CHAPTER-IV

TEACHERS PROBLEMS AND THEIR ATTITUDE

Science and technology was a great human enterprise. It was self-growing, self-pervading, self-accelerating and self-correcting enterprise which originated in the collective curiosity of man, since time immemorial. Therefore, science and technology had to be treated as one of the important curricular areas. Open mindedness, curiosity, inquiring into the basis of all things, collection of data, demand for verification and proofs statistical reasoning, acceptance of unwarranted conclusion and willingness to change one’s opinion in the light of new evidence were the ferments which characterize the scientific enterprise. Every aspect of learning science had to be inculcated interest in learning science.

Science and technology played a decisive role in equipping a learner for understanding, interpreting and dealing with, in a non-scientific way, various facts and phenomena around him. Education in science and technology had to be aimed at developing well defined abilities in a cognitive, affective and psychomotor domains such as spirit of inquiry, creativity objectivity, courage to question and aesthetic sensibility.

Therefore, curriculum in science and technology had to be designed, so as to enable the learner to acquire problem solving and decision making skills and to discover the relationship of science with health, agriculture, industry and other aspects of daily life. Scientific concepts and skills had to help an individual to question the existing
beliefs, prejudices and practices prevailing in society and acted as a liberating force.

Knowledge of science was superior to all other types of knowledge while other knowledge generally does not attributes of validity and reliability but scientific knowledge possesses these qualities. It was a logically related and clearly arranged knowledge of items about which, any one can experiment and apply test for validity and reliability. Science was the systematic knowledge of a particular thing. Moreover, the principles of science are clear, definite, broad-based, valid pure, real and reliable in all respects. Thus, science now dominated almost every field of our activities.

It was essential for every individual to have a correct knowledge of science. Thus, science teacher had to take the responsibility in such a way that each child was inspired to participate actively in the economic reconstruction of society. And also they had to understand that development of modern society depend upon the development of science and technology. They had to try to develop themselves technologically, so that ethnomological efficiency and high level competence are developed in them and they may be able to enjoy maximum advantages of science in their daily life and in turn they could transfer such kind of scientific attitudes to their students.

It was also fact that the most important factor in the contemplated educational reconstruction, was the teacher, the teachers' personal qualities, attitude, his educational qualifications, his professional training and the place that he occupied in the school as well as in the community could play its role in the reconstruction of the contemplating society.
Therefore, for an effective and efficient teaching of science, a well equipped science laboratories are required and also need well qualified science teacher. For the quality of education depended mainly upon the quality of the teacher and not on the material facilities only. Thus, science teacher should be trained in modern methods and techniques of science teaching of different methods and planning of lessons, laboratory organization, preparation of instructional materials, etcetera.

The first requisite for the science teacher was that he should have thorough grasp knowledge of the subject matter that he has to teach. The teaching should be pupil centered rather than subject or teacher centered. The approach should be inductive. Adequate opportunities should be provided for the individual laboratory work by students. He should keep himself in touch with the latest development in science. Teaching learning process should be a cooperative endeavor of the teacher and the pupils.

However, the continued failures to recognize and reward merit, salary scales, and transfer policy which always kept teachers below the margin of subsistence had all conspired to bring about a sense of frustration amongst science teachers. The present study has made an attempt to explore the various responsibility factors and its effect particularly the attitudinal and behavioral changes.

In Manipur, primary and secondary schools, science teachers were really handicapped to achieve the curricular goals and to teach the subject as per nature of the science. In spite of their best ability and effort due to lack of minimum facilities for teaching science, it became difficult on the part of a teacher to do justice for the subject. Therefore, teaching science
at primary and secondary schools could be given priority in respect of special training for the teachers. Equipping the school with demonstration room cum laboratories and different apparatus and equipments for demonstration classes which would facilitate the joyful learning of science topics by the learners.

In most of the schools science teachers were facing a lot of problems like, non-availability of models, charts, demonstration materials due to non-availability of government funds. And it was also found that some teachers who were teaching science in primary and secondary schools never had any fundamental knowledge about the teaching of science and therefore they needed more training and also to possess scientific attitude to enhance outgrowth.

On the other hand, the attitudinal changes might have brought for reaching consequences not only on the subject teachers but towards the students and the management. Because, attitude which was relatively stable and enduring predisposition to behave or react in certain ways towards person, objects or issues. It were tendencies to respond to people, institution or events either positively or negatively.

In other words, attitude had its relativity with the cognitive, effective and behavior component of the teachers, more particularly with the science graduate teachers. The present study made an attempt to explore the attitudinal aspects, responsible factors and problems faced by the science graduate teachers of the valley districts of Manipur. The study became more pertinent in maintaining the quality of education which had been emphasized by Education Commission 1964 and 1986, in view of the national development of our country.
Attitude might also be thought of as a bent of mind or behavioral pattern that develops personally consistently over a long period of time. In course of one's interaction with his immediate and remote environment. Attitude being an integral aspect of personality were neither of uniform equality, nor the result of physical development and maturation.

Attitudes were acquired and people acquired attitude through interaction with social objects, social events or social situation. It could be altered or maintained. In this regard, all types of learning could provide basis for the acquisition of attitudes. It was also highly personal and subjective in nature and highly interrelated.

Attitude possessed specific referent and these references might be concrete objects but might be distinct reference, such as economic problem, political problem, and social problems and so on. It changes with time and situation because human attitude were based on evaluative concepts in regard to the nature of the referent object and consequently motivated behaviors were produced.

It was situation specific and were relatively stable and lasting. The more central attitude was more definite. It was partly rational and partly emotional. Attitude might be desirable or undesirable depending upon how they were viewed by the culture in which the individual lived. In this regard, learning process always played an important role in the formation of attitude. Formation of attitude of an individual towards a certain object event or other individuals depended upon his experience with them.
A person's attitude was greatly influenced by his position related to others. People might act contrary to their attitude. It included beliefs but not all beliefs were attitudes. It was not permanent or stable. It might change and could be influenced by environment. It operated in specific behavioral patterns. It could be directly observed but could be inferred from overt behavior verbal or nonverbal.

Attitude and interest were closely related to each other. Interest generally meant a positive or favourable feeling towards something but attitudes might be positive or negative. Attitudes differed from culture to culture. It might be conscious attitude or unconscious attitude.

Keeping the above points in view the investigator considered it important to explore the various responsible and the areas concerning the attitudes of the teachers. It might be related to the emotional problem, administration, curriculum or the areas relating to social problem, political problems, or lack of interest because of various economical responsible factors.

In order to enable to study the problem in depth and explore the various responsible factors, the investigator had selected 400 science graduate teachers in the valley districts of Manipur. The valley districts were Imphal East, Imphal West, Bishnupur District and Thoubal District. The study was confined to the valley districts, out of a total of nine districts in the state. The remaining districts were based mainly on hill areas. Those hill districts were Chandel, Chuchandpur, Senapati, Tamenglong and Ukhrul.
The number of teachers were selected out of a total of 29,562\(^1\) teachers of all the categories excluding pre primary under different management. In addition, out of a total of 855\(^2\) science graduate teachers, the investigator selected teachers belonging to Junior high schools, high schools and higher secondary schools, 400 Science graduate teachers were selected on a sampling basis. The selection was made on random basis but confined to valley areas.

Another important factor for including Primary or Post Basic Schools was because of the fact that science graduate teachers use to teach science lessons in these schools irrespective of class structures. For instance, a science teacher used to teach even III standard in science lessons. It happened not only in valley districts but in the hill districts also. Another probable factor might be lack of training to the science graduate in this teaching learning system. Of course the ratio between the untrained and trained science teachers was not large. However, the pertinent question was whether the trained science graduate teachers teaching were teaching in the schools as they had been trained.

In hill districts the condition became worse. Science lessons were taught as reported by the teachers who did not offer science in their career. In short, from both valley and hill district it could be stated that it was due to lack of science teachers in Manipur. Fewness in science teachers had affected the condition of schools, not only in hill districts but also valley districts.

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\(^2\) Source: Directorate of Education (S).
Lack of proper scientific equipments in the schools might be another factor. In one sense, the disbursement system in the distribution of scientific equipment in the school was found not rational. On the other hand, the teacher after getting training, were found not utilizing the equipments properly in some schools. These might have been resulted from various factors.

For instance, it could be because of the lack of interest of the teachers or lethargic nature of the teachers or communication gap amongst the teachers and headmasters or Principals. Ineffectiveness in their administration and management of the headmaster or Principal or the managing body could have created problems and it might have resulted to serious effects. It might also be due to lack of incentives and lack of infrastructures. It might also be because of frequent transfer and posting of the teachers concerned.

Promotional delay and seniority placement or subjugation might also have been contributed in the lethargic attitude of the teachers. On the other hand, it might also be because of the defect in the selection procedures at the time of appointment of teachers. For instance, selection of a teacher who did not like teaching profession, but appointed and bound to be a teacher might be another factor. In this way, there might be many responsible factors which might have affected the attitudes of the teachers, in the classroom, so on and so forth.

In order to explore and ascertain the real problem, the investigator had administered a well prepared and standardized questionnaire schedule to 400 science graduate teachers. The Questionnaire Schedule was standardized after its application for the second time to the 50 science
teachers who underwent training in the Government D.M. College of Teacher Education and also college teachers of Central College of Agricultural University, Manipur. The Questionnaire Schedule consisted of 50 questions, out of a prepared schedule of 70 questions.

The area covered in the Schedule, apart from others, on the preparation of the topic by the subject teachers; availability of the text books ahead of the beginning the session; workload; promotional system of the students in the next higher class even though they secured poor marks; heavy syllabus which was difficult to cover during the limited period of class hours, etcetera.

Another area covered was on the arrangement of the in-service training programmes including syllabus; the content of courses envisaged in the syllabus which was apart from the real life situation; lack of comprehensiveness of the syllabus; difficulties faced in teaching the subject more particularly on the high school syllabus which was quite apart from the earlier ones and improper and in sequential arrangement of the topics.

The next area was on non-existence of laboratory room and lack of facility in the laboratory room, more particularly on equipment, and other infrastructures like working table, benches etcetera. Unavailability of charts, diagrams, model, specimens etcetera, basing on class wise structure etcetera, were the important aspects to be thought of the present study.

Availability of the journals in the school library, reference books; teachers’ guidebooks or handbooks for teaching the students in the class,
were also another area covered in the Schedule. In addition, hesitation of the students to attend classes; unmindful of the students in the classroom, hesitation to interact with the with science teachers in the class, forgetting of the previously taught topics resulting to the lack of understanding of new topics, attending the class without completing home work, etcetera needed to be examined.

Difficult to help each student in the classroom. Non-availability of provision for studying science outside the classroom was considered for examining. Difficult to organize co-curricular activities in its attempt to relate it with science with other subjects, faced difficulties in preparing questions for a test, faced difficulties to evaluate the non-scholastic areas, competency of the learners, non-availability of the ready made diagnostic test to know the learning difficulties of students in science etcetera, needed to be examined.

Another area was, on any of the problem faced by the science teachers in the teaching learning process, say for instance, in the content of the written according to the child’s needs, satisfaction with the manner of presentation and explanation written in the text book, problems in its application in the lecture cum demonstration method, shape and size condition of the black board, examination system, relationship with students, relationship with the head of the institution, transfer and posting, satisfaction with teaching profession, promotional problems and any other personal problem which affect teaching learning system which also might affect the attitude of the teachers.

The problems faced by the school science teachers which affected their attitude was shown in the different tables of item wise analysis of
the problems. The impact of school syllabus and curriculum towards the attitude of the science teachers was another area for study. The reason for study the relative importance was because of the fact that it acted as a pivot in organizing educational effort on a more manageable basis and was undoubtedly the heart of the school. It was futile to talk how and when to teach without first deciding what to teach. The present era was the century of explosion of knowledge in science and technology. There was an increasing need for scientists and technologists. The expectation and aspirations of the people were also increasing. Educating our future major generation to meet the needs was the responsibility of the school, young scientists and technologists were to be shaped and moulded in school.

Therefore, while framing the curriculum, it must be planned and administered to provide pupils continuous as well as sequential experience from the beginning of the schooling; to approach science conceptually rather than factually as well as with somewhat less emphasis on the technical application of science; to use those methods of instruction which familiarize students not only with the nature of scientific enterprise but also with various processes of science which lie at the heart of scientific method; to provide deeper insights into the scheme of the structure of science that is its philosophy, history and methods of inquiry; to provide effectively for individual difference abilities needs and interest; to make maximum use of local skills and resources; to provide for built in mechanism which provide for its continuous and critical reevaluation.
In achieving the above mentioned criteria experimental work, workshop, projects on maintaining aquarium, collection of leaves, making a camera, etcetera, visiting to a zoological gardens, power houses, factories, etcetera, fitness, filmstrip and epidiascope. making models and charts, excursions to country side, localities could be kept in mind.

On the other hand for inculcating the ideas and developing the knowledge of the students, co-curricular activities might also be included for those who show a particular interest in them in joining and organizing science club which covered activities such as hydro-electricity, hobby club including collections, photography etcetera and reading groups like reading and discussing science booklets.

Amongst the journals, “Rethinking Science Education” could create open mindedness, a desire for accurate knowledge, confidence in procedures for seeking knowledge and the expectation that the solution of the problem could come through the use of verified knowledge.

The sole responsibility of developing scientific attitude among the students, had been lying on the teacher who could manipulate all the situations to instill in pupils the characteristic features of scientific attitude and at the same time present himself as an example to the students for his intellectual honesty, respect for other point of views, unbiased and impartial behavior in his dealings and the like. This will create a favorable and permanent impression on the students to adopt the same attitude and permanent impression on the students to adopt the same attitude which their teacher had. A large majority of the schools were of
the view that an enthusiastic teacher could help in developing the scientific attitude through the curriculum.

In addition to the above stated factors which influence the attitude of the teachers in the classroom situation, there were some government schools in the valley area more particularly, in Imphal west and Imphal east districts run by the government, wherein there were number of teachers for five or six students in the entire schools, in some particular classes.

For example, in (1) Shyamashakhi Girls' High School, Imphal, (2) Heirangoithong Girls High School, Heirangoithong, (3) Kwakeithel Girls High School, Kwakeitel, (4) Wahengbam Leikai Government High school, Imphal, (5) Modhu Girls’ Junior High School, Keishampat, (6) Thangmeiband Khoyathong Tombisana High School, Thangmeiband, (shown in Plate No.1, page 147), Kwakeithel Boys Junior High School, Kwakeithel, Thokchom Keishamthong Girls’ High School, Imphal etcetera, there were enough teachers with less number of students in Imphal west district. In such situation the attitude of the teachers could be varied.

Consequent upon the fewness in number in the student population some of the Government schools like, Tombisana High School, Imphal, Thangmeiband Girls High School, Imphal etcetera, were abolished by the Government Policy vide order no: 2(8)/1/96-CE(H/S), dated the 21st January, 2004\(^2\) which stated that, “it has been experienced that there are many schools under Education(S) Department ,Govt. of Manipur where there is no adequate number of students in the schools for the last few

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\(^{2}\) Government of Manipur Secretariat, Education Department (School Section), Order No: 2(8)/1/96-SE(H/S) Pt, dated the 4th Sept.,2004.
year”, “teaching and non teaching staff as per the staffing pattern of the respective schools have been made from time to time even there is no adequate number of students in the schools” and “the State Government has taken steps restricting appointment on direct recruitment, as such, there arises the need of rationalisation of the posting of teachers in the schools and amalgamation of schools where there is inadequate number of students in the schools and Junior High Schools”.

It was therefore decided to amalgamate in principle some of the Schools under Education (S) Department, Manipur as under with immediate effect. However, in partial modification of this order the name of Tombisana High School was again changed to Thangmeiband Khoyathong Tombisana High School in public interest with effect from the 4th Sept. 2004.

Similar other conditions occurred in Imphal East, like (1) Imphal Morning High School, (2) Wangkhei Girls High School, Wangkhei, (3) Raja Dumbra Singh High School, Nongmeibung, (4) Khurai Girls High Scool, Khurai, (5) Wangkhei Junior High School, Wangkhei (shown in the Plate No.2, page 149), Eastern Girls High School, The Meitei Mayek High School, Imphal, etcetera, where the number of students were also found very few. Such conditions were also occurred in the case of other districts, like Thoubal district and Bishnupur district.

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3 Government of Manipur Secretariat: Education Department (School Section), Order No:2(8)/1/96-CE(H/S), Dated the 4th Sept.,2004.
4 Source: Concerned schools.
Photos – Different Schools visited in Imphal East District

The reason for fewness in number in attendance amongst the students population in the government schools must be varied. On the other hand the mushroom growth of the private schools and missionary schools attracting the parents was another factor although they charged high amount of tuition fees. The whole picture required another study which could explore all these problems and find out solutions. The present study would not cover these areas. What was concerned was on the problems affecting the attitude of the teachers although it attributed to the attitudinal changes of the teachers. It did not mean that all the government run high or higher secondary schools had been decaying but the condition of some such school remain precarious due to lack of supervision and inspection and lack of timely attention to be paid by the government.

On the other hand, the condition of the Secondary and Higher secondary schools run by the Government maintained their status. There was a competition amongst the students and teachers of government run secondary schools with those of the private secondary and higher secondary schools.

The competition could be assessed from the results of the students in their respective examinations. On the Government side (1) The Tamphasana Girls’ Higher Secondary, Imphal; (2) Nambol Hr. Sec. School, Nambol, (3) Churchand Higher Secondary School, Imphal; (4) Ananda Singh Higher Secondary School, Imphal; (5) Chaoyaima Higher Secondary School, Thoubal; and (6) Kakching Hr. Sec. School, Kakching (shown at Plate No.3, page 151)
Photos – Different Hr. Secondary Schools visited in four Valley Districts of Manipur

(1) Principal and teaching staff of the Tamphasana Girls' Hr. Secondary School, Imphal, (2) Teaching Staff of Nambol Hr. Sec. School, Nambol (3) Vice-Principal, Churchand Hr. Secondary School, Imphal, (4) Anand Singh Hr. Sec. School, Imphal, (5) Principal and Teaching staff, Chaoyaima Hr. Sec. School, Imphal and (6) Teaching staff of the Kakching Hr. Sec. School, Kakching.
Ibotonsana Girls’ Higher Secondary Schools, Imphal; Johnstone Higher Secondary Schools, Imphal; etcetera were some of the Government schools challenging with the private schools like, (1) Padma Ratna Hr. Sec. School, Kakching, (2) Herbert School, Ghari near airport road and (3) Human Resource Development Academy, Ghari etcetera (shown in Plat No.4, page 149).

In short, in such schools laboratory facilities had been extended for practical and the attitude of these teachers remained different from those of the governments’ higher secondary schools and junior high schools. Moreover, science equipments including charts, etcetera were also made available in these higher secondary schools. When the infrastructure facilities remained good and other teaching learning materials were available in good condition, students strength remained intact and the salary component was sound, the problem of the teachers affecting their attitude might be less.

Moreover, the time for assessing the questions were also considered. Each subject had been given one hour for answering the questionnaire for Teacher Attitude Inventory and teachers’ problems Questionnaire Scheduled. The time limited had been fixed according to the instruction given in the questionnaire.

However, promotional matter, service seniority, lack of cooperation with the administrator or Principal, lack of cooperation amongst the teachers, presence of delinquent students in the class, irregularity in attendance by the students etcetera, might sometime provide the teachers, thereby affecting the attitude of the teachers. These
Photos: Private Hr. Sec. Schools

(1) Investigator with the Principal, Padma Ratna Hr. Sec. School, Kakching.
(2) School Building, Padma Ratna Hr. Sec. School, Kakching.
(3) Herbert School Complex, Ghari.
(4) Principal, Herbert School, Ghari, Imphal.
(5) Teaching Staff of Human Resource Development Academy, Ghari.
(6) H.R.D. Academy Building (front view).
attitudes were in varied forms, which needed to be studied and accordingly, the investigator developed the inventory.

The reason for developing the Inventory was because of the fact that the Teacher Attitude Inventory (TAI) questionnaire was an objectively scaleable test developed through basic research in educational psychology. This questionnaire schedule was found very appropriate for a literate group and the test could be scored by hand with the application of computer appliances. The questionnaire consisted of 50 items covering six aspects which dealt with teaching profession, educational process, classroom teaching, pupils, child centered practices and teachers. It provided comprehensive coverage of attitudes characters for the measurement of six aspects and functionality which became independently and psychologically meaningful dimension isolated and identified after more than twenty years of analytic research.