Chapter - I

Conceptual Framework and Theoretical Background
# CHAPTER – I

CONCEPTUAL FRAMEWORK AND THEORETICAL BACKGROUND

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Students aspiring to go for higher education as well as professional education undertake chemistry as a subject of study. Given the nature of the subject the performance of Higher Secondary Students in Chemistry when compared with other subjects is not found to be impressive. It is also a common fact that Chemistry is one of the subjects of study in which students fail at the Higher Secondary School level. Besides other factors, Chemistry Teacher Competency is considered to be one of the factors attributing towards less impressive performance of students or their failure in Chemistry.

At Higher Secondary level the Postgraduate Teachers in general and Chemistry teachers in particular face a lot of problems. They are unable to give individual attention to their students. Every teacher is interested in completing the syllabus within the stipulated time. So, teaching becomes heavy, mechanical, boring and mostly involves reading and sometimes teaching. This type of situation creates an unpleasant classroom climate and makes the students disinterested in learning at the classroom level. Teachers do not seem to take effort to use innovative methods to initiate interest in learning of chemistry by students. So, the investigator wants to find out whether these assumptions are correct. If at all correct what are the measures to be taken?

One cannot study the teaching competency of chemistry teachers in isolation. It must be analysed in a broader perspective of teaching.

1.4. LOGIC OF THE TESTING PROPOSAL

Everyone wants qualified and competent teachers for the schools. Qualified and competent teachers are necessary for students to receive the optimum benefit from schooling. Indeed, good teachers are more important than modern buildings, up-to-date audiovisual equipments and even computers. The logic of the teacher testing position is as follows:
1. In order to teach, a person must know the subject he or she is teaching.

2. We can design and make available valid tests to measure the knowledge of a teacher (that is, general knowledge, subject matter knowledge, and professional knowledge).

3. As the learning of the students increases, the overall quality of the school will improve, parents and other citizens will be satisfied with the schools, other talented people will enter teacher education programs, and the overall status of teachers and school will improve.

Competency Testing refers to the assessment of knowledge and of performance judged necessary for a specific situation. A competency test for teachers refers to a test developed to measure the minimum knowledge and/or skills deemed necessary for adequate performance in the classroom.

Knowledge of teaching methodology and knowledge of child development are not often addressed in the objectives for most competency tests. By competency testing the education profession could be enhanced. For instance, results of teacher competency testing are used to develop, reevaluate, revise and preserve an in-service teacher education program. Improved teacher preparation programmes and in-service efforts will upgrade the teaching profession.

1.5. THEORETICAL BACKGROUND

The ultimate criterion for judging a teacher is the improvement in the education of the millions of learners. In other words, whether it is the Teacher Factor (T Fac), Training, Teacher Behaviour (TB), or Teaching Strategies (TS), these should result in developing the desired learning outcomes (L out) in learners and an optimum development in cognitive, affective, and psychomotor domains. Concrete evidence of
such growth and development should form the basis of judging the effectiveness of a teacher.

"Schematically the emerging structure according to Passi (1988) is represented as:

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<th>T Fac</th>
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<td>Organismic</td>
<td>Teaching skill</td>
<td>Physical</td>
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<tr>
<td>Personality</td>
<td>Teaching competence</td>
<td>Cognitive (mental)</td>
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<tr>
<td>Subject competence</td>
<td>Teaching style</td>
<td>Psychomotor (skill)</td>
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<tr>
<td>Professional education</td>
<td></td>
<td>Affective (socio-emotional)</td>
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Training

- Micro teaching

TS

- Teaching techniques
- Teaching models
- Teaching approaches
- Models of teaching”(p^{1011})^{18}

Five major relationships are envisaged from the above structure. One of the major relationships is Teacher Factor affects Teacher Behaviour that in turn affects Learning Outcome of students.

Based on this relationship the present study is formulated. This study tries to investigate the Teaching Competency, in particular, of Postgraduate Chemistry Teachers in relation to Students’ Achievement. Since personality affects the Teaching Competency, Self-Concept and Job-Satisfaction are also investigated.

1.6. SELF-CONCEPT

Psychologists and educators have emphasized that total effectiveness of teaching depends, by and large, upon the self-concept and emotional adjustment of teachers. Emotional adjustment, as a variable is dependent on the self-concept of a person. Viewed in this light, both self-concept and emotional adjustment as concepts may be regarded as significant variables for determining task orientations and success in various fields of work.
The concept of self has its origin from the personality theories. Very closely related to the nature of personality is the concept of self, which is gaining increasing significance in modern psychological forces innate as well as, environmental. The individual perception or view of himself is known as his self-concept. The part of the environment in which he is involved is known as his phenomenal self and the rest of the environment of which he is aware or to which he responds is his phenomenal environment or perceived environment. The self-concept is what the individual thinks of as his actual life.

Patnet (1996) defines Self-concept as, “The self concept, which the individual is most likely to possess upon which he places the highest value for himself”. Guller (1967) gives an operational definition as, “Subjects responses to questionnaires composed of self referent statements relating to interpersonal relationships and social desirability”.

Self-concept means one’s own image in ones’ own eyes and it is very important in decision making and decision implementation. It is an important mental apparatus of a teacher, which guides, directs and influences him/her at every step of his/her life. It helps in logical ability, reasoning, decision-making, acquisition of good speed, efficiency, accuracy, and professional competency.

Self-concept is a dominant element in personality pattern and the measurement of self-concept becomes very essential. If we want to understand the personality of an individual, to understand and predict his/her life adjustment and success and failure, one cannot proceed further without knowing this self-concept.

Chhaya (1974) has stated that effective teachers have significantly better personality adjustment and more favorable attitude towards teaching than ineffective teachers do.
1.7. JOB-SATISFACTION

Job-satisfaction refers to the way one feels about events, people and things in his working situation. According to Blum (1956), job satisfaction is based on "the results of various attitude the person has towards his job, towards related factors and towards life in general" (P. 121)\(^9\).

Hence job satisfaction is the pleasant and positive attitude possessed by an employee towards his/her job as well as his/her life.

Various investigations show that when a person is satisfied with his/her work the employer profits and the nation prospers. This is the reason why satisfaction in the job becomes a serious consideration for all. The teacher can remain satisfied in his/her job only when opportunities for the satisfaction of his/her social and ego needs are provided. Satisfaction is an emotional response.

Job-satisfaction may be defined as a 'pleasurable or positive emotional state resulting from the appraisal of one's job or experience'. It is also said to be a mental attitude of an employee towards his/her job. This may be again defined as the result of various attitudes a person holds towards his/her job, towards related factors and towards life in general. Job-satisfaction depends on many factors like personality, intelligence, influence of environmental factors, family size, age, sex and experience.

Teaching is an immensely rewarding profession. Love of knowledge, devotion to duty and selfless service to humanity are the higher values of life being achieved through this profession. Unless and until one feels satisfied in his/her profession he/she cannot execute the values of his/her noble profession.
1.8. CONCLUSION

The competency of a teacher depends, then, on different kinds of factors and it is vital that they may be distinguished clearly from one another. They are (i) Pre-existing teacher characteristics, (ii) Teacher effectiveness, (iii) Teacher performance, (iv) Pupils’ learning experience, (v) Pupil learning outcome, (vi) Teacher Training, (vii) Individual pupil characteristics.

From the review it is evident that different aspects of teaching and Teacher Behaviours have been explored in the context of teacher factors. It also appears that researchers have tried to arrive at general descriptions of teachers, and to identify the skills of teachers specific to subject, namely, Physics, Mathematics, Hindi, English and Social Science. There is a need to conduct such studies related to these subjects as well as others at various levels, so that one can arrive at a generalization.

Hence the investigator raises the following research questions to be answered in the present study:

i) What is the level of Teaching Competency of Postgraduate Chemistry Teachers?

ii) Do the Self-Concept and Job-Satisfaction of Postgraduate Chemistry Teachers affect the Teaching Competency?

iii) Is there any correlation between Teaching Competency and the Achievement of Students?

iv) What are the factors or variables affecting Teaching Competency and Achievement of Students?
1.9. REFERENCES


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