonal Intelligence

Fig.4.14 Experience in Years vs. EQ

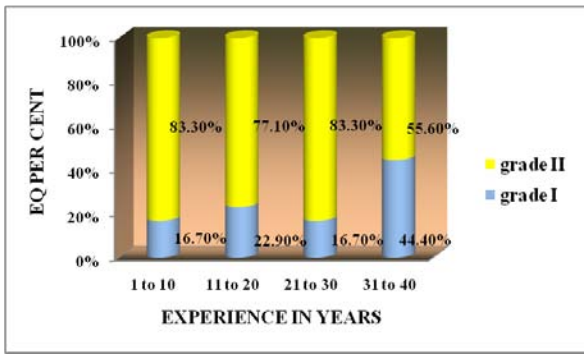


Fig.4.15 Medium of Instruction vs. EQ

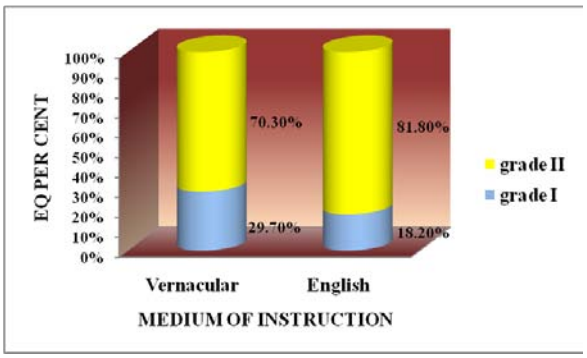


Fig.4.16 Type of School vs. EQ

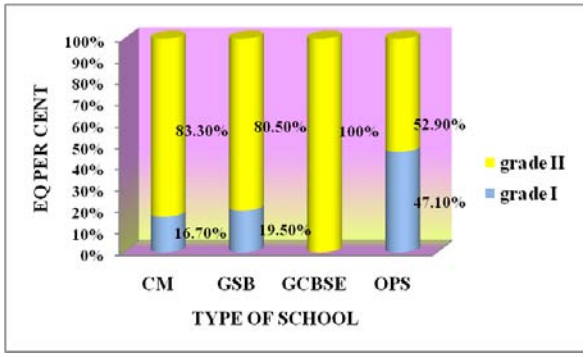


Fig.4.17 Stay during School Edn. vs. EQ

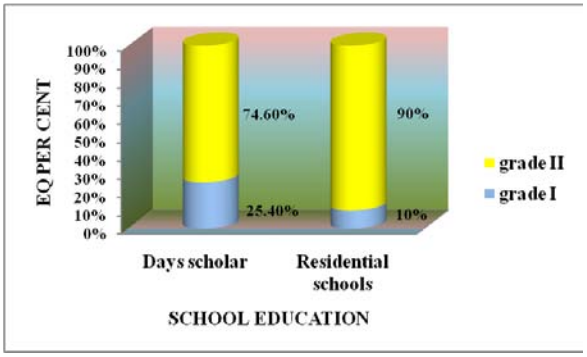


Fig.4.18 UG Education vs. EQ

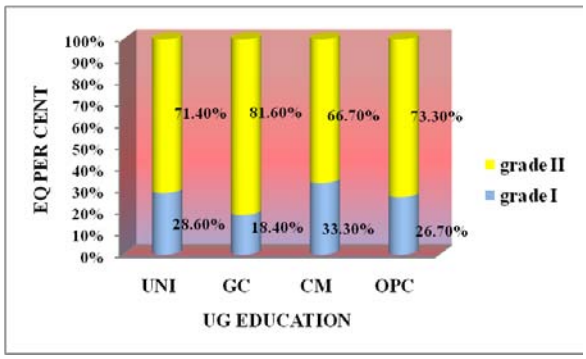
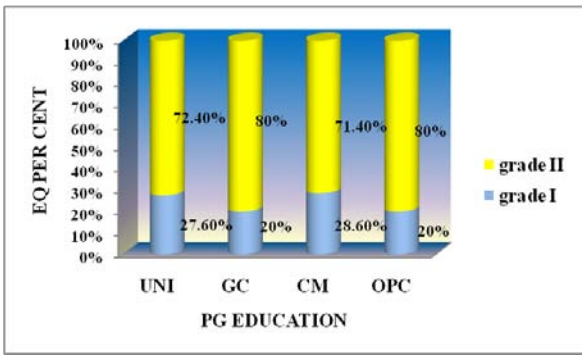


Fig.4.19 PG Education vs. EQ



Grade I – Scores between 42-63 High Interpersonal Intelligence

Grade II – Scores between 21-41 Average Interpersonal Intelligence

Grade III – Scores between 0-20 Poor Interpersonal Intelligence

Tables 4.4 to 4.10 show the statistical analysis of selected SEV over EQ.

Table 4.4 EQ Vs Gender

H_o: There is no significant difference between gender and emotional quotient.

H_1: There is significant difference between gender and emotional quotient.

Gender	Number	Mean	t-value	Sig.
Male	31	36.16	- 0.167	0.868
Female	50	35.88		

The calculated t-value (- 0.167) is not significant at 5% level, one can accept the null hypothesis. There is no significant difference between gender and emotional quotient.

With more and more women entering the work force and being exposed to the work culture where both males and females work together a level of uniformity in attitude and interpersonal relationships is obvious especially among teaching community who handle classes for a homogenous group age wise and gender wise.

Table 4.5 EQ Vs Family Type

H_o: There is no significant difference between family type and emotional quotient.

H_1: There is significant difference between family type and emotional quotient

Family type	Number	Mean	t-value	Sig.
Joint family	42	36.93	1.189	0.238
Nuclear family	39	34.97		

The calculated t-value (1.189) is not significant at 5% level, one can accept the null hypothesis. There is no significant difference between family type and emotional quotient. In practice it is believed that individuals reared in a joint family would be

more accommodative in workplace or in any team. However, in the contemporary days the competitive spirit for accomplishing the goals, mends their approach and they are emotionally intelligent regardless of the nature of work they do. This can be a achieved quality and not an ascribed quality.

Table 4.6 EQ Vs Computer Literacy

H_o: There is no significant difference between computer literacy and emotional quotient.

H_1: There is significant difference between computer literacy and emotional quotient.

Computer literacy	Number	Mean	t-value	Sig.
Yes	33	36.48	0.505	0.615
No	48	35.65		

The calculated t-value (0.505) is not significant at 5% level, one can accept the null hypothesis. There is no significant difference between computer literacy and emotional quotient.

Table 4.7 EQ Vs Medium of School Education

H_o: There is no significant difference between medium of school education and emotional quotient.

H_1: There is significant difference between medium of school education and emotional quotient.

Medium of school education	Number	Mean	t-value	Sig.
Vernacular	37	37.30	1.470	0.146
English	44	34.89		

The calculated t-value (1.470) is not significant at 5% level, one can accept the null hypothesis. There is not significant difference between medium of school education and emotional quotient. By observation individuals educated in vernacular medium are more accommodative and emotionally intelligence. It is possible for a consistent result in a workplace one is expected to compromise on their inherent look out and tune to the requirements of the work spot.

Table 4.8 EQ Vs Caste

H_o: There is no significant difference among caste and emotional quotient.

H_1: There is significant difference among caste and emotional quotient.

Caste	Mean	F-value	Sig.
FC	35.83	3.707	0.029
BC	37.33		
SC	30.22		

The calculated t-value (3.707) is significant at 5% level, one can reject the null hypothesis. There is significant difference among caste and emotional quotient. Caste is an age old institution which reflects in the upbringing of an individual, reflected in all life cycle rituals, marriage and therefore embedded in ones sub-conscious. Societal dominance of one group and subversion of other reflects ones emotional state of mind. It is also possible for the minority and marginalized community to be emotionally intelligent ones survival in the workplace demands that for better understanding and fulfillment.

Table 4.9 EQ Vs Religion

H_o: There is no significant difference among religions and emotional quotient.

H_1: There is significant difference among religion and emotional quotient.

Religion	Mean	F-value	Sig.
Hindu	36.13	0.241	0.787
Christian	35.70		
Muslim	32.50		

The calculated t-value (0.241) is not significant at 5% level, one can accept the null hypothesis. There is no significant difference among religion and emotional quotient.

This is a positive note that in a common place of work religion does not make a variable for EQ.

Table 4.10 EQ Vs Birth Order

H_o: There is no significant difference among ordinal position and emotional quotient.

H_1: There is significant difference among ordinal position and emotional quotient.

Birth Order	Mean	F-value	Sig.
First child	37.30	1.049	0.355
Middle child	35.95		
Last child	34.00		

The calculated t-value (1.049) is not significant at 5% level, one can accept the null hypothesis. There is no significant difference among ordinal position and emotional quotient. It is widely believed that the last born will be emotionally intelligent as the psychology is to get the better ones of everything one need to play emotional game else, the human tendency is to show less attention to the last.

Table 4.11 Competency Level towards Academic Issues

Sl. No.	Levels with respective scores / Competency attributes	Unsati-sfactory 1	Satisfact-ory 2	Average 3	Good 4	Excellent 5
1	Preparation for the class	0	18 (22.2)	3 (3.7)	43 (53.1)	17 (21)
2	Punctuality in conducting classes.	0	12 (14.8)	8 (10)	41 (50.6)	20 (24.7)
3	Planning and completion of the syllabus on time.	0	0	15 (18.5)	41 (50.6)	20 (24.7)
4	Communication skill in English- the ability to exchange information with administrators, colleagues, students and others clarity of presenting ideas, concepts, explanation, etc	0	10 (12.3)	9 (11.1)	50 (61.7)	12 (14.8)
5	Clarity of Expression like language and voice	0	9 (11.1)	8 (10)	49 (60.6)	15 (18.5)
6	Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.)	1 (1.2)	12 (14.8)	12 (14.8)	43 (53.1)	13 (16)
7	Active teaching methodology used like group discussions, remedial courses, assignments and seminars, field visit, quiz etc	3 (3.7)	12 (14.8)	14 (17.2)	35 (43.2)	17 (21)
8	Involvement in Co curricular activities, like sports, culture, NSS, NCC, field trips etc.	13 (16)	21 (26)	17 (21)	21 (26)	9 (11.1)
9	Availability to students outside class hours for clarification, counselling, career guidance, etc.	2 (2.4)	17 (21)	10 (12.3)	41 (50.6)	11 (13.5)
10	Role as a leader Mentor/ /Guide/Facilitator/ Counsellor/ Motivator	1 (1.2)	15 (18.5)	13 (16)	40 (49.5)	12 (14.8)
11	The examinations/assignments were graded fairly	0	14 (17.2)	6 (7.4)	45 (55.5)	16 (19.7)
12	Knowledge of subject area	0	8 (10)	5 (6.2)	48 (59.3)	20 (24.7)
13	Knowledge of operating computers	17 (21)	11 (13.6)	22 (27)	28 (34.7)	3 (3.7)
14	Confidence in designing curriculum	3 (3.7)	8 (10)	16 (19.7)	43 (53.1)	1 (1.2)

15	Confidence in new course development	3 (3.7)	13 (16)	18 (22.2)	38 (47.0)	9 (11.1)
16	Professional growth –participation and paper presentation in academic events, publication, etc.,	11 (13.6)	15 (18.5)	27 (33.3)	22 (27)	6 (7.4)
17	Rapport with students	0	12 (14.8)	7 (8.6)	44 (54.3)	18 (22.2)
18	Record maintenance like internal marks, attendance, special requests by students if any.	1 (1.2)	9 (11.1)	12 (14.8)	37 (45.7)	22 (27.2)
19	Recommendations of the 6th pay commission on pay matters	4 (4.9)	19 (23.5)	18 (22.2)	34 (42)	6 (7.4)
20	Your opinion on pay and promotion based on teacher performance appraisal	9 (11.1)	18 (22.2)	16 (19.7)	29 (35.8)	9 (11.1)
21	Participation in seminars, conferences, publications and other academic activity	8 (10)	19 (23.5)	22 (27.0)	26 (32.1)	6 (7.4)
	Total	**76**	**272**	**278**	**798**	**262**

Numbers in parentheses indicate percentages

Level 1 – Novice: Person needs total help to do the job-unable to meet standards.

Level 2 – Learner: Needs frequent supervision – person needs much help to do the job.

Level 3 – Proficient: Able to do as per standards, consistent, needs occasional supervisions does without much help.

Level 4 – Professional: Experienced, need no assistant for supervision.

Level 5 – Expert: Authority for his ability – exemplary standards independency and one who is able to coach others.

It is evident from the above table that the number of teachers under the score level 'good and excellent' is higher. This is a positive trend. For the statement on "opinion on pay and promotion based on teacher performance appraisal" there was a fair response. Scores obtained for "participation in seminars, conferences, publications and other academic activity" was the least. This could be due to the fact that this college is basically a UG degree college. Only two departments namely, Home Science and

Corporate Secretaryship offer PG and M.Phil, courses. Therefore the scope for research publication and participation in academic events become less. Added to this sanction of duty leave for attending conferences and seminars is a cumbersome process hence, only few lecturers attempt it. Scores obtained for the matters related to class room interaction with students, teaching methodologies, grading of assignments and tests were on a higher side followed by matters related to computer literacy and updating subject knowledge.

Table 4.12 Emotional Quotient versus Competency Level

Sl.No.	Mean EQ & CL / Departments	Mean EQ*		Mean Competency level**	
		HoD	Other Staff	HoD	Other Staff
1	English	39	39.70	2.71	3.40
2	Economics	45	34.67	4.20	3.61
3	Commerce	38	33.25	3.14	3.30
4	Commerce Voc. (Office Management & Sec. practice)	31	33.67	3.60	2.10
5	Commerce (Corporate Secretaryship)	41	38.56	3.14	3.17
6	Maths	33	34.83	4.60	3.64
7	Physics	38	38.00	4.19	3.95
8	Chemistry	42	42.50	2.00	2.85
9	Botany	27	26.00	3.28	3.70
10	Zoology	38	38.00	4.15	4.15
11	Computer Science	41	32.67	4.28	4.02
12	History	32	37.33	2.19	3.33
13	Home Science	32	36.33	4.00	3.67
14	Tamil	21	30.00	4.00	3.63
15	Hindi	39	39.00	4.00	4.00
16	French	39	39.00	4.04	4.04
	Mean	**36**	**35.84**	**3.40**	**3.35**

***The highest possible mean score for EQ is 63 and the lowest is 0**

****The highest possible mean score for CL is 5 and the lowest is 1**

From the table above it can be inferred that the mean scores obtained for EQ and CL by the HoDs was slightly higher than the other lecturers. Heads of Economics, Corporate Secretaryship, Computer Science, English, Hindi, Commerce, Physics were comparatively higher. Only a negligible difference was noticed. The highest EQ level was obtained by Chemistry department members followed by English, Corporate Secretaryship. The gap between the top scorer and least scorer among HoDs was very high with 24 points. Most of the departments secured good scores ranging between 4 and 5 in CL. However the gap was wide with 2.05. The same is statistically viewed in Table 4.13, and diagrammatically represented in figure 4.20.

Table 4.13 Mean EQ Vs Mean CL

Ho : There is no significant difference between EQ and CL among the teachers of various Departments

H1 : There is significant difference between EQ and CL among the teachers of various Departments

Correlation	Coefficient	Significance
Pearson	.141	.209
Spearman	.127	.259

From the table it can be inferred that both the Pearson and Spearman coefficient is not significant at 5% level. There is no significant relationship between EQ and CL.

Fig.4.20 EQ and CL of various departments

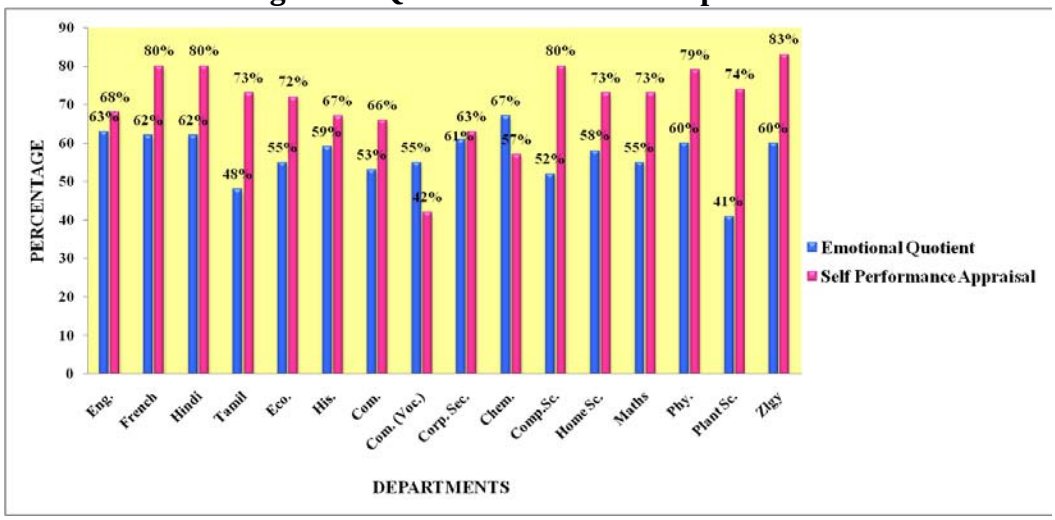


Table 4.14 explains the overall mean value for various competency/performance attributes.

Table 4.14 Mean Performance Level of the Departments

Sl. No.	Depts. / Performance Attributes	Language Departments				Arts Departments		Commerce Departments			Science Departments							Mean Value
		English	French	Hindi	Tamil	Economics	History	Commerc	Commerc (Voc.)	Corporate Sec.	Chemistry	Comp.Sc	Home Science	Maths	Physics	Plant Science	Zoology	
1	Preparation for the class	3.8	5	5	4.17	3.9	3.3	3.25	3.33	3.11	3	4.7	3.6	4.17	4	4	4	4.50 +3.60 +3.23+3.90 = **3.80**
2	Punctuality in conducting classes.	3.6	5	5	4.2	3.7	3.7	3.6	3.3	3.4	3.3	4.7	3.8	4.2	4.3	4.5	4.7	4.45 + 3.70 +3.43 +4.21= **3.90**
3	Planning and completion Of the syllabus on time.	3.5	5	4	4.2	3.8	3.3	3.9	3.3	3.4	2.8	4.3	4.1	3.8	4.8	4.5	3.7	4.20 +3.55 +3.53+4.0 = **3.82**
4	Communication skill in English: the ability to exchange information with administrators, colleagues, students and others; clarity of presenting ideas, concepts, explanation, etc	3.8	4	3	3.5	4.1	3.3	3.6	3.3	4	3	4	3.8	3.8	4.5	4	4	3.58 +3.70 +3.63+3.87= **3.70**

5	Clarity of Expression like language and voice	3.9	4	4	2.8	4	4	3.8	3	3.7	3	4	4.1	4	4.3	4	4.3	3.70 +4.0 +3.50 +3.96= **3.79**
6	Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.)	3.2	5	5	4.2	3.5	3.8	3.4	3	3.1	3.25	4	3.8	4.3	3.75	4	4.3	4.35 +3.65 +4.75 +3.91= **4.17**
7	Active teaching methodology use like group discussions, remedial courses, assignments and seminars, field visit, quiz etc.	3.1	5	5	4.2	3	3.7	3.3	3	3.1	2.75	4.3	4.1	3.5	4.25	4.5	3.3	4.33 +3.35 +3.13 +3.81= **3.66**
8	Involvement in Cocurricular activities.,like sports, culture, NSS, NCC, field trips etc.	3	5	4	3.8	3.3	3	2.5	2.3	2.1	2	2	3.7	2.5	2.75	2.5	3.3	3.95 +3.15 +2.30 +2.68= **3.02**
9	Availability to students outside class hours for clarification, counseling, career guidance, etc.	3.5	4	4	3.8	3.6	3.9	3.5	3.3	3.4	2.25	4.3	3.9	3.2	3.5	3	3.7	3.83+3.75+3.40+3.41= **3.60**

10	Role as a leader Mentor/ Motivator/ Guide/ Facilitator/ Counselor	3.5	4	4	3.8	3.8	3.9	3.5	3	3	3	4.3	3.9	3	4	4	3.7	3.83+3.85+3.17+3.70 = **3.64**
11	The evaluation of internal tests /external examinations/assignments were graded fairly	3.6	4	4	4.2	3.4	3.7	3.4	3.3	3.4	3.25	4.3	3.8	3.25	4.5	4.5	4.3	3.95+ 3.55+ 3.37+4.0 = **3.72**
12	Knowledge of subject area	4	4	4	4.3	4.2	3.7	3.6	3.3	4	3	4.3	3.7	4.3	4.5	4.5	4.3	4.07 +3.95 +3.63 +4.08 = **3.93**
13	Knowledge of operating computers	2.3	3	4	3.3	2.4	3	2.75	3	3.11	2.25	4.3	3	2.8	3.75	2	3.3	3.15+2.70+2.95+3.06 = **2.97**
14	Confidence in designing curriculum	3.1	4	4	4.3	3.9	3.3	3.4	3.3	3.7	3	4	3.7	3.3	4.3	4	4	3.85 +3.60 +3.46+3.75 = **3.67**
15	Confidence in new course development	3.1	4	4	3.7	4	3	3.13	2.7	3.3	3	4	3.7	3.3	4.3	4	3.3	3.70 +3.50 +3.04+3.66 = **3.48**
16	Professional growth –participation and paper presentation in academic events, publication, etc.,	3.1	1	1	4	3.3	3	2.6	2.3	3	2.8	2.7	2.9	2.5	2.7	3.5	3	2.28+3.15+2.63+2.87= **2.73**
17	Rapport with students	4	5	5	4	4.1	3.3	3.75	3.3	3.7	3.3	4.3	3.5	3.3	4.8	4	4	4.50+3.71+3.58+3.89= **3.92**
18	Record maintenance like internal marks, attendance, special requests by students if any..	3.7	5	5	4.17	3.9	3.7	3.6	3.3	3.4	3.25	4.7	4.1	3.8	4.5	4.5	4	4.47+3.80+3.43+4.12= **3.95**

19	Recommendations of the 6th pay commission on pay matters	3.8	4	4	2.3	3.2	2.3	2.8	3	3.1	3	4.3	3.1	4.2	3.75	2.5	3.3	3.53+2.75+2.97+3.45= **3.18**
20	Your opinion on pay and promotion based on teacher performance appraisal	3.1	4	4	3.3	3.3	4.4	3	2.7	2.3	2	4	4.4	3.8	2.75	2	3.7	3.6+3.85+2.67+3.24= **3.34**
21	Participation in seminars, conferences, publications and other academic activity	2.9	2	2	4	3.4	2.8	2.4	2.3	3.3	2.75	3	2.8	2.8	3	3.5	3.6	2.73+3.10+2.67+3.06= **2.89**
	Mean Value	3.4	4.04	4	3.63	3.4	3.33	3.3	2.1	3.17	2.85	4.02	3.67	3.64	3.95	3.7	4.2	3.77+3.37+2.86+3.71= **3.43**

From table 4.14 it can be inferred that the highest mean value of 4.17 for 5, was obtained for statement 6 on Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.), followed by evaluation of internal marks and maintaining records with mean value of 3.95, and forth on ‘knowledge in subject area’ with mean value of 3.93. The least mean values were obtained for issues related to computer literacy, participation in seminars, co-curricular activities and performance based pay. The overall mean value was 3.43 which is higher than the minimum required level of 3 points. The maximum required level is 5.

Table 4.15 projects the rankings of departments with respect to competencies and performance.

Table 4.15 Rankings of Departments with respect to Competencies and Performance

Sl.No.	Statements	Ranking according to the Departments			
		I	II	III	IV
1	Preparation for the class	L	S	A	C
2	Punctuality in conducting classes.	L	S	A	C
3	Planning and completion of the syllabus on time.	L	S	A	C
4	Communication skill in English: the ability to exchange information with administrators,colleagues, students and others- clarity of presenting ideas, concepts, explanation, etc	S	A	C	L
5	Clarity of Expression like language and voice	A	S	L	C
6	Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.)	C	L	S	A
7	Active teaching methodology use like group discussions, remedial courses, assignments and seminars, field visit, quiz etc	L	S	A	C
8	Involvement in Cocurricular activities.,like sports, culture, NSS, NCC, field trips etc.	L	A	S	C
9	Availability to students outside class hours for clarification, counseling, career guidance, etc.	L	A	S	C
10	Role as a leader Mentor/Motivator/ Guide/Facilitator/Counselor	A	L	S	C
11	The evaluation of internal tests/external examinations/assignments were graded fairly	S	L	A	C
12	Knowledge of subject area	S	L	A	C
13	Knowledge of operating computers	L	S	A	C
14	Confidence in designing curriculum	L	S	A	C

15	Confidence in new course development	L	S	A	C
16	Professional growth –participation and paper presentation in academic events, publication, etc.,	A	S	C	L
17	Rapport with students	L	S	A	C
18	Record maintenance like internal marks, attendance, special requests by students if any..	L	S	A	C
19	Recommendations of the 6th pay commission on pay matters	L	S	C	A
20	Your opinion on pay and promotion based on teacher performance appraisal	A	L	S	C
21	Participation in seminars, conferences, publications and other academic activity	S	A	L	C
	Highest number in the respective ranks	**I Rank** L = **12** A = 04 C = 01 S = 04	**II Rank** L = 05 A = 04 C = 00 S = **12**	**III Rank** L = 02 A = **11** C = 03 S = 05	**IV Rank** L = 02 A = 02 C = **17** S = 00

L – Language, A – Arts, C – Commerce, S - Science

Language Departments- 4 : English, French, Hindi, Tamil
Arts Departments -2 : Economics, History
Commerce Departments-3 : Commerce (general), Commerce Vocational: Office Management & Secretarial Practice, Commerce: Corporate Secretaryship
Science Departments -7 : Chemistry, Computer Science, Home Science, Maths, Physics, Plant Science, Zoology

From the table it can be inferred that Language Departments have secured maximum first ranks of 12 ranks for the competency/ performance domain followed by Science Departments in the second place, Arts and Commerce Departments in the third and fourth place respectively.

4.5. Identifying the factors that constitute the teachers inclination towards their profession –factor analysis

In factor analysis, factors are calculated in such a way to maximize the amount of variance accounted for at each step until all variance in the initial data has been accounted for. The amount of variance extracted in a single step is called the eigen value, and plotting the eigen values at each stage in the factor analysis gives a scree plot. The Kaiser criterion is the number of factors with eigen values greater than one. Tables 4.16 to 4.18 explain the values obtained for factor analysis.

Table 4.16 KMO and Bartlett's Test(a)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	**Approx. Chi-Square**	1065.771
	df	171
	Sig.	.000
a Based on correlations		

From the above table it can be inferred that a high value of Kaiser-Meyer-Olkin measure of sampling adequacy and the significant level of Bartlett’s test of sphericity are indication to proceed with factor analysis.

Table 4.17 Rotated Component Matrix(a)

Competency/ performance domains	**Raw**			**Rescaled**		
	Component			**Component**		
	1	**2**	**3**	**1**	**2**	**3**
sa1	.813	.199	.195	.784	.192	.188
sa3	.788	.308	.010	.777	.304	.010

sa18	.728	.115	.233	.740	.117	.236
sa5	.618	.181	.079	.729	.214	.093
sa6	.697	.215	.002	.726	.224	.002
sa17	.680	.061	.209	.722	.065	.222
sa10	.705	.175	.420	.706	.175	.421
sa11	.679	.337	.151	.706	.350	.157
sa9	.705	.068	.459	.671	.064	.437
sa2	.642	.140	.078	.667	.145	.081
sa7	.689	.252	.399	.632	.232	.367
sa4	.472	.346	.163	.558	.408	.193
sa13	.129	.987	-.070	.107	.814	-.057
sa21	.164	.773	.587	.146	.689	.522
sa14	.433	.591	.134	.448	.611	.138
sa12	.450	.485	.105	.533	.574	.124
sa15	.502	.543	.198	.496	.536	.195
sa8	.473	.045	1.021	.372	.036	.803
sa16	-.028	.705	.773	-.025	.615	.675
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a Rotation converged in 10 iterations.						

Table 4.18 Total Variance Explained

	Component	Rotation Sums of Squared Loadings		
		Total	**% of Variance**	**Cumulative %**
Raw	**1**	6.616	33.437	33.437
	2	3.532	17.850	51.287
	3	2.800	14.152	65.439
Rescaled	**1**	6.850	36.052	36.052
	2	3.149	16.576	52.628
	3	2.169	11.418	64.045
Extraction Method: Principal Component Analysis.				

Three factors were extracted with eigen values more than one. As evident from the table, three factors extracted together account for 65.44% of the total variance. Hence, we have reduced the number of variables from 21 to 3 underlying factors. Variables 1,3,18,10,9, 6, 7, 17, 11, and 2 have loadings of 0.813, 0.788, 0.728, 0.705, 0.697, 0.689, 0.680, 0.679, 0.642, and 0.618 on Factor 1. This suggests that factor 1 is a combination of these variables. Therefore the factor can be interpreted as ‘teacher-taught index’. They reflected issues concerning students’ performance, student friendliness and teaching methodology. It can be implied that more emphasis is laid to traditional pattern of teaching and teaching methods. This may be because the college is basically a UG degree college and out of 16 only 2 faculties offer PG and Pre-doctoral programmes. Therefore, the opportunity to pursue the research work is limited.

Factor 2, is constituted by variables 13, 12, and 16 with loadings of 0.99, 0.77, and 0.71. These factors can be clubbed into a single factor called ‘knowledge update index’. Improving the computer literacy, updating the subject knowledge, involving in research work, presenting and publishing research articles and participating in

academic events are covered under this factor. The UGC and 6th pay commission report emphasis more on research based activities and making teaching more interactive and meaningful by providing subject gateways, having brain storming session which would improve the thinking process.

As for Factor 3, it is evident that variable 8 and 16 have the highest loading of 1.021 and 0.773. Both these variables pooled together can be termed as 'out reach index'. It covers issues related to co-curricular activities. This is also equally important for teaching and learning. It gives a better understanding of matters happening around us which are indirectly educative and informative.

4.6. Gap analysis between expected and actual outcomes

'Gap' indicates the difference in scores between the required maximum scores and obtained score. The higher the gap, poorer is the level of competency/ performance. The following table explains the same.

Table 4.19 Gap Analysis of Competency Related Attributes

Sl.No.	Performance Attributes	Maximum Mean Score	Mean Score Obtained	Performance Gap
1	Preparation for the class	5	3.80	1.20
2	Punctuality in conducting classes.	5	3.90	1.10
3	Planning and completion of the syllabus on time.	5	3.82	1.18
4	Communication skill in English: the ability to exchange information with administrators, colleagues, students and others- clarity of presenting ideas, concepts, explanation, etc	5	3.70	1.30
5	Clarity of Expression like language and voice	5	3.79	1.21
6	Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.)	5	4.17	0.83
7	Active teaching methodology used like group discussions, remedial courses, assignments and seminars, field visit, quiz etc.	5	3.66	1.34

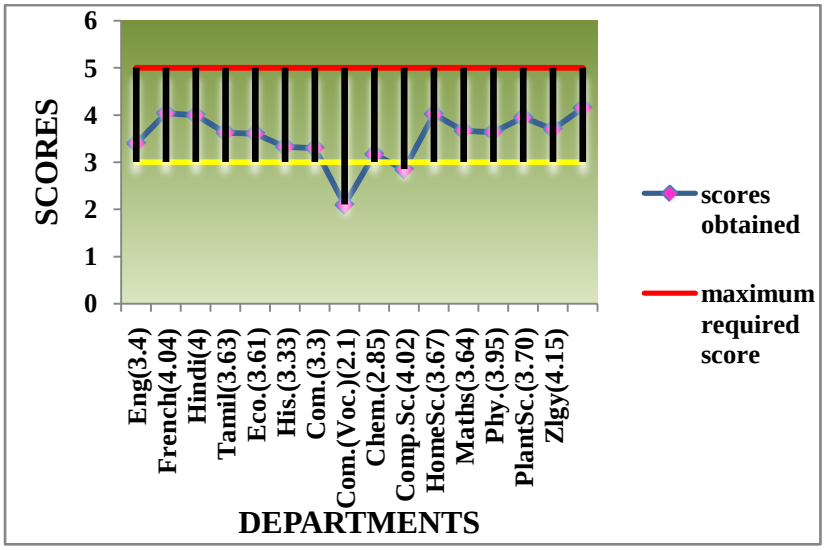
8	Involvement in Co-curricular activities., like sports, culture, NSS, NCC, field trips etc.	5	3.02	1.98
9	Availability to students outside class hours for clarification, counselling, career guidance, etc.	5	3.60	1.40
10	Role as a leader Mentor/ Motivator/ Guide/Facilitator/ Counsellor	5	3.64	1.36
11	The evaluation of internal tests/external examinations/assignments were graded fairly	5	3.72	1.28
12	Knowledge of subject area	5	3.93	1.07
13	Knowledge of operating computers	5	2.97	2.03
14	Confidence in designing curriculum	5	3.67	1.33
15	Confidence in new course development	5	3.48	1.52
16	Professional growth –participation and paper presentation in academic events, publication, etc.,	5	2.73	2.27
17	Rapport with students	5	3.92	1.73
18	Record maintenance like internal marks, attendance, special requests by students if any.	5	3.95	1.05
19	Recommendations of the 6^{th} pay commission on pay matters	5	3.18	1.82
20	Your opinion on pay and promotion based on teacher performance appraisal	5	3.34	3.18
21	Participation in seminars, conferences, publications and other academic activity	5	2.89	2.11
	Overall Mean	**5**	**3.43**	**1.54**

The minimum possible gap is 1 and maximum 4. From the table it is evident that the mean gap was 1.54 which is only a little higher by 0.54. The gap ranged between 0.83 and 3.18. The gap was wider for participation in seminars/ conferences, publications, computer literacy and performance linked pay. The gap was less for competencies related to class room interaction like class preparation,

teaching methodology, communication skill, completion of syllabus etc. The gap can be narrowed by conducting Faculty Development Programmes (FDP), and organizing need based short term training programme.

Hanushek (1992) estimates that the difference between having a good teacher and having a bad teacher can exceed one grade-level equivalent in annual achievement growth. Likewise, Sanders (1998) and Sanders and Rivers (1996) argue that the single most important factor affecting student achievement is teachers, and the effects of teachers on student achievement are both additive and cumulative. Further, they contend that lower achieving students are the most likely to benefit from increases in teacher effectiveness. Taken together, these multiple sources of evidence however different in nature, all conclude that quality teachers are a critical determinant of student achievement. In the current policy climate of standards-based reform, these findings make a strong case for gaining a better understanding of what really accounts for these effects.

Fig.4.21 Gap analysis: CL vs Department



4.6. Listing the constraints in fulfilling academic demands, and strategies to overcome them and improving the competencies

The constraints are those that hinder or obstruct in the smooth expression of the talents and skills within the classroom, in the departmental activities and in updating one's own knowledge and in the overall performance. The following table speaks the constraints and solutions as told by the respondents.

Table 4.20 Constraints in fulfilling the Academic Demands and Strategies to overcome them

Sl.No	Res. No	**Constraints and Problems in Fulfilling Academic Demands**	**Strategies to overcome and improve the Competencies**	**Suggestions**
1	2	Because of lack of hands and infrastructure it has become absolutely impossible to think about improving ourselves.	Student strength must be reduced to 25-30/class Refresher courses must be made compulsory for all Provision must be made for a choice of the focus of the refresher courses. Fuss on sanctioning leave when people, go for higher studies must be abolished. Immediately after finishing the courses they must be asked to apply this knowledge for about 5 years and not allowed to resign and go away.	
2	4.	Non-Replacement of staff – after retirement/ transfer takes a long time. Lack of staff leads to work load being distributed that curtails all academic pursuits. Lack of staff in office so even clerical works to be taken care by the individual. Lack of technical skills. Lot of constraints in availing on-duty to go for seminars and conferences.	Computer and other technological training to be given. Exposure to new fields through workshops that should be feasible to everyone.	
3	5.	Too many students in each class. Lack of conducive atmosphere. Unfriendly syllabus which does not promote creativity. Lack of motivation (to both the teachers and the taught) Heterogenous students.	Mandatory hands on training in the latest teaching methodology to the teachers. Regular review meetings to assess the performance of the teacher. (by a fair, competent authorities) Getting feedback from the students and seeking teachers opinion on it. More freedom to the teachers on designing the curriculum and teaching methods. Teachers can be sent to other, (higher) institutions to observe /study their work culture. (exchange programme for training)	In Indian social set-up, competency in any profession mainly rests on the support extended by the family members especially in the case of women employees. Therefore inclusion of a few question on their time management ability, potential to strike a balance between

				home front and academic demands, would make this questionnaire complete. Because anatomy does decide performance, especially in Indian context.
4	8.	Lack of uniform level of understanding/interest/capability among the students in a given class.	With regard to the competency level boost, more than external stimuli, it is the self-realisation and convictions that a teacher, more than any other person in any given society, has an onerous, substantial and sub line role to play in shaping the generations to come that will enable automatic enrichment of the teaching potentiality.	
5	10.	Time factor	Train the teachers. Programmes – to update their knowledge.	
6	12.		Due recognition should be given to teachers who perform well. (open appreciation to the person concerned a part) Virtue should be rewarded. Easy and ready availability and infrastructure. In-college training, workshops made compulsory every month end of semester end. Experts talk on motivation and personality development atleast every year end.	
7	23.	Lack of proper infrastructure. Rigid rules and regulations Lack of academic freedom	Academic freedom Accountability Accessibility Indignity Attending seminar/conference/training programmes	

8	26	Even a sincere teacher gets influenced by other insincere teachers. Teachers who are negatively oriented needs to be counselled. Working atmosphere should be truly academic free from personal grudges.	Self motivation – demand from students for more knowledge would exert pursue on teachers to improve – frequent special refresher courses change of syllabus.	
9	28.	Lack of infrastructure facilities.	Good infrastructure facilities should be provided.	
10	29.	Enough books are not available for preparations. Lack of support from our colleagues More domestic work nowadays.	Attending more seminars and conferences.	Good project. Necessary for every teacher to improve their status and competency.
11	34.	Family related personal problems and other commitments.	Teachers must be appraised by students as was recommended by Ratnavel Pandian, Chairman of 5th pay commission. Any promotion and monetary benefits must be extended only on the basis of their performance appraisal of the students, which would improve the competency of the teachers.	Questionnaire is really very scientific.
12	41.	Indifferent attitude of teachers to work and work ethics. Mismatch between the remuneration and work done	There are lot of opportunities to enhance the competencies by reading and attending, seminars, conferences and self-study.	Very good. Certainly, the outcome would be so impressive and useful.
13	42.	Subject knowledge should be updated to the current event and future predictions Problems of bureaucratic bottlenecks in self-development programme. Refresher course should be conducted online instead of ASC programme/free internet services should be provided.	Self – assessment reports – semester wise. Student's assessment – semester/year wise to be potentially informed to teacher. Language and communication skill with personality development should be introduced and conducted periodically. Programme for eliminating ego and unhealthy competitiveness should be conducted once in 3 years	

14	44.	Lack of infrastructure Co-operative effect is missing	Increasing the reading habit at home	
15	46.		Organise faculty development programmes in the concerned subjects, leadership traits as a part of motivation of faculty members frequently. Visit the institutions of higher learning and have an interaction with the faculty members of those institutions adhere the best practices of that institution. Have an industry – academic partnership. Visit corporate houses and share concepts in the subjects related or beneficial to the industry, thereby the teachers will set rich experience in practical aspects (this will be useful in the faculty member to convert practice in to theory) students enjoy learning and competency level of the faculty will automatically enriched)	Capacity building
16	47	Time factor No innovate teaching methodology More procedures for academic improvement No proper recognition	Self – motivated Student friendly Freeness for teachers	
17	48.	Procedural barriers Personal barriers	Procedural barriers can be overcome by complying with the procedure strictly. But always it is not possible. Ex. Govt.'s permission to attend seminars prevent us from attending seminars. Involving in research work may develop us. Attending international conferences may develop us.	
18	50.	Lack of time Lack of freedom	Don't oppress them. Give liberty	
19	52.	FIP programmes are not encouraged Quality journals are not subscribed.		

20	53.	Inadequate facilities	Develop excellent knowledge Pay hike All rounded personality. Practicing pragmatism Tolerance in religion activities Core of experiences Dealing with self-confidence Evaluation by diagnostic method Measuring through point-scale method.	
21	54.	Regarding issue of books in the library Students who are not appearing for the internal test.	Attending seminars related to the subject area. Doing projects which are interdisciplinary.	
22	55.		They developed themselves by participation in seminars, conferences, presenting papers, publication and other academic activity	
23	57.	Promotions are not given when eligibility is there	Teachers should give their 100% for making the students to understand the subjects.	
24	61.	Freedom to work independently, time factor.	Self-confidence and hard work	
25	63.	Lack of teaching aids like LCD projector, computer etc. Conducting refresher courses for the sake of conducting them.	In each department, the lecturers and students must compulsory made to give seminars for other lecturers, qualified guests and students. HOD'S should conduct departmental meeting on academic matters every month. Principal must meet and discuss each department academic activities Proper teaching materials must be made to available.	
26	67.	A teacher working in a government college faces so many problems. The teachers has to work in a restricted environment where developing competency in difficult.		
27	68.	Partiality Getting permission to attend/join skill developing courses is very difficult.	Workshops Giving permission to attend those workshops conferences etc., Appreciation & recognition	

28	70	Lack of audiovisual aids inside the class room like internet. Evaluation of final examination papers is not done by us in autonomous institution. Rigidity (no freedom) in allocating internal assessment marks.	More freedom to teachers in planning curriculum and evaluation. Internet and other audiovisual facilities inside the class room. Academic tours	
29	72.	No. of working days are insufficient to complete the syllabus in depth.	Conduct moral instruction classes (workshop) for teachers to inculcate "job ethics"	
30	78.	There is wide gap between the teaching technology available and actually provided by the government for teaching.		
31	80.		Improving new techniques especially for the advance development of subject.	
32	81.	Infrastructure modernization Applying latest technology Giving equal chances to juniors.	Treating staff in genuine way. Buying latest teaching aids.	
33	87.	Inadequate amenities (ex. Dusty library) No assurance for dignity Autocracy of the bureaucrats over the academicians. Atmosphere which force to follow raw strategies ever for availing the genuine ideas.	Teachers in tertiary education must aware that competency in an important basic necessity rather an additional quality. Skill-development workshops to be arranged by the college itself. Stress management classes and personality development classes are required periodically. College kitchen is needed very badly to supply nutritious lunch. Dispency is needed to solve common health problems	Discover the truth and reveal the same plainly.
34	89.		Need sincerity and cooperation	
35	93.	Lack of facilities Not able to work in area of education	By awarding their work (no monetary benefits are essential)	
36	94.	Recognition is partial among teachers. More exposures (practical) to students be incorporated in syllabus. Personal	Recognition (awards), could be given to boost spirit.	Assessment of teacher competency

		cabins required for non interference in work. Personal amenities and facilities like computer, Internet is necessary.	Grades and points should be given for performance rather than for senority.	is the most needed solution to many hidden problems. More deeper analysis on their competency and measures to improve competency should be incorporated soon.
37	95.	Superior should delegate the work, involve everyone in group activity. Lack of communication reg. academic matters.	Compulsory training can be given on latest education technology/methodology. Organising faculty exchange programme Teacher enhancement programme Evaluation at the end of every year/ performance appraisal.	
38	96.	Lack of coordination, systematic schedules in staff department programmes. Lack of co-ordination with affiliated bodies other academic institutions.	Improving infrastructure facilities (computer, internet, journals, books etc) Acknowledging innovative and creative ideas even if it is from subordinates, work as team for the betterment of individuals and institution.	
39	98.	Lack of supportive staffs Absolutely no peaceful environment.	Infrastructure should be made available in Govt. College. Formalities in administrative procedures should be simplified to enhance their career advancement. Better opportunities should be provided to all	.
40	102.	A professionally sound teacher who is also a well wisher of students and solving students personal problems gets good impression and affection from all students. But other collegues who are jealousy on that teacher doing underground works for that teacher and unnecessarily giving problems to those students who praises that teacher.	Giving increments to only teachers who teach according to each student nature (ie., teaching not only for bright students) Teachers should be fired like software industries in private sectors when they did not get increment or best teacher award for more than 3 years. Best teachers AWARDS should not be given according to	

			present students suggestions only, it should be decided by OUT GONE students suggestions. Because students should not be affected by giving suggestions through intervals or any other means.	
41	108.		Periodical orientation is needed for the teaching community to update them. So orientation and refresher courses inside the campus is must for one teaching faculty. Teachers must be given all basic amenities to bring out the talents of the students, basic amenities means class room, language lab, computer internet facilities.	
42	36.	Lack of Infrastructure in govt. colleges		
43	110.	Lack of academic freedom to bring out the talents of the students.	Periodically the training programs with subject experts should be arranged.	Teachers were future life of the younger generation as well as the society. So, teacher must update themselves on daily basis. The higher education council and knowledge commission can design projects for the same.
44	112.		Training and seminars should be conducted periodically.	To improve knowledge teachers should update themself.
45	119.	Demand of supportive staffs, less conducive atmosphere many times/occasions, elaborate procedures to get permission, too much of inference in the schedule of work by colleges.	Opportunity should be given in rotation in order to understand the competency of staff and the efficacy should be weighed and positively motivated for enhancement. Periodic discussion would strengthen the outlook towards subject/staff and would enable to update knowledge and a healthy environment could exist.	Best topic as it is need of the hour in higher education. Good and best of luck.
46	33.	No support from the non teaching staff due to lack of staff.	Opportunities should be provided to get updated simplify the administrative procedures.	

47	49.	More paper work from the govt. side Too much restrictions Under staffed No motivational factor.	Freedom to undertake research work Orientation programme to teachers	
48	18.	Peace of mind, work free, good atmosphere within the department as well as the class room	Hard work, efficient presentation and sound and acceptable concepts, reliable information and opt teaching technical skills.	
49	22.	Lack of conducive environment.	Sufficient infrastructure, freedom of work, and impartial treatment on the part of higher authorities.	
50	43	Lack of efficiency on the part of students. Non-availability of latest edition books in library. More work load and more strength of students makes the teacher unable to give individual attention.	Latest books should be made available to the teachers. Teachers should be provided with individual PCS with internet connections Work load can be reduced to make the teachers to search for more information on the subject they handled.	
51	91	Cumbersome procedure in getting permission to attend seminar and conference.	Updating their knowledge. Freedom for expression. Accommodative for acceptance.	
52	14	Unable to get students interested in the language due to the admission system – lack of staff in the department no availability of audio visual equipments is the main draw back etc.		

From Table 4.20 it is evident that most of them felt the infrastructure facilities like availability of computers, internet connection, LCD, availability of journals and books were limited. Most female lecturers felt that lack of time, too many family responsibilities, lack of support from family members and colleagues , stringent norms for availing duty leave were the constraints. The strategies suggested for motivation and better expression of skill and enhancing competencies were to organize academic events with intellectual subject experts, self assessment by students made transparent to respective teachers, recognition and award for best performers, rules and regulation to attend seminars and conferences abroad and within India should be made simple, equal opportunities for all teachers in college development activities apart from curricular aspects. Pay benefits to be disbursed in time without delay.

CHAPTER 5

SUMMARY AND CONCLUSION

Institutions and organizations use competency models for various purposes. The generic reasons that remain valid across all users are to provide a way in which the concept of competency can be applied to organization needs, to understand the variables determining performance and their correlation to it, to enable the rapid deployment of competencies in an organization. A competency model should have two discussions. The type of competency and the level at which the competency exists. The mere presence of a competency does not result in performance, it is only when the competency is demonstrated as acted upon, that we have performance.

With liberalization and globalization of economic activities, the need to develop skilled human resources of a high caliber is imperative. Consequently, the demand for internationally acceptable standards in tertiary education is evident. Competency of teachers assumes a lot of importance in this context. In India however competency development and mapping still remains an unexplored process. During the past decade, there has been a growing interest in learning and competency-based systems in various areas of education, training, and professional development, especially in higher education. Competency-based education and assessment initiatives have been insisted by the UGC.

There has been a constant reminder to update teacher potential. This has become a challenging issue especially after the announcement of 6^{th} pay commission and the NAAC's Cumulative Grade Point Average (CGPA) for assessment. The stalwarts of higher education insist that the institutions of higher learning should foster a closer relationship between the "world of skilled work" and the "world of competent-learning". These demands for competency mapping of teachers which will have a telling impact on strengthening students' competencies.

As the saying goes “Destiny of a nation is determined in the classroom”, it is time to realize that the destiny of the classroom is determined by the teacher” thus imperative is the teacher competency.

Not much study has been done on competency mapping in higher education sector, thus the present study is ventured upon. Puducherry claim its pride for being the educational hub of south India, hence the study is to be carried out in Puducherry.

The study proceeded with the following objectives:

- To map the level of selected competencies among the target group in comparison with the selected social, economic, demographic and cultural variables.
- To analyse the gap between expected and actual level of competencies
- To delineate details on the constraints in professional advancement and suggest strategies to improve the competency level

This study was carried out in Bharathidasan Govt. College for Women, a NAAC accredited Autonomous College affiliated to Pondicherry University. This is the oldest and the only one Government run Women’s College in Puducherry. The student-staff ratio is 21:1. There are 110 permanent lecturers’ regularized by UPSC and 20 guest faculty. For the present study all the regular lecturers were taken into consideration.

A self administered questionnaire was set to elicit details on personal and professional competency. It consisted of three parts covering 1. EQ scale, 2. Self-assessment tool covering various competencies like communication, computer literacy, curriculum development, evaluation etc., 3. personal details. The EQ scale was a readymade tool standardized by Disha Counselling Centre, Mumbai in 2006 meant for assessing interpersonal relationships among colleagues. Pre-testing the tool was carried out and necessary modifications made accordingly. Distribution of questionnaire started on the 1st day of the college for this academic year the 25th June 2009. Until 9th July

2009, 81 questionnaires were received in fully filled form. The delay was due to superannuation of teachers, paper valuation, long leave etc. There was a attrition rate of 17 percent. Appropriate statistical tools (ANOVA), T-test, F-test, Factor analysis were applied to raw data using SPSS 16. Percentages and mean were used for basic interpretations. Illustrations were used to supplement the important findings.

The major findings of the study were:

Socio-Economic Background of the Teachers:

- About three-fifths (62 %) were female teachers and the rest males.
- Majority of them were Tamil speaking (79%) followed by Telugu speaking (11%) and Malayalam speaking (6%) and the rest Hindi or Urdu.
- Caste wise classification showed that around 52 percent were from backward communities followed by forward community (37%) and scheduled caste 11 percent.
- Classification based on religion showed that 85 percent were Hindus, followed by Christians (12%) and Muslims (3%).
- Around 52 percent of teachers were from joint family and the rest from nuclear families
- When the birth order of the teachers was computed about 46 percent were middle child, 33 percent first child and 21 percent last child.
- Marital status revealed that about 91 percent were married, 6 percent unmarried and a meager 3 percent separated or divorced.
- The distribution of teachers across faculties revealed that there was equal distribution of teachers in science departments (38%) and 37 percent in arts and humanities departments and 25 percent in commerce department. In total the college has 7 science departments, 7 arts and humanities departments and 3 commerce departments.

- On assessing the highest qualification about 63 percent possessed M.Phil, 33 percent Ph.D and a meager 4 percent Masters Degree. About 57 percent possessed additional degrees or diploma in addition to eligible qualification.
- Nearly, 41 percent had workable knowledge of computers and had mail ids.
- Majority of the teachers (84%) had teaching experience between 11 and 30 years in colleges. Around 9 percent with 31-40 years of teaching experience, and the remaining 10 percent less than 10 years.
- About 54 percent had most of the school education in English medium schools and the rest in vernacular languages like Tamil, Malayalam, Telugu and Hindi.
- About 50 percent of the teachers were educated from government schools owned by either the state or central board.
- Regarding under graduate (UG) education nearly 47 percent were qualified from government colleges, 44 percent from private institutions and the rest in the universities.
- The analysis on post graduate (PG) education revealed that comparatively a higher percentage (36%) were qualified from universities, followed by private institutions (33%) and 31 percent from government colleges.

Emotional Intelligence (EI):

- About 77 percent of the teachers came under the 2^{nd} grade of EQ with the scores ranging between 21-41, and 23 percent of teachers under the 1^{st} grade of EQ with the score value of 42-63. The 1^{st} level of EQ refers to highest level of interpersonal relationship in the work place.
- The SEV that were related to these scores were mostly between the age group of 53-62 years, males, Malayalam speaking, backward class, Hindus, joint family, middle born, married, from science departments, possessing only PG degree as highest qualification, those who did not possess any additional qualification, who possessed computer knowledge, having educated parents, both parents employed, with teaching experience of 31-40 years, and who had both their UG and PG education in universities. More the qualification better was the EQ.

- Teachers with additional qualification along with eligible qualification were better of emotionally. So also higher the years of teaching experience better was their emotional level.
- When the 2nd grade of EQ was compared with socio-economic variables it was found that teachers in their mid-life (43-53 years of age) were emotionally intelligent when compared with other age groups. Higher the age better was the EQ.
- Telugu and Tamil speaking teachers were more emotionally intelligent than the rest.
- The caste wise comparison showed that teachers belonging to scheduled caste and forward caste were emotionally intelligent compared to backward communities. When statistically analyzed there was a significant difference between caste and EQ.
- There was no difference with respect to type of family.
- On comparing the birth order with EQ it was observed that the last born or 3rd born were better of when compared to the first born or 2nd born.
- Lecturers from Arts and Humanities and Commerce subjects were highest in number in 2nd level.

Competency Level (CL)

- The results on factor analysis revealed three factors viz, 'teacher-taught index'; 'knowledge update index'; and 'out reach index'
- The first factor pooled all the competencies related to class room interaction with students, like communication skill, completing the curriculum, effective teaching methodology with around 36% variance..
- The second factor was computer literacy and updating the subject knowledge.
- The third factor was participation in academic events, publishing research papers, and participating in co-curricular activities.
- For the statement on "opinion on pay and promotion based on teacher performance appraisal" there was a fair response. Scores obtained for

"participation in seminars, conferences, publications and other academic activity" was the least.

- Mean scores obtained for EQ and CL by the HoDs was slightly higher than the other lecturers. Heads of Economics, Corporate Secretaryship, Computer Science, English, Hindi, Commerce, Physics were comparatively higher. Only a negligible difference was noticed.
- The highest EQ level was obtained by Chemistry department members followed by English, Corporate Secretaryship.
- Most of the departments secured good scores ranging between 4 and 5 in CL
- Language departments secured highest mean CL, followed by Science Departments, Arts Departments and lastly the Commerce Departments.

Competency Gap (CG)

- The gap ranged between 0.83 and 3.18. The mean gap was 1.54. The gap was wider for participation in seminars/ conferences, publications, computer literacy and performance linked pay.
- The gap was less for competencies related to class room interaction like class preparation, teaching methodology, communication skill, completion of syllabus etc.
- The gap between the top scorer and least scorer among HoDs was very high with 24 points. However the gap was wide with 2.05.

Constraints in Fulfilling the Academic Demands

- Lack of academic freedom
- Lack of technical skill like using computers
- Time Factor
- Rigid rules and regulation
- Ill equipped library
- Mismatch between remuneration and work done
- Procedural barriers

- Journals subscription is very minimal
- Refresher courses do not cover the intellectual needs of teachers-the curriculum is stale
- Partiality and nepotism of the senior teachers
- Lack of coordination from the office and the department
- Too many family commitments
- Lack of conducive work atmosphere
- Intra departmental ego clashes
- Administrative constraints
- Transfer threats demotivates the energy
- Lack of scope for research work

Strategies to overcome constraints

- Need based faculty development programmes
- Workshops on computer applications for teachers
- Subscribing for online journals
- Procedure for seeking permission to attend academic programmes to be made simple
- Getting feed back from students on teacher performance and to be made transparent
- Performance based pay
- Impartiality of the seniors among juniors
- Imbibe a sense of accountability and commitment towards the profession
- Encourage research projects
- Workshops on developing soft skill should be arranged by the colleges
- Amendments made to rules and regulation regarding teacher benefits should be circulated to individual teacher.
- Recognition should be given to teachers who perform well academically which would motivate the other teachers.

Conclusion

Majority of the teachers were emotionally intelligent and also the competency level was higher only with a negligible gap. However, the constraints faced by the teachers in fulfilling the academic demands were high. More opportunities need to be given to teachers to update their functional knowledge and skill. The curriculum in refreshers courses and orientation programme needs to be revamped depending on the demand. The formalities to seek permission to avail duty leave, to present papers needs to be simplified. Teacher evaluation system needs to be strengthened, identify the performance gap in a comprehensive manner and implement strategies in a fair manner. The individual teacher should be intimated about his/her competency and performance level which would enthuse to move to the next level.

Suggestion for future researchers

Competency mapping can be done in an extensive manner in all colleges covering a wider range of attributes. This would help to assess the situation and aid in important policy decisions. The assessment can be done from the students and superiors and compared with self assessment.

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A request…..!

Kindly fill up the enclosed questionnaire which is a part of my project on **'Competency Mapping of Teachers in Tertiary Education'**. Please think seriously about each statement before responding to it. It is possible that you may have never found yourself in some of the situations or you may feel that none of the options indicate the way you would feel or behave. Nevertheless, I urge you to imagine yourself in such situations and tick the answer closest to what you would do. There are no 'right' or 'wrong' answers. Remember it is crucial to answer honestly. Do not omit any question.

Yours co-operation in this is most appreciated.

Thanking you,

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Lecturer in Home Science
Bharathidasan Government College for Women
Puducherry 605 003.

QUESTIONNAIRE TO ELICIT INFORMATION ON TEACHER COMPETENCY

I. Emotional Quotient: Select any ONE by putting tick mark

1. You have been superseded promotion by a colleague who you think is not as good as you are. So you…
   a) …decide she/he was probably lucky and ignore the matter
   b) …feel bitter about it and lose your motivation
   c) …talk to your colleagues to see what can be done to improve your chances next time.

2. You find it hard to work in a group because it limits your freedom to do things your own way.
   a) Most of the time
   b) Rarely
   c) Sometimes

3. As a head of the department, you are held responsible for your colleague's bad performance. So you…
   a) …tell your superiors that it's all the fault of the people in the department
   b) …discuss the matter with your dept. members and plan how better it can be done in future.
   c) …take responsibility for the bad performance

4. You can sense your colleagues feelings
   a) Most of the times
   b) Rarely
   c) Sometimes

5. A colleague makes some damaging comments things about you. You…
   a) …ignore it
   b) …try to understand why he did it.
   c) …pay him back in the same coin

6. You freely express your feelings at work
   a) Often
   b) Rarely
   c) Sometimes

7. Your boss asks you to come to college unnecessarily, during weekend. You…
   a) …don't turn up and give an excuse
   b) …explain to your boss why you think it is unnecessary
   c) …comply

8. You talk freely about your personal life at work
   a) Often
   b) Never
   c) Rarely

9. In a semester end meeting with students, you gauge the situation by…
   a) …what they tell you
   b) …their body language as well as what they say
   c) …their immediate reaction to your suggestions

10. You always try to criticize a subordinate's behaviour
   a) Most of the time
   b) Rarely
   c) Sometimes

11. In the middle of a crucial meeting a heated debate starts. How do you react.
   a) …keep quiet
   b) …try to defuse the situation by mediating between everyone
   c) …take the side of the group you think is right

12. You are unable to complete the syllabus within the deadline and the angry students criticize you. You….
   a) …listen to them and explain them the reasons for the delay
   b) …become angry and retaliate
   c) …just listen

13. When your work is criticized, you….
   a) …feel angry and defensive
   b) …lose your self-confidence and feel worthless
   c) …try to objectively view the criticism

14. It is important for you to get recognition for your work
   a) All the time
   b) Never
   c) Most of the time

15. You work less when you are a part of the group than when you work alone
   a) Agree
   b) Disagree
   c) Sometimes

16. Your colleague dumps her/his work on you and leaves the college early. You…
   a) …get irritated, but do it anyway because you might want to have the favour returned some day.
   b) …do a shoddy job so that she/he doesn't repeat it
   c) …explain her/him of you can't do it

17. Your co-workers confide in you
    a) Often
    b) Occasionally
    c) Rarely

18. When you have to work with someone you dislike, you…
    a) try to remain objective
    b) ignore him entirely
    c) listen to his solutions but do what you want

19. One of your subordinates has come up with an excellent solution to a problem at work. So you…
    a) …sit tight on the solution and don't tell anyone about it
    b) …forward it to your superior and claim credit for it
    c) …praise your subordinate and openly acknowledge his efforts.

20. Your superior is behaving indifferently with you. You…
    a) …ask her/him if you've offended him in any way
    b) …try and guess the reason for her/his behaviour and act accordingly
    c) …ignore it and hope that she/he will return to her/his normal self soon.

21. You seek a help from your colleague whom you dislike
    a) Occasionally
    b) Rarely
    c) Often

II. **Self Assessment on selected competencies - tick any ONE that befits you.**

Sl.No	Competencies/domains	Unsatisfactory	Satisfactory	Average	Good	Excellent
1	Preparation for the class					
2	Punctuality in conducting classes.					
3	Planning and completion of the syllabus on time.					
4	Communication skill in English: the ability to exchange information with administrators, colleagues, students and others- clarity of presenting ideas, concepts, explanation,etc					

5	Clarity of Expression like language and voice					
6	Methodology used to impart the knowledge (Use of blackboard, charts, teaching aids, subject gateways, websites, etc.)					
7	Active teaching methodology used like group discussions, remedial courses, assignments and seminars, field visit, quiz etc					
8	Involvement in Cocurricular activities.,like sports, culture, NSS, NCC, field trips etc.					
9	Availability to students outside class hours for clarification, counseling, career guidance, etc.					
10	Role as a leader Mentor/ Motivator/Guide/ Facilitator/ Counselor					
11	The evaluation of internal tests/external examinations/assignments were graded fairly					
12	Knowledge of subject area					
13	Knowledge of operating computers					
14	Confidence in designing curriculum					
15	Confidence in new course development					

16	Professional growth – participation and paper presentation in academic events, publication, etc.,					
17	Rapport with students					
18	Record maintenance like internal marks, attendance, special requests by students if any..					
19	Recommendations of the 6^{th} pay commission on pay matters					
20	Your opinion on pay and promotion based on teacher performance appraisal					
21	Participation in seminars, conferences, publications and other academic activity					

III A. List the constraints/ problems that teachers face in fulfilling the work demand, academic performance and in developing competencies

III B. Give your ideas on improving the competency of the teachers

III. General information of the teacher

1. Name (optional) :

2. Age in years (completed years) _____

3. Sex
   (a) Female _____
   (b) Male _____

4. Mother tongue
   (a) Tamil _____
   (b) Malayalam _____
   (c) Telugu _____
   (d) Other specify _____

5. Caste
   (a) Forward (FC) _____
   (b) Backward(BC) _____
   (c) Scheduled (SC) _____

6. Religion
   (a) Hindu _____
   (b) Christian _____
   (c) Muslim _____
   (d) Others specify _____

7. Type of family during your formative years
   (a) Joint _____
   (b) Nuclear _____

8. Your ordinal position in the family:
   (a) First Child _____
   (b) Middle child _____
   (c) Last child _____

9. Marital Status:
   (a) Unmarried _____
   (b) Married _____
   (c) Widow/Divorcee/Separated _____

10. Department :

11. Highest degree possessed: PG/ M.Phil / Ph.D

12. Additional qualification if any:

13. Email Id if any :

14. Education of parents: Mother_____

Father_____

15. Employment status of parents: Mother: Employed/ Unemployed

Father: Employed/ Unemployed

16. Designation: Lecturer regularized_____
Guest Lecturer _____

17. Total years of teaching experience _____

18a. Medium of school education for most of the years : Vernacular _____

English _____

18b. Type of school for most part of school education

i. Schools run by christian missionaries
ii. Government school-State Board
iii. Government school- Central Board
iv. Private schools

18c. Were you a day's scholar or hostelite during school education for most part of school education

19a. UG Education: University_____
Government College _____
Colleges owned by Christian missionaries_____
Other Private colleges_____

19b. PG education: University_____
Government College _____
Colleges owned by Christian missionaries_____
Other Private colleges_____

IV. Any other suggestions related to the title of the project