Appendix-A

CLASS OBSERVATION FORM

Name of teacher:			
Class:	Topic:	Period:	Time
Total Number of stud	ents:	.Male:	Female:

		Observed Items	Yes/No
I.		Pre	
	1)	The availability and quality of furniture, chalkboard.	
	2)	Motivation provided	
	3)	Review/preview provided	
	4)	Teacher presentation of lesson	
II.		While	
	1)	Materials presented	
	2)	Students participation in the class	
	3)	Opportunities provided for questioning to students?	
	4)	Many examples provided to concepts	
III.		Post	
	1)	Summarization of unit	
	2)	The quality of classwork and homework	
	3)	Checking the achievement of objectives	
	4)	Appropriate feedback provided	

Appendix-B

Interview Guidelines for Mathematics Teacher

Name:		Qualification:	
Age:	Sex:		
College name:	Teaching Experience:	Training:	

Open- ended questions:

Classroom Management:

- Difficulties in completion of limits if taught using teaching materials, are you agree?
- What kinds of problems do you find during teaching limit?

Pre concept of students for learning:

- Poor foundation of students in lower level possess problem in teaching learning limits?
- What kinds of pre knowledge are necessary for teaching learning limits?

Teacher training (Pre- service and in -service):

- Is refreshment training is regularly?
- Are teacher training is sufficient? If not what type of training, seminar and conferences do you need?

Teaching methods and materials:

- What kinds of teaching strategies do you follow for teaching limits?
- Do you use lesson plan regularly?

School management and administration:

- What do you aspect more from school administration to make class effective?
- Is mathematics teaching manual, other journals available in your college which helps teaching learning limit?

Appendix-C

Interview guidelines for students

Campus Name & Location	
Types of campus: a) Government ()	b) Private ()
Name	Class
Roll. No Position in the class	Sitting position in the class
Gender	Caste/Ethnicity
Family status (about education)	

Open- ended questions:

Classroom Management:

- Do you participate class works for practice?
- Does the teacher give appropriate feedback regularly?

Pre concept of students for learning:

- Does the teacher give pre concept, understanding before teaching limit?
- Is this chapter (Limits) related to lower classes?
- Does the teacher give appropriate feedback regularly?

Teaching methods and materials:

- Does your teacher use locally available and low cost materials in teaching limits?
- Does your teacher use various methods and materials in classroom activity?

School management and administration:

- Do you have any problems of chalk, board and other furniture in your classroom?
- Is mathematics teaching manual, other journals available in your college which helps teaching learning limit?

Appendix-D

Observation sheet to the teachers on factors responsible for the difficulty and

suggestion measures in the teaching and learning of limits in Grade XI.

S/N	Items	Responses		
		SA	A	D
	Classroom Management			
1	There is a mathematics laboratory or mathematics lab in school			
2	Board is good and enough space in mathematics classroom			
3	Difficulties in completion of limits course if taught using teaching			
	materials			
4	School is well equipped with desk and bench in the classroom			
	according to the number of students			
5	Boredom feeling in limits teaching.			
	Mathematical Instruction, Method and Materials	1	<u> </u>	
6	Teaching machine and computer are available in limit classroom			
7	I don't make plans (yearly as well as unit) because I don't know how			
	to do it			
8	There is a lack of proper space to demonstrate instructional materials			
9	Library facility is available			
10	The room is equipped with a graph and bulletin board			
11	I make daily lesson plans			
12	Some of the portion of limits are difficult to teach			

13	Refreshment training is given regularly
14	I make and frequent use of instructional materials (other than text
	book) to motive my students and make limits more meaningful
	School Management and Administration
15	Compulsion to take more classes because of low number of
	mathematics teacher
16	Irresponsible administration to manage and construct necessary
	teaching materials
17	Refreshment training is given regularly
18	Lack of facilities and reward for the good performance

If you have faced any other problem then mention below:

- a)
- b)
- c)