CHAPTER-VI

MAIN FINDINGS

From the above analysis, main findings were focused in the present study through item wise analysis of the four districts. Each district had taken up fifty items concerning the problems faced by the teachers. Itemwise analysis of the teachers' problems were made in a tabular form which were given in the Table No: (41-60). In addition to this findings of attitudinal behavioral pattern were also hypothetically tested with the application of ‘t’ test and conclusions were drawn. Hence, attempts were made to place the main findings of the study district wise.

IMPHAL EAST DISTRICT

Instructional materials, textbooks, syllabus and teaching aids

The problem areas as express by teachers were on instructional materials, text books and teaching aids in regard to Imphal east district. In this aspect 53% of the science teachers had given their opinion that the teaching learning materials were not available in the schools. It was found that 82% science teachers had told that they were not getting any science journals and magazines. Again 47% of the science teachers reported that they had satisfied the diagrams, pictures, prints, etcetera provided in the text books and other 53% science teachers showed dissatisfaction. Regarding the condition of text books, 62% science teachers were in favour of the text book regarding the manner of presentation and explanation and rest 48% science teachers were not satisfied. In regards to the contents, 63% teachers told that the content of the text book was not written according to the child’s needs and demands. And regarding
the black board size, 65% teachers told that they had satisfied the condition of the blackboard.

From the above analysis, it could be concluded that the most of the schools in the Imphal East District were not provided with science teaching materials, teachers guide, science journals. Also it was confirmed that the condition of the text book regarding the quality and availability was not satisfied. In most of the government schools the conditions of black boards were in a worst situation, neither it could be used for writing properly, nor it could be read easily after writing. Therefore, proper steps should be taken up to provide the essential requirement at the earliest in order to strengthen and enhance the quality of education and also to strengthen teachers’ knowledge in this field.

Classroom Situation, workload, science laboratory

From the analysis, it was found that 57% teachers reported that they had no adequate working benches and tables in the classroom, whereas the rest 43% satisfied the condition. Further 28% of the teachers gave their opinion that their work load in teaching science was very heavy but the remaining 72% teachers satisfied their work load. Only 32% teachers reported that they had well equipped classroom installing with fans and lighting system and rest 78% teachers reported that they had no such facilities in their schools.

Regarding the science laboratory, 47% science teachers reported that they had no practical laboratory rooms and the rest 53% expressed that they had separate practical laboratory. It was also confirmed that in some government schools, there was no wall at all and flooring was not
done well with concrete. Besides this, doors and windows were not found fixing properly and there was no proper ventilation at all. Hence proper inspection should be conducted for providing well equipped infrastructure of the classroom laboratory and also for keeping a congenial environment in the school premises.

**Science Training Programme, Methodology of teaching and Evaluation**

For enhancing the knowledge in teaching learning process, orientation, workshop, short term courses, summer institute courses needed to be considered. In this regard, 70% science teachers reported that they had not any in-service training programme for their growth and development of teaching quality. And 34% of the science teacher told that they had the problem of applying teachers cum demonstration method in some topics and the rest 76% did not had such problems.

For making questions for a test, ten percent science teachers were facing problem while the rest 90% teachers reported that they could make questions for the science subject. And 58% teachers expressed that they had difficulties to measures the non-scholastic areas of the students. As such, the science teachers should be provided adequate proper training in the teaching processes.

**Organization of learning activities outside the classroom like organization of field trip, co-curricular activities etcetera**

Apart from the classroom teaching, science teaching needed other activities like field trips because from such activities students could learn direct, first hand knowledge and they could observe directly from the real situation which created themselves long retention of memory. In this regard, 74% science teacher reported that science could only be taught in
the classroom situation but the rest 36% teacher denied their opinion. And 54% science teachers reported that they were facing problems regarding the organization co-curricular activities in science, due to shortage of fund, lack of interest and cooperation.

In short, administration policy of the government had an important role for improvement of science teaching. Further, the head of the institution could play another important part in the teaching learning processes. In this regard, it was also reported that seven percent teachers had satisfied the transfer policy system while 93% teachers reported that they were not satisfied government towards transfer policy system. And 81% teacher reported that they got job satisfaction but the remaining nine percent teachers did not get job satisfaction, and 99% science teachers reported that they had good relationship with the students and 98% teachers reported that they have good relationship with the head of the institution. In the aspect of promotional matter, sometimes enmity was formed among the staff members, as well as with head of the institution.

After collecting and processing the data, the present investigation were analyzed the problems in depth including item wise analysis for each of the four districts separately. Even district wise crosswise attitudinal aspects of the science teachers were also made minutely. Graphical representation were made in comparison of the attitudinal aspects of two districts.

In present chapter, attempt had been made to focus on the main findings for each of the four districts separately basing on the analysis of the teachers problems and their attitudinal aspects. It also included administrative lacuna along with its managerial aspects. It further
included not only of the governmental hierarchy but also the institutional role and its effects on the teachers even the framing of syllabus, curriculum, lesson wise organization, framing of questions etcetera had been included. It further included promotional aspects, transfer policy and infrastructural maintenance.

(i) In regards to the duration of the class, twenty seven percent of the teachers; 14% male and 13% female teachers reported that they had not satisfied and the same responses were shared by 12% trained and 15% untrained teachers; seven percent highly qualified and twenty percent lower qualified teachers; 18% higher experienced and nine percent lower experienced teachers, including 17% rural and ten percent urban teachers.

(ii) Out of 53% of the teachers; 27% male and 26% female; including 17% trained and 36% untrained teachers reported that they were not satisfied with the manner of text book distribution to the pupils. And 11% highly qualified and 42% lower qualified teachers including 27% highly experienced and 26% lower experienced teachers. It further included 22% rural and 31% urban teachers who were dissatisfied in the manner of text books distribution to the pupils.

(iii) Regarding training and orientation programme imparted to the teachers, 70% of the teachers including, 37% male and 33% female teachers reported that they were not satisfied with the arrangement. The same was shared by 32% trained and 38% untrained teachers. It further included, 19% highly qualified and 51% lower qualified teachers and 44% highly experienced and 26% lower experienced teachers and also 30% rural and 40% urban teachers, showing dissatisfaction the arrangement of training programmes.
(iv) In relation to the nature of the contents of the syllabus, out of 19% of the teachers, twelve percent male and seven percent female had satisfaction and same responses were shared by four percent trained and 15% untrained teachers; six percent higher qualified and 13% lower qualified teachers; six percent higher experienced; 13% lower experienced teachers; eight percent rural and eleven percent urban teachers.

(v) In respect to the availability of equipment, apparatus in the schools out of 52% of the teachers, 22% male and 30% female reported that they were not satisfied, including 23% trained and 29% untrained teachers. The same responses were also shared by nine percent highly qualified and 43% lower qualified teachers. It further expressed that 26% highly experienced and 26% lower experienced teachers were dissatisfied the condition of availability of equipments, apparatus including 25% rural and 27% urban teachers.

(vi) Regarding the conditions of the benches and tables available in the schools, out of the 57% of the teachers, 28% male and 29% female teachers were reported that they were dissatisfied and sharing the same responses with the 24% trained and 33% untrained teachers, eight percent highly qualified and 49% lower qualified teachers; 34% highly experienced and 23% lower experienced teachers; 27% rural and 30% urban teachers were not satisfied.

(vii) In respect to charts, diagrams etcetera, out of 53% of the science teachers; 22% male and 31% female teachers reported that they had not adequate teaching aids, including 23% trained and 30% untrained teachers. Further seven percent highly qualified and 46% lower qualified
teachers, including, 31% highly experienced and 22% lower experienced teachers, and also 26% rural and 27% urban teachers, were shared the same responses.

(viii) In relation to the availability of the journals in the schools, out of 82% teachers, 38% male and 44% female teachers reported that they could not avail of such journals and same responses were shared by 33% trained and 49% untrained teachers, 19% highly qualified and 63% lower qualified teachers, 53% highly experienced and 29% lower experienced teachers, including 38% rural and 44% urban teachers.

(ix) Regarding the teachers’ guide books and hand books, out of 65% of the teachers, 31% male and 34% female teachers expressed that they had no such facilities in the schools. The same responses were shared by 28% trained and 37% untrained teachers, 11% highly qualified and 54% lower qualified teachers, 43% highly experienced and 22% lower experienced teachers including 30% rural and 35% urban teachers.

(x) In respect to the individual treatment of the student, out of 60% of the teachers, 32% male and 28% female teachers reported that they had difficulties to help the students individually. And same responses were shared by 23% trained and 37% untrained teachers, 19% highly qualified and 41% lower qualified teachers, 32% highly experienced and 28% lower experienced teachers and 26% rural and 34% urban teachers.

(xi) In relation to the provision for teaching outside the classroom situation, out of 74% of the teachers, 34% male and 40% female teachers, expressed that they were not having such provision. The same responses were shared by 32% trained and 42% untrained teachers, including 18%
highly qualified and 56% lower qualified teachers, 47% highly experienced and 27% lower experienced teachers, 35% rural and 39% urban teachers.

(xii) Out of 54% of the teachers, 28% male and 26% female reported that they had difficulties to organize co-curricular activities in science subjects including 29% trained and 25% untrained teachers. The same responses were shared by 17% highly qualified and 37% lower qualified science teachers, 34% highly experienced and 20% lower experienced teachers and 26% rural and 28% urban science teachers.

(xiii) Regarding the evaluation of the non-scholastic competency of the learners, out of 58% of the science teachers, 25% male and 33% female teachers reported that they were facing difficulties, including 29% trained and 29% untrained teachers. The same responses were made by 12% highly qualified and 46% lower qualified teachers, 44% highly experienced and 14% lower experienced science teachers and 26% rural and 32% urban teachers.

(xiv) Out of 92% of the teachers, 46% male and 46% female, 37% trained and 55% untrained teachers reported that the readymade diagnostic test were not available. The same responses were shared by 24% highly qualified, 68% lower qualified, 57% highly experienced, 35% lower experienced teachers and 49% rural and 43% urban science teachers.

(xv) In respect to condition of the text book, out of 63% of the teachers, 33% male and 30% female and 22% trained and 41% untrained teachers reported that they were in favour of the text books. It further
included 14% highly qualified and 49% lower qualified teachers, 38% highly experienced and 25% lower experienced teachers and 31% rural and 32% urban teachers who were in favour of text book.

(xvi) Out of 54% of the teachers, 23% male and 31% female and 25% trained and 29% untrained expressed that they were in favour of the manner of presentation and explanation written in the text book. The same responses were shared by 16% highly qualified, 38% lower qualified teachers, 37% highly experienced and 17% lower experienced teachers and also with 24% rural and 30% urban science teachers.

(xvii) Regarding the shape and size condition of the black board, out of 65% of the teachers, 29% male and 36% female teachers expressed that they were in favour of the black board condition. It further included 29% trained and 36% untrained teachers, 21% highly qualified and 44% lower qualified teachers, 38% highly experienced and 27% lower experienced teachers, 31% rural and 34% urban teachers who were in favour of black board condition.

(xviii) Out of 63% of the teachers, 32% male and 31% female teachers reported that they were in favour of the present system of examination, including 23% trained and 40% untrained teachers. The same responses were made by 23% highly qualified and 40% lower qualified teachers, 32% highly experienced and 31% lower experienced teachers, 30% rural and 33% urban teachers.

(xix) In respect to the relationship with the pupils, out of 99% of the teachers, 47% male and 52% female teachers reported that they had a good relationship with the students, including 42% trained and 57%
untrained teachers. It further included, 26% highly qualified and 73% lower qualified teachers, 60% highly experienced and 39% lower experienced teachers, 54% rural and 45% urban teachers who shared same responses.

(xx) Out of 98% of the teachers, 47% male and 51% female teachers reported that they had a good relationship with the head of the institution including, 42% trained and 56% untrained teachers. The same responses were shared by 25% highly qualified and 73% lower qualified teachers, 60% highly experienced and 38% lower experienced teachers, 52% rural and 46% urban teachers.

(xx) Regarding job satisfaction, out of 81% of the teachers, 32% male and 49% female teachers reported that they were dissatisfied their job, including 34% trained and 47% untrained teachers. The same responses were made by 19% highly qualified and 62% lower qualified teachers, 52% highly experienced and 29% lower experienced teachers, 38% rural and 43% urban teachers.

(xxii) Out of 53% of the teachers, 28% male and 25% female teachers reported that they had problems regarding their promotional and placement matters including 28% trained and 25% untrained teachers. It further included 14% highly qualified and 39% lower qualified teachers, 38% highly experienced and 15% lower experienced teachers, 25% rural and 28% urban teachers who shared the same responses.

**Imphal West District**

In respect to the instructional materials, text books, syllabus and teaching aids, 48% science teachers reported that there were no
instructional materials in their schools and the rest 52% teachers reported that they had such kind of facilities. In case of the text books 56% teachers expressed that text books were available before the commencement of their session. Regarding syllabus 17% teachers reported that they were satisfied the contents of the courses envisaged in the science syllabus, while 83% teachers expressed dissatisfaction with the nature and organization of the contents areas, 25% teachers expressed that the syllabus was voluminous, while 75% gave satisfaction responses. Again 86% teachers expressed that topics of the science subjects arranged in a sequential order. And 59% expressed that they were not receiving any guide books, hand books for teaching science; 50% teacher expressed satisfaction regarding the diagram, pictures, prints, etcetera provided in the text books and 48% reported of satisfaction in regards to the size and shape of black board, while 52% teachers showed dissatisfaction.

Regarding classroom situation, work load of the teachers, and science laboratory 43% teachers reported that they did not had adequate working benches and tables for teaching and 46% teachers reported that the schools did not have working demonstration tables and other infrastructures. Again, 27% teachers reported that their schools had well electrification and fans. And 34% expressed that their work load was heavy but the rest 66% teachers reported that they had no such problems. And 35% teachers reported that they did not have science laboratory but 65% teachers expressed that they had laboratory room for practical.

In relation to service training programme, methodology of teaching and evaluation two percent teachers reported that they were not getting in service training programmes for science teachers. Again 27% teachers
found difficult to use different methods due to heavy curriculum and 34% teachers reported that they were facing problems to apply different methods in teaching science and other 66% teachers had no such problems. And 6% teachers expressed that they had problems regarding the setting of questions for a test and 38% were facing for the evaluation of non-scholastic areas of the students and 100% teachers satisfied the present system of examination.

Regarding the organization of learning activities outside the classroom, organization of field trip, co-curricular activities, 61% teachers reported that there was no provision for learning of the students outside the classroom, while 70% expressed that they had found difficulties to organize co-curricular activities in science subject but 30% reported that they had no problems.

In respect to other problems of science teachers of Imphal West District, Manipur, it was reported that administration played an important role for the improvement and development of science teaching and role of the head of the institution also played a vital role. As such, 50% teachers reported that students were allowed to pass examination even though they secured poor marks. Again 43% teachers reported that numbers of teachers were found less below the required number of teachers. And 100% teachers expressed that they could maintain good relationship with the students as well as with the head of the institutions. Only eight percent teachers reported that they were satisfied their transfer posting policy of the government. And 93% teachers reported that had job satisfaction.
Therefore from the above analysis, it was clear that the science teachers were facing different types of difficulties and problems. So, proper care and attention from the government side were needed to improve and strengthen the teaching quality. Only then, we could produce good numbers of citizens of the country in the future.

(i) Regarding the duration of classes out of 57% of the teachers, 30% male and 27% female teachers reported that they were dissatisfied, including 17% trained and 40% untrained teachers. It further included 15% highly qualified and 42% lower qualified teachers, 32% lower experienced and 25% highly experienced teachers, 33% rural and 24% urban teachers who shared the same responses.

(ii) Out of 72% of the teachers, 35% male and 37% female teachers expressed that they were in favour of training programme, including 24% trained and 48% untrained teachers. It further included 22% highly qualified and 50% lower qualified teachers, 50% lower experienced and 22% highly experienced teachers, 46% rural and 26% urban teachers who gave the same responses.

(iii) Out of 75% of the teachers, 36% male and 39% female teachers including, 23% trained and 52% untrained teachers reported that relevant journals of science subjects were not available in the schools. It further included, 20% highly qualified and 55% lower qualified teachers, 56% lower experienced and 19% highly experienced teachers, 47% rural and 28% urban science teachers who shared the same responses.

(iv) In relation to the reference books, out of 56% of the teachers, 28% male and 28% female teachers including, 17% trained and 39%
untrained teachers reported that reference books for science teaching were not available. It further included 19% highly qualified and 37% lower qualified teachers, 30% lower experienced and 26% highly experienced teachers, 18% urban and 38% rural teachers who shared the responses.

(v) Regarding the teachers' guide and hand books, out of 59% of the teachers, 29% male and 30% female teachers including 19% trained and 40% untrained teachers expressed that teachers' guide and hand books on science subject were not available. The same responses were shared by 18% highly qualified and 41% lower qualified teachers, 32% highly experienced and 27% lower experienced teachers, including 23% urban and 36% rural teachers.

(vi) Out of 61% of the teachers, 30% male and 31% female teachers including 21% trained and 40% untrained teachers reported that they faced difficulties to help each student, individually. It further included 21% highly qualified and 40% lower qualified teachers, 41% lower experienced and 20% highly experienced teachers, along with 22% urban and 39% rural teachers, shared the same responses.

(vii) In relation to provision for learning science outside the classroom, out of 61% of the teachers, 36% male and 25% female teachers including 22% trained and 39% untrained teachers reported that they had no any provision for learning science outside the classroom. The same responses were shared by 19% highly qualified and 42% lower qualified teachers, 38% lower experienced and 23% highly experienced teachers, 18% urban and 43% rural teachers.
(viii) Out of 70% of the teachers, 33% male and 37% female teachers including 18% trained and 52% untrained teachers reported that they had difficulties in organizing co-curricular activities. It further included 20% highly qualified and 50% lower qualified teachers, 45% lower experienced and 25% highly experienced teachers, along with the 30% urban and 40% rural teachers, shared the same responses.

(ix) Regarding the contents of text book, out of 68% of the teachers, 34% male and 34% female teachers, including 25% trained and 43% untrained teachers expressed that they were not in favour of the contents of text book. It further included 18% highly qualified and 50% lower qualified teachers, 49% lower experienced and 19% highly experienced teachers, 24% urban and 44% rural teachers, shared the same responses.

(x) Out of 60% of the teachers, 29% male and 31% female teachers including 23% trained and 37% untrained teachers reported that manner of presentation and explanation, written in the text book were satisfactory. The same responses were shared by 17% highly qualified and 43% lower qualified teachers, 43% lower experienced and 17% highly experienced teachers, along with 22% urban and 38% rural based teachers.

(xi) In relation to the present system of examination, out of 66% of the teachers, 28% male and 38% female teachers, including 23% trained and 43% untrained teachers expressed that they were in favour of the present system of examination. The same responses were shared by 20% highly qualified and 46% lower qualified teachers, 48% lower
experienced and 18% highly experienced teachers, including 27% urban and 39% rural teachers.

(xii) Out of cent percent of the teachers, 51% male and 49% female teachers including 32% trained and 68% untrained teachers reported that they had a good relationship with their students. It further included 30% highly qualified and 70% lower qualified teachers, 69% lower experienced and 31% highly experienced teachers, along with 40% urban and 60% rural teachers who shared the same responses.

(xiii) Regarding the relationship with the head of the institution, out of cent percent of the teachers, 51% male and 49% female teachers including 32% trained and 68% untrained teachers reported that they could maintain relationship with the head of the institution. The same responses were shared by 30% highly qualified and 70% lower qualified teachers, 69% lower experienced and 31% highly experienced teachers, including 40% urban and 60% rural teachers.

(xiv) Out of 93% of the teachers, 46% male and 47% female teachers including 28% trained and 65% untrained teachers reported that they satisfied their job. The same responses were shared by 26% highly qualified and 67% lower qualified teachers, 68% lower experienced and 25% highly experienced teachers, including 34% urban and 59% rural based teachers.

Bishnupur District

In regard to the instructional materials like text books, syllabus and teaching aids, 76% teachers reported that journals were not available in the schools. Again 44% teachers expressed that teachers' hand book and
guide books were not available in the schools and 41% teachers reported that text books were not available before the commencement of the session. And 31% teachers reported that their syllabus was voluminous. Again 19% teachers expressed that the syllabus of science was not within the range of comprehensiveness and 14% teachers reported that topics in science subject were not arranged in sequential order. But 55% teachers reported that the size and condition of the black board was not in satisfactory condition. Again 45% teachers were not satisfied regarding the presentation of diagrams, pictures and printing quality of the text books. But 55% teachers reported that text books were found not written according to the child’s needs.

In respect to classroom situation, work load of the teachers and science laboratory, 54% teachers reported that the school did not have adequate working benches and tables. And 49% teachers expressed that they had no demonstration table for practical classes. And also 32% teachers reported that they had well equipped lighting system and fans. And 31% teachers expressed that their work load was heavy but the remaining, 69% teachers reported that their work load was satisfied.

In regard to training programme for teachers, methods of teaching and evaluation, 70% teachers reported that in service training programme were not organized regularly. And 28% teachers expressed that they had difficulties in applying different methods of teaching due to heavy curriculum. Only two percent teachers expressed that they had difficulties in framing question paper for a test. And 31% teachers reported that they had difficulties in evaluating of non-scholastic areas of students. But 58% teacher expressed satisfaction of present system of examination conducted by the Manipur Board.
In relation to the organization of learning activities outside the classroom like organization of field trip and other co-curricular activities, 69% science teachers reported that there was no provision in the school for students for the organization of co-curricular activities due to shortage of funds, etcetera. Therefore, the above problems could only be easily solved by providing adequate financial help from the education department for the smooth functioning of the programme.

In regard to the administration of education department and institution management for the teaching learning processes, 93% teachers reported that they could maintain a good relationship with students. And seven percent expressed that they had no good relationship. Only nine percent teachers reported they were in favour of transfer posting system of Manipur government, but 91% teachers showed against such attitudes of the Government.

Hence, from the above findings, it could be assessed that many teachers were facing problems regarding the transfer posting system, interrelationship among the teachers, student and with the head of the institution also. Therefore, immediate remedial measures should be taken up from the concerned authority in order to solve the above problems so that we could improve the teaching quality and also we also could produce good citizens of this country.

(i) Regarding the training programme out of 70% of the teachers, 53% male and 17% female teachers including 16% trained and 54% untrained teachers reported that training programmes for science teachers were not organized regularly. The same responses were shared by five
percent highly qualified and 65% lower qualified teachers, 50% highly experienced and 20% lower experienced teachers.

(ii) Out of 59% of the teachers, 44% male and 15% female teachers including ten percent trained and 49% untrained teachers reported that they had faced difficulties to help students individually. It further included seven percent highly qualified and 52% lower qualified teachers, along with 36% highly experienced and 23% lower experienced teachers, shared the same responses.

(iii) In relation to provision for learning science outside the school, out of 69% of the teachers, 51% male and 18% female teachers including 20% trained and 49% untrained teachers reported that there was no provision for learning science outside the school. It further included six percent highly qualified and 63% lower qualified teachers, along with 52% highly experienced and 17% lower experienced teachers were made the same responses.

(iv) Out of 55% of the teachers, 41% male and 14% female teachers including ten percent trained and 45% untrained teachers reported that they were in favour of the shape and size, condition of the black board. The same responses were given by eleven percent highly qualified and 44% lower qualified teachers, thirty percent highly experienced and 25% lower experienced teachers.

(v) Regarding the present system of the examination, out of 58% of the teachers, 42% male and sixteen percent female teachers, including fourteen percent trained and 44% untrained teachers, reported that they were in favour of the present system of the examination. It further
included ten percent highly qualified and 48% lower qualified teachers, 32% highly experienced and 26% lower experienced teachers shared the same responses.

(vi) Out of 93% of the teachers, 67% male and 26% female teachers including, 22% trained and 71% untrained teachers expressed that they had good relationship with their students. The same responses were shared by 15% highly qualified and 78% lower qualified teachers, along with 59% highly experienced and 34% lower experienced teachers.

(vii) Regarding the relationship with the head of the institution, out of 97% of the teachers, 71% male and 26% female teachers including, 22% trained and 75% untrained teachers reported that they had a good relationship with the head of the institution. It further included, 15% highly qualified and 82% lower qualified teachers, 63% highly experienced and 34% lower experienced teachers who shared the same responses.

(viii) Out of 76% of the teachers, 52% male and 24% female teachers including sixteen percent trained and sixty percent untrained teachers reported that they had full satisfaction of their job. The same responses were shared by thirteen percent highly qualified and 63% lower qualified teachers, 47% highly experienced and 29% lower experienced teachers.

**Thoubal District**

In respect to instructional materials, text books, syllabus and teaching aids, 69% science teachers reported that journals of science were not available in the schools. And 34% teachers expressed that teachers’
hand books and guide books were not available in the schools. Again 32% teachers reported that text books were not available in time, before the commencement of the classes. It was also reported that 14% teachers were not satisfied the sequential order of content and 36% teachers reported that science syllabus was not within the range of comprehensive. And 48% teachers reported that the school did not have teaching aids, like charts, diagram, models, specimens, etcetera. And 53% science teachers expressed that the shape, size and condition of the black board was not satisfied.

In regard to classroom situation, work load of teachers and science laboratory, it was found that 29% teachers reported that their school did not have adequate working benches and tables. And 27% teacher reported that working demonstration table and other infrastructures were not available in the school. And 57% teachers reported that their classroom was not provided with well lighting system and fans. Further, 48% teachers reported that their work load was heavy and 44% teachers reported that the school did not have practical laboratory room.

In respect to training programme for teachers, teaching methodology, and evaluation, 70% teachers reported that training programme were not organized regularly. And 34% teachers expressed that they were facing difficulties in applying teaching strategies due to heavy curriculum and 26% science teachers expressed that they faced the difficulties in applying the lecture cum demonstration method. Only six percent showed difficulties in question setting, while 23% teachers were facing difficulties in evaluating the non scholastic areas of the students.
Again 67% teachers were satisfied regarding the present examination system of the Manipur Board.

In regard to organization of learning activities outside the classroom, like organization of field trip and other co-curricular activities, 47% teachers reported that there was no provision for students learning outside the school. And 36% teachers said that there was difficulties to organize co-curricular activities in science subject. From the above findings, the existing problems could be solved by providing adequate financial assistance for organizing co-curricular activities from the concerned authority.

In regard to the administration, cent percent service teachers expressed that good relationship could be maintained in between the teacher and students and 96% teachers reported that they had good relationship with their head of the institution. Only two percent teachers satisfied the transfer policy system of the government but the 98% teachers were dissatisfied the treatment of the government.

Therefore, it was confirmed that teachers were facing many personal problems which affected their teaching learning processes. So, immediate measures should be taken up from the government side, to solve problems at their best level to improve the teaching quality of the science education.

(i) Regarding training programme out of 67% of the teachers, 57% male and 11% female teachers including 18% trained and 50% untrained teachers reported that that in service training programme for science teachers were not organized regularly. It further included 23% highly
qualified and 45% lower qualified teachers, 30% highly experienced and 38% lower experienced teachers had shared the same responses.

(ii) In relation to the journals, out of 68% of the teachers, 57% male and eleven percent female teachers, including 23% trained and 45% untrained teachers reported that different journals in science were not available in the school library. The same responses were shared by 26% highly qualified and 42% lower qualified teachers, 36% highly experienced and 32% lower experienced teachers.

(iii) Out of the 82% of the teachers, 65% male and 17% female teachers including 25% trained and 57% untrained teachers, including 35% highly qualified and 47% lower qualified teachers expressed that they faced difficulties in helping each student individually, in the classroom situation. The same responses were shared by 28% highly experienced and 54% lower experienced teachers.

(iv) Regarding the evaluation, out of 65% of the teachers, 56% male and 9% female teachers including 25% trained and 40% untrained teachers reported that they had no readymade diagnostic test for evaluating students' difficulties, in the teaching science. The same responses were shared by 29% highly qualified and 36% lower qualified teachers, 35% highly experienced and 30% lower experienced teachers.

(v) Out of 64% of the teachers, 51% male and thirteen percent female teachers including 22% trained and 42% untrained teachers reported that they were in favour of the diagram, pictures, prints quality of the text book. It further included, 27% highly qualified and 23% lower
qualified teachers, 26% highly experienced and 38% lower experienced teachers were given the same responses.

(vi) In relation to the contents of the text book, out of 71% of the teachers, 58% male and 13% female teachers including 18% trained and 53% untrained teachers reported that they had satisfied the contents of the text book. The same responses were shared by 26% highly qualified and 45% lower qualified teachers, 30% highly experienced and 41% lower experienced teachers.

(vii) Regarding the presentation and explanation of the text book, out of 57% of the teachers, 48% male and 9% female teachers reported that they had satisfied the manner of presentation and explanation written in the text book. It further included, nineteen percent trained and 39% untrained teachers, 23% highly qualified and 34% lower qualified teachers, 32% highly experienced and 25% lower experienced teachers sharing the same responses.

(viii) Out of 53% of the teachers, 43% male and 10% female teachers including nineteen percent trained and 34% untrained teachers reported that they were satisfied the shape, size, condition of the black board provided in the school. It further included, 27% highly and 26% lower qualified teachers, 21% highly experienced and 32% lower experienced teachers sharing the same responses.

(ix) Regarding the present system of examination, out of 67% of the teachers, 55% male and 12% female teachers including nineteen percent trained and 34% untrained teachers reported that they were in favour of the present system of examination. The same responses were
shared by 27% highly qualified and 26% lower qualified teachers, 21% highly experienced and 32% lower experienced teachers.

(x) Out of 98 percent of the teachers, 82% male and 18% female teachers, including 29% trained and 71% untrained teachers expressed that they had good relationship with their students. It further included, 41% highly qualified. and 59% lower qualified teachers, 42% highly experienced and 58% lower experienced teachers sharing the same responses.

(xi) In relation to the relationship with the head of the institution, out of 96% of the teachers, 79% male and 17% female teachers including 29% trained and 67% untrained teachers reported that they had good relationship with their head of the institution. The same responses were shared by 39% highly qualified and 57% lower qualified teachers, 40% highly experienced and 56% lower experienced teachers.

(xii) Regarding the satisfaction of the job, out of 84% of the teachers, 69% male and 15% female teachers, including 23% trained and 51% untrained teachers reported that they got job satisfaction. It further included 34% highly qualified and 50% lower qualified teachers, 34% highly experienced and 50% lower experienced teachers sharing the same responses.

(xiii) Out of 57% of the teachers, 46% male and 11% female teachers including 20% trained and 37% untrained teachers reported that their classroom were equipped with well lighting and fans. The same responses were shared by 27% highly qualified and 30% lower qualified teachers, 17% highly experienced and 40% lower experienced teachers.
Imphal East

From the analysis, it was found that there was no existence of significant difference between male and female; trained and untrained; highly qualified and lower qualified, higher experienced and lower experienced; rural and urban based graduate science teachers, regarding their attitudinal aspects towards teaching science in the schools of Imphal East District.

Imphal West

In Imphal West District also, it was found that there was no statistically significant difference between male and female; highly qualified and lower qualified, higher experienced and lower experienced science graduate teachers regarding their attitudes aspects towards teaching science. But on the other hand, there was statistically significant difference between the trained and untrained; rural and urban based teachers regarding their attitudes towards teaching science.

Bishnupur District

There was no statistically significant difference between male and female; higher experienced and lower experienced; rural and urban teachers regarding their attitudes towards teaching science. But in the case of highly qualified and lower qualified; trained and untrained teachers, there were existence of statistically significant difference regarding their attitudes towards teaching science.

Thoubal District

From the findings of the analysis, it was found that there was no statistically significant difference between male and female; highly
qualified and lower qualified; highly experienced and lower experienced, trained and untrained science graduate teachers regarding their attitudes towards teaching science.

**Crosswise Analysis of the Attitudes**

**Imphal East Versus Imphal West District**

There was no statistically significant difference in between Imphal East and Imphal West district regarding their attitudes towards teaching science.

**Imphal East Versus Thoubal District**

From the crosswise analysis, it was found that there was no statistically significant difference between Imphal East and Thoubal District.

**Imphal East Versus Bishnupur District**

From the findings of the calculation, it was found that there was no statistically significant difference between Imphal East and Bishnupur District in regards to their attitudes towards teaching science.

**Bishnupur District Versus Thoubal District**

From the calculation of ‘t’, it was found that there was no statistically significant differences between Bishnupur District and Thoubal District.