APPENDIX - B

SCIENCE TEACHER COMPETENCY EXPLORATION FORM

Sr. No.	Competencies / Sub-competencies	Most Important 3	Important 2	Least Important 1
1.	SELECTING CONTENT			
	1. appropriate to achieve the objectives			
	2. relevant to achieve the objectives			
	3. adequate to achieve the objectives			
	4. helping to develop desirable attitude			
2.	ORGANIZING CONTENT			
	5. logically organised			
	6. psychologically organised			
	7. systematically organised			
3.	IDENTIFYING AND STATING OBJECTIVES			
	8. represent the need of the secondary school science students			
	9. build on the students previous knowledge			
	10. lead to what they will study later in science			
	11. are clearly stated			
	12. are adequate			
	13. are attainable			
4.	CLASSIFYING OBJECTIVES ACCORDING TO DOMAINS			
	14. cognifive domain (involving intellectual process)			
	15. affective domain (involving feelings, attitude)			
	16. psychomotor domain (involving manual skill)			
5.	SELECTING APPROPRIATE TEACHING METHODS			
	17. appropriate to the students being instructed			
	18. most appropriate for presenting the topic			
	19. suitable to learn facts, concepts and principle			

Sr. No.	Competencies / Sub-competencies	3	2	1
6.	CHOOSING TEACHING-AIDS			
	20.suited to the pupils			
	21.related to the content			
	22.adequate for attaining the objectives			
	23.easily available and less expensive			
7.	STRUCTURING WAYS OF EVALUATION			
	24.written test			
	25.oral test			
	26.observing the laboratory report,home-work and individual projects			
8.	INTRODUCING LESSON AND SUSTAINING ATTENTION			
	27.using students' previous knowledge			
	28.using appropriate device(questioning, role playing etc.)			
	29.moving purposefully in the class			
	30.using facial cues and gesture			
	31.pausing meaningfully			
	32.oral-visual switching			
9.	USING METHODS IN TEACHING OF SCIENCE			
	33.lecture			
	34.demonstration			
	35.programmed instruction			
	36.project			
	37.laboratory			
10.	EXPLAINING CONCEPTS AND PRINCIPLES STUDENTS I EXPLAIN BY			
	38.using appropriate vocabulary			
	39.speaking fluently and correctly			
	40.using appropriate example			
	41.maintaining continuity in the sequence of ideas			
	42.using teaching-aids			

Sr. No.	Competencies / Sub-competencies	3	2	1
11.	ASKING QUESTIONS			
	43.well structured			
	44.relevant to the topic			
	45.specific and concise			
	46.sufficient in number			
	47.seeking further information question			
	48.increasing critical awarness question			
12.	INCREASING PUPILS PARTICIPATION			
	49.students lead discussion			
	50.students' lead demonstration			
	51.questioning			
	52.laboratory exercise			
13.	CONDUCTING LECTURE EFFECTIVELY			
	53.using short well-organised lecture that lead to classroom discussion			
	54.using short demonstration			
	55.using media such as chart,models etc.			
14.	USING CHALKBOARD			
	56.writing legibly and neatly			
	57.writing adequately by maintaining continuity			
	58.sketching simple diagram			
15.	DEMONSTRATION			
	59.showing the methods and techniques of using instruments (microscope, balance etc.)			
	60.displaying the object related to science subjects			
	61.verifying facts and showing the techniques of solving problems			
	62.using simple equipment as possible			
16.	ORGANISING AND SUPERVISING FIELD TRIPS			
	63.selecting the objectives of the field studies			
	64.selecting the suitable sites			
	65.brifing the students how they are to act,what they are to bring and what they are to accomplish.			

Sr. No.	Competencies / Sub-competencies	3	2	1

17. GIVING HOME-WORK AND ASSIGNMENTS

66. defining the objectives of the assignment

67. considering the individual differences of students

68. giving assignment at the proper stages of lesson

69. setting appropriate time limit for the assignment

70. correcting homework properly

18. MAINTAINING CLASSROOM DISCIPLINE

71. making attractive begining to set the mind of the pupils in lesson

72. planning for the day's lesson before hand

73. changing the teaching method when required

74. giving chance to asks questions and clarify doubts

75. giving threats and punishment to the students

19. CLOSING THE LESSON

76. consolidating the main points

77. relate the present knowledge in new or different situation

78. linking the past knowledge with the present knowledge

20. DEVELOP STUDENTS INTEREST TOWARDS SCIENCE

79. permit students to suggest teaching methods and materials for their science class

80. engage students in a group while working

81. provide students opportunity to discuss ideas and feelings in a smaller group

21. DEVELOP STUDENTS ATTITUDE TOWARDS SCIENCE

82. encourage students reading science books, watching T.V. programme related to science visiting public display, museum etc.

83. encourage students to compare scientific explanation of a given event to non-scientific explanation for the same event or things

84. encourage students to persue hobbis related to science

85. encourage science based responses when questioned about events and things in informal situation.

Sr. No.	Competencies / Sub-competencies	3	2	1
22.	DEVELOP STUDENTS VALUES TOWARDS SCIENCE			
86.	use inquiry method to teach science			
87.	encourage students questioning of all things to seek out truths			
88.	encourage students search for data and their mining			
89.	varification of findings			
23.	USING EQUIPMENT AND CHEMICALS			
90.	I operate scientific equipment and instruments appropriately			
91.	I keep the apparatus and chemicals in order			
92.	I use all types of chemicals required for conducting experiment in the laboratory			
93.	I make simple solution in the laboratory			
24.	USING TEACHING-AIDS			
94.	I procure the teaching aids for classroom use			
95.	I use the teaching aids in the classroom			
96.	I use the indigenous materials in teaching science			
25.	CONDUCTING LABORATORY ACTIVITIES			
97.	preparing the list of apparatus and materials required in the experiment			
98.	orienting the students regarding the procedure of experiment			
99.	notifying the students of their responsibility			
100.	directing follow-up studies (discussion and writing up laboratory report)			
101.	using the materials and chemicals properly in the experiment			
26.	MAINTAINING SAFETY IN THE LABORATORY			
102.	informing the general safety precautions performing in the laboratory			
103.	practising the safety precautions with students			
104.	using the apparatus safely			
105.	demonstrating the use of first aids			

Sr. No.	Competencies / Sub-competencies	3	2	1
27.	DEVELOPING DIFFERENT TYPES OF TEST ITEMS			
	106.closed ended items			
	107.multiple choice items			
	108.true-false items			
	109.completion items			
	110.essay type items			
28.	CLASSIFYING TEST ITEMS INTO DOMAINS			
	111.cognitive objectives (measuring students' knowledge)			
	112.affective objectives (measuring feeling, attitude and interest)			
	113.psychomotor objectives (measuring students' manual skills			
29.	PREPARING RESULTS			
	114.scoring tests			
	115.compiling test results (written, oral, laboratory report, homework and assignment)			
	116.analysing result			
	117.making rank order			
30.	USING RESULTS			
	118.using test results for guiding students			
	119.diagnosing the students difficulties			
	120.taking appropriate steps to remove the students' difficulties.			

CENTRE OF ADVANCED STUDY IN EDUCATION
FACULTY OF EDUCATION AND PSYCHOLOGY
M.S. UNIVERSITY OF BARODA
BARODA, INDIA

Teacher Self-Evaluation Sheet (TSES)

Guide:
Prof.(Miss) M.M.Shah

Investigator:
Md.Delowar H.Shaikh

Dear Sir/Madam,

I have undertaken a Ph.D. research project on "Study of Teaching Competency of Secondary School Science Teachers of Dhaka City". For my study I need your co-operation. I assure you that the information to be furnished by you will be used for research purposes only and will be treated as confidential.

Please find here a questionnaire containing 30 competencies related to Secondary School Science teaching. I would like to know your opinion regarding your fitness into these competencies. Please go through the details with each competency given in the list and put cross (X) marks on the appropriate numerals in the columns provided at the right side of each.

EXAMPLE:

Sr. No.	Competency	Never	Rarely	Some Times	Often	Always
1.	Do you call your students by name ?	1	2	3	X	5

Thanking you,

Yours sincerely,