CLASSROOM MANAGEMENT AND METACOGNITION OF HIGH SCHOOL TEACHERS

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ABSTRACT

This paper focuses on the teaching learning process by evaluating the Classroom management and Metacognition of high school teachers. Classroom management is one of the greatest concerns of teachers and administrators when addressing the safety and well-being of students (Taylor & Franklin, 2009). Effective classroom management should be the primary responsibility of the classroom teacher with the students accepting the responsibility of their inappropriate behavior. Metacognitive strategies like planning, monitoring and self evaluation may experience a lot of stress, strain and anxiety that results in restlessness in teaching competence. The uses of appropriate metacognitive strategies help the teachers to overcome the teaching learning problems. There is no doubt that the standard of Classroom management and Metacognition of teachers in the classrooms determine the standard of the school as well as quality education too. The research was a survey type, which consists of purposive sampling of 100 high school teachers in Dindigul district. The investigator has constructed and validated the Metacognition Scale and Classroom Management Scale by self under the guidance of his research guide. Personal data sheet was prepared by the investigator. The interpretation of data was done with statistical methods in percentage analysis, mean, standard deviation and 't'-test. The result showed that there is significant relationship between the Classroom management and Metacognition of high school teachers.

Keywords: Classroom Management, Metacognition & High School Teachers.

INTRODUCTION

The quality of education depends upon the excellence of teaching learning process. Classroom management is one of the most important elements of the school programme. The Kothari Education Commission (1964-66) observed *"The destiny of India is being shaped in her classrooms. This we believe is no more rhetoric".* The students spend most of their time in the classroom and likewise most of the activities a school undertakes are done in the classrooms. The environment of a classroom has a great influence on the many-sided development of the personality of the students (Gupta, 2001). In the field of educational psychology, metacognition is an emerging concept. Metacognitive activities are there in every one's daily life. Metacognition enables an individual to become a successful learner. It is being associated with intelligence. According to Joseph F. Callahan (1977) "Teaching is helping students to learn. It is neither merely telling something to a group of listeners nor explaining some topic nor demonstrating your mastery of an important topic". If a pupil fails to show mastery of needed knowledge and skills, it indicates a failure of both, may be more of the teacher. Based on Flavell's (1979) typology two components of metacognition are developed and they are Metacognitive Knowledge, also called metacognitive awareness-it is what individuals know about themselves and others as cognitive processors. It relates to an individual's awareness of where they are in the learning process, their knowledge about content knowledge, personal learning strategies and what has been done and needs to be done. Metacognitive Regulation, occurs when individuals modify their thinking. It is the regulation of

cognition and learning experiences through a set of activities that help people control their learning (Flavell, 1979). It refers to judgment made regarding one's thinking capacities and limitations as these are employed in a particular situation or as self attributes.

1. Review of Related Studies

1.1 Indian Studies

Sheela, (2016) concluded that there was a significant difference between male and female primary school teachers in their classroom management and its dimensions-management of classroom time, management of classroom instruction and management of classroom discipline. There was a significant difference between nuclear and joint family primary school teachers in their classroom management and its dimensions-management of physical environment, management of material resources and management of classroom discipline, management of classroom time, management of classroom instruction, management of just behavior and management of attention and there was a significant relationship between emotional intelligence and classroom management. Jaleel & Premachandran (2016) revealed that there was no significant difference in the metacognitive awareness of secondary school students based on their locality and there was no significant difference in the metacognitive awareness of secondary school students based on management of school.

1.2 Abroad Studies

Tran (2016) stated that there was a significant relationship between coping styles and classroom disciplines. There was a significant relationship between perceived misbehavior, concern, coping responses and management techniques and there was a significant relationship between teachers' concerns about student misbehavior and their use of classroom management techniques. Hart & Memnun (2015) concluded that there was a significant relationship between elementary mathematics pre-service teachers' and knowledge about cognition and there was no significant relationship between elementary mathematics pre-service teachers' and regulation about cognition.

2. Significance of the Study

Metacognition refers to awareness of one's own thoughts. It has recently become a popular topic for theorizing and empirical research and is of interest because it implies that models of teaching might be divided that leads to more effective learning than the general level, currently attained in school, both theory and research, which are hampered by difficulties that have been encountered in defining metacognition and in assessing the degree of it in an individual. The metacognitive strategies are planning, monitoring and self evaluation and they may experience a lot of stress, strain and anxiety that results in restlessness in teaching competence. The uses of appropriate metacognitive strategies help the teachers to overcome the teaching learning problems. In a school system, where good classroom management is lacking, there is likely to be chaos which affects the teaching-learning process and the standard of students performance. Hence a good teacher should be acquainted with such problems, be able to prevent and find solutions to such problems in order to promote quality secondary education (Evertson & Harris, 1999). The problems of effective classroom management include the following:

At the high school level, first, in contrast to other levels, high school students are in a transition to adult ways of being in the world of independency and romantic relationship. They struggle and fail and experience stress that may affect their behavior in classrooms. Understanding classroom management in this context can mean adopting a more mindful approach that sees students as more than learners and participants in a classroom. Efficient teachers know how to convey that life in the classroom has a connection and relevance to students' future (Garrett, 2008). In Indian educational system, the following problems are commonly faced.

2.1 Crowded Classroom

The most crucial of all problems is overcrowded classroom which constitutes a serious problem in many school systems particularly in urban areas where space for new construction of classroom is at a premium and funding for such construction is limited. Teachers spend much time controlling and managing the students instead of

teaching, thereby making the teaching-learning process cumbersome especially in group work and co-operative learning (Burnett, 1995).

2.2 Classroom Structure

Another problem is classroom structure which means the physical setting of the classroom. It constitutes management behavior problems due to inadequate number of furniture, lack of space between furniture, inadequate chalkboard, poor ventilation and lighting, the size of the classroom and also the seating arrangement.

2.3 Instructional Delivery Method

This has been identified as one of the major factors that constitute classroom management problems. The teacher who uses only one method of teaching without varying his methods makes the lesson and class boring and uninteresting to the students. Teacher's insufficient knowledge of subject matter and poor communication causes inappropriate behavior and poor academic standard.

2.4 Lack of Teacher's Preparation

Many teachers have no comprehensive information to apply to the management of student's behavior problems in the classroom; instead they employ various ideas about discipline from disparate sources. Teacher training institutions which put emphasis on pedagogical methods and content knowledge does not do much to ameliorate this situation. There should be a program/course on classroom management problems and their solutions in teacher training institutions so that such problems will be properly identified and handled. Thus, many teachers embark on their career without having mastered an effective approach to managing students in the classroom. Some classroom management problems which are resultant effects of the above problems include absenteeism, noise making, rudeness, disobedience, naughtiness, truancy, restlessness, inattention, boredom, fighting (verbal and physical), sleeping, untidiness and refusal to do assignments (Regina, 2014).

Classroom management is one of the greatest concerns of teachers and administrators when addressing the safety and well-being of students. Effective classroom management should be the primary responsibility of the classroom teacher with the students accepting the responsibility of their inappropriate behavior. Effectively managing a classroom is possibly the most difficult aspect of the art of teaching. Once a teacher loses control of their classroom, it becomes increasingly more difficult for them to regain that control. Effective classroom management does not consist of just a list of rules and procedures, but the intellectual ability of the teacher. Without metacognitive strategies like planning, monitoring and self evaluation they may experience a lot of stress, strain and anxiety that results in restlessness in teaching competence. The use of appropriate metacognitive strategies help the teachers to overcome the teaching learning problems. Teachers who can apply metacognitive knowledge about teaching during the cognitive processes of comprehension are better able to regulate these processes and draw on the relevant knowledge sources in an efficient manner to build their classroom management. There is no doubt that the standard of Classroom management and Metacognition of teachers in the classrooms determine the standard of the students as well as quality education too.

3. Objectives

- To find out whether there is any significant difference in classroom management of high school teachers with regard to their gender.
- To find out whether there is any significant difference in classroom management of high school teachers with regard to their marital status.
- To find out whether there is any significant difference in classroom management of high school teachers with regard to their type of family.
- To find out whether there is any significant difference in metacognition of high school teachers with regard to their gender.
- To find out whether there is any significant difference in metacognition of high school teachers with regard to their marital status.
- To find out whether there is any significant difference in metacognition of high school teachers with regard to their type of family.

- To find out whether there is any significant relationship between classroom management and metacognition of high school teachers.

4. Hypotheses

Ho1:There is no significant difference between male and female high school teachers in their classroom management.

Ho2: There is no significant difference between married and unmarried high school teachers in their classroom management.

Ho3: There is no significant difference between joint and nuclear family high school teachers in their classroom management.

Ho4: There is no significant difference between male and female high school teachers in their metacognition.

Ho5: There is no significant difference between married and unmarried high school teachers in their metacognition.

Ho6: There is no significant difference between joint and nuclear family high school teachers in their metacognition.

Ho7: There is no significant relationship between metacognition and classroom management of high school teachers.

5. Delimitation of the Study

1. The study is limited to high school teachers in Dindigul district only.
2. The investigator has proposed to choose only 100 teachers as sample for the study.

5.1 Method Used

Survey research is used, which is a research method involving the use of standardized questionnaires or interviews to collect data about people and their preferences, thoughts, and behaviors in a systematic manner. Although census surveys were conducted as early as Ancient Egypt, survey as a formal research method was pioneered in the 1930-40s by sociologist Paul Lazarsfeld to examine the effects of the radio on political opinion formation of the United States. This method has since become a very popular method for quantitative research in the social sciences (Bhattacherjee, 2012). The investigator has adopted survey method in this study to find out the "Classroom Management and Metacognition of High School Teachers".

5.2 Population and Sample

A population can be defined as all people or items (unit of analysis) with the characteristics that one wishes to study. Simple random sampling involves randomly selecting respondents from a sampling. Sampling is the statistical process of selecting a subset (called a "sample") of a population of interest for purposes of making observations and statistical inferences about that population. Simple random sampling involves randomly selecting respondents from a sampling frame. But with large sampling frames, usually a table of random numbers or a computerized random number generator is used (Bhattacherjee, 2012). The population of the present study consists of teachers, those who are working in high schools of Dindigul district, Tamilnadu. The investigator has used simple random sampling technique for selecting the sample from the population. The sample consists of 100 high school teachers. Among them 19 were male and 81 were female high school teachers.

5.3 Tools Used

For the present study the investigator developed two tools namely, 1. ArVc's Scale on Metacognition (AVSM), which has two components namely, Knowledge of Cognition and Regulation of Cognition and 2. ArVc's Scale (shown in Appendix 1 and 2) on Classroom Management (AVSCM). The investigator grouped classroom management under selected seven dimensions, namely, Management of Planning, Management of Teaching Learning Resources, Management of Self-Discipline, Management Learning Atmosphere, Management of Student Behaviour, Management of Classroom Instruction and Management Evaluation.

5.4 Establishing the Validity

Validity refers to the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of test (Best & Khan, 1999). The validity of the tool has been found in different methods. For the present study, the investigator established the face validity for the tools.

5.5 Establishing Reliability

Reliability refers the extent to which differences in respondents observed scores are consistent with difference in their true scores (Furr & Bacharach, 2008). Of the different methods, split-half method and test-retest method were used to determine the reliability coefficient of the tool. To establish the reliability of AVSM by test-retest method, it was re-administered to the same set of teachers after an interval of 15 days. The two sets of scores were correlated using Pearson product moment correlation and the value was found to be 0.897, which is substantial. To establish the reliability of AVSCM by test-retest method, it was re-administered to the same set of teachers after an interval of 15 days. The two sets of scores were correlated using Pearson product moment correlation and the value was found to be 0.867, which is substantial.

5.6 Statistics Techniques Used

Percentage analysis, mean, standard deviation, 't' test and correlation were used in this study.

6. Analysis of Data

It is inferred from Table 1 that, the calculated 't' value (2.406) is greater than the table value (1.984) at 5% level of significance. Hence the null hypothesis is rejected. So there is a significant difference between male and female high school teachers in their management of evaluation. But the calculated 't' values (1.156, 1.053, 0.352, 0.952, 0.974, 0.876 and 1.509) is less than the table value (1.984) at 5% level of significance. Hence the null hypothesis is accepted. So there is no significant difference between male and female high school teachers in their management of planning, management of teaching learning resources, management of self-discipline, management of student behavior, management of learning atmosphere, management of classroom instruction and overall classroom management.

It is inferred from Table 2 that, the calculated 't' value (2.253) is greater than the table value (1.984) at 5% level of significance. Hence the null hypothesis is rejected. So there is a significant difference between married and unmarried high school teachers in their management of self-discipline. But the calculated 't' values (0.573, 0.135, 0.139, 0.322, 1.400, 0.154 and 0.740) is less than the table value (1.984) at 5% level of significance. Hence the null hypothesis is accepted. So there is no significant difference between married and unmarried high school teachers in their management of planning, management of teaching learning resources, management of student behavior,

Dimensions	Gender	N	Mean	S.D	Calculated 't' value	'P' Value	Rem-arks
Management of Planning	Male	19	40.95	7.420	1.156	0.260	NS
	Female	81	43.02	5.198			
Management Teaching Learning Resources	Male	19	42.58	5.048	1.053	0.301	NS
	Female	81	43.96	5.607			
Management of Self-Discipline	Male	19	44.26	4.569	0.352	0.727	NS
	Female	81	44.72	6.720			
Management of Student Behaviour	Male	19	50.58	6.793	0.952	0.350	NS
	Female	81	52.19	5.829			
Management of Learning Atmosphere	Male	19	46.89	4.358	0.974	0.336	NS
	Female	81	48.07	6.140			
Management of Classroom Instruction	Male	19	55.21	4.779	0.876	0.387	NS
	Female	81	56.35	6.215			
Management of Evaluation	Male	19	34.63	6.335	2.406	0.024	S
	Female	81	38.42	5.443			
Overall Classroom Management	Male	19	315.11	29.614	1.509	0.142	NS
	Female	81	326.73	32.628			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 1. Difference between Male and Female High School Teachers in their Classroom Management

Dimensions	Marital Status	N	Mean	S.D	Calculated 't' value	'P' Value	Rem-arks
Management of Planning	Married	86	42.77	5.679	0.573	0.574	NS
	Unmarried	14	41.79	5.989			
Management Teaching Learning Resources	Married	86	43.41	5.506	0.135	0.194	NS
	Unmarried	14	45.50	5.360			
Management of Self-Discipline	Married	86	44.23	6.595	2.253	0.033	S
	Unmarried	14	47.07	3.892			
Management of Student Behaviour	Married	86	51.92	5.890	0.139	0.891	NS
	Unmarried	14	51.64	7.012			
Management of Learning Atmosphere	Married	86	47.78	5.940	0.322	0.751	NS
	Unmarried	14	48.29	5.384			
Management of Classroom Instruction	Married	86	55.83	6.041	1.400	0.178	NS
	Unmarried	14	58.00	5.277			
Management of Evaluation	Married	86	37.66	5.784	0.154	0.879	NS
	Unmarried	14	37.93	6.006			
Overall Classroom Management	Married	86	323.59	32.569	0.740	0.469	NS
	Unmarried	14	330.21	30.813			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 2. Difference between Married and Unmarried High School Teachers in their Classroom Management

management of learning atmosphere, management of classroom instruction, management of evaluation and overall classroom management.

It is inferred from Table 3 that, the calculated 't' values (0.242, 0.451, 1.019, 1.368, 0.317, 0.307, 0.746 and 0.217) is less than the table value (1.984) at 5% level of significance. Hence the null hypothesis is accepted. So there is no significant difference between nuclear and joint family high school teachers in their classroom management and its dimensions.

It is inferred from Table 4 that, the calculated 't' value (0.396, 0.046 & 0.223) is less than the table value (1.984) at 5% level of significance. Hence the null hypothesis is accepted. So there is no significant difference between male and female high school teachers in their knowledge of cognition, regulation of cognition and metacognition.

It is inferred from Table 5 that, the calculated 't' value (2.169, 3.278 & 3.045) is greater than the table value (1.984) at 5% level of significance. Hence the null hypothesis is rejected. So there is a significant difference between married and unmarried high school teachers in their knowledge of cognition, regulation of cognition and metacognition.

It is inferred from Table 6 that, the calculated 't' value (2.276) is greater than the table value (1.984) at 5% level of significance. Hence the null hypothesis is rejected. So there is a significant difference between married and unmarried high school teachers in their regulation of cognition. But the calculated 't' value (0.594 & 1.602) is less than the table value (1.984) at 5% level of significance. Hence the null hypothesis is accepted. So there is no significant difference between married and unmarried high school teachers in their knowledge of cognition and metacognition.

It is inferred from Table 7 that, the calculated 'γ' value (0.552) is greater than the table value (0.1966) for 98 df at 5% level of significance. Hence the null hypothesis is

Dimensions	Type of Family	N	Mean	S.D	Calculated 't' value	'P' Value	Remarks
Management of Planning	Nuclear	75	42.71	5.844	0.242	0.810	NS
	Joint	25	42.40	5.362			
Management Teaching Learning Resources	Nuclear	75	43.55	5.346	0.451	0.655	NS
	Joint	25	44.16	6.060			
Management of Self-Discipline	Nuclear	75	44.28	6.538	1.019	0.314	NS
	Joint	25	45.68	5.743			
Management of Student Behaviour	Nuclear	75	52.36	5.952	1.368	0.179	NS
	Joint	25	50.44	6.117			
Management of Learning Atmosphere	Nuclear	75	47.75	5.975	0.317	0.753	NS
	Joint	25	48.16	5.528			
Management of Classroom Instruction	Nuclear	75	56.01	5.682	0.307	0.761	NS
	Joint	25	56.48	6.856			
Management of Evaluation	Nuclear	75	37.45	5.832	0.746	0.460	NS
	Joint	25	38.44	5.694			
Overall Classroom Management	Nuclear	75	324.11	32.129	0.217	0.829	NS
	Joint	25	325.76	33.288			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 3. Difference between Joint and Nuclear Family High School Teachers in their Classroom Management

Dimensions	Gender	N	Mean	S.D	Calculated 't' value	'P' Value	Remarks
Knowledge of Cognition	Male	19	84.16	9.720	0.396	0.695	NS
	Female	81	83.19	9.271			
Regulation of Cognition	Male	19	87.21	11.896	0.046	0.964	NS
	Female	81	87.07	10.478			
Overall Meta cognition	Male	19	171.37	19.800	0.223	0.826	NS
	Female	81	170.26	18.478			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 4. Difference between Male and Female High School Teachers in their Metacognition

Dimensions	Marital Status	N	Mean	S.D	Calculated 't' value	'P' Value	Remarks
Knowledge of Cognition	Married	86	82.57	9.355	2.169	0.091	S
	Unmarried	14	88.29	7.640			
Regulation of Cognition	Married	86	86.22	11.087	3.278	0.018	S
	Unmarried	14	92.50	5.599			
Overall Meta cognition	Married	86	168.79	18.972	3.045	0.028	S
	Unmarried	14	180.79	12.595			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 5. Difference between Married and Unmarried High School Teachers in their Metacognition

Dimensions	Type of Family	N	Mean	S.D	Calculated 't' value	'P' Value	Remarks
Knowledge of Cognition	Joint	75	83.11	10.065	0.594	0.554	NS
	Nuclear	25	84.16	6.688			
Regulation of Cognition	Joint	75	86.09	11.774	2.276	0.025	S
	Nuclear	25	90.12	5.659			
Overall Meta cognition	Joint	75	169.20	20.550	1.602	0.113	NS
	Nuclear	25	174.28	10.522			

(At 5% level of significant the table value of 't' is 1.984, S- Significant, NS- Not Significant)

Table 6. Difference between Permanent and Temporary High School Teachers in their Metacognition

N	ΣX	ΣY	Σx^2	Σy^2	ΣXY	Calculated 'γ' value	'P' Value	Remarks
100	17222	32784	296597284	1074790656	564606048	0.552	0.000	S

(At 5% level of significant the table value is 1.966, S- Significant)

Table 7. Difference between Permanent and Temporary High School Teachers in their Metacognition

rejected. Thus, the result that there is significant relationship between classroom management and metacognition of high school teachers.

7. Results and Discussion

Table 1 reveals that there is a significant difference between male and female high school teachers in their management of evaluation. But there is no significant difference between male and female high school teachers in their management of planning, management of teaching learning resources, management of self-discipline, management of student behavior, management of learning atmosphere, management of classroom instruction and overall classroom management. While comparing the mean scores, the female teachers are better than the male high school teachers. This may be due to the fact that generally, females are well known in managing relationship with others. They are very clever. They give more attention in their teaching learning process. Female teachers spend most of their time in the classroom with the students. As they are more flexible and adjustable they are better than males in their classroom management and evaluation.

Table 2 reveals that there is no significant difference between married and unmarried high school teachers in their management of planning, management of teaching learning resources, management of student behavior, management of learning atmosphere, management of classroom instruction, management of evaluation and overall classroom management. But there is a significant difference between married and unmarried high school teachers in their management of self-discipline. While comparing the mean scores, the unmarried are better than the married high school teachers. This may be due to the fact that unmarried high school teachers have fewer commitments in their family, so they have the abilities of problem solving and peer-mediation which is helpful to reset the learning atmosphere in classroom management.

Table 3 reveals that there is no significant difference between joint and nuclear family high school teachers in their management of planning, management of teaching learning resources, management of student behavior, management of self-discipline, management of learning atmosphere, management of classroom instruction, management of evaluation and overall classroom management.

Table 4 reveals that there is no significant difference between male and female high school teachers in their knowledge of cognition, regulation of cognition and metacognition.

Table 5 reveals that there is no significant difference between married and unmarried high school teachers in their knowledge of cognition and overall metacognition. But there is significant difference between married and unmarried high school teachers in their regulation of cognition. While comparing their mean scores the unmarried teachers are better than the married high school teachers. This may be due to the fact that they have no commitments in their family life, they feel free to regulate their knowledge and get success in their teaching field.

Table 6 reveals that there is significant difference between joint and nuclear family high school teachers in their knowledge of cognition, regulation cognition and overall metacognition. While comparing the mean scores, the joint family high school teachers are better than the nuclear family high school teachers in their knowledge of cognition, regulation cognition and overall metacognition. This may be due to the fact that joint family high school teachers have more exposure within their family that helps them to set goals and also it helps them to plan, monitor and evaluate their thinking process to reach their set goals.

Table 7 reveals that there is significant relationship between classroom management and metacognition of high school teachers. This may be due to the fact that the students spend most of their time in the classroom and likewise most of the activities are done in the classroom only. The environment of a classroom has a great influence on the multiple development of the student's personality. The better the classroom environment, the skill of classroom management of teachers is better and it will make the students to perform well in the classroom.

8. Recommendations

- Practical oriented metacognition strategies should be included in the curriculum. Based on their performances

teachers especially male teachers with better metacognition may be identified through continuous and comprehensive evaluation and awarded prizes at the end of the year.

- The administrators should insist high school teachers to participate in the training programme on classroom management skills, who have failed to attend during their service and metacognitive teaching strategies must be included in the in-service training programme to the teachers.
- Create metacognitive environment in schools. In the creation of a metacognitive environment, teachers should monitor and apply their knowledge deliberately, in modelling cognitive behaviour to assist students in becoming aware of their own thinking.
- The school should organize creative activities like puzzles, models making, memory test and competitions that will stimulate cognitive and non-cognitive abilities, memory, problem solving skills, comprehension and language development of married high school teachers.
- The male high school teachers may be provided with special professional orientation training programme to develop their classroom management skills by the management.
- Married high school teachers can be given opportunities to organize and involve in metacognitive and classroom management programme inside their school premises.

Conclusion

The result of this study indicates that the joint family high school teachers are better than the nuclear family high school teachers in their knowledge of cognition, regulation cognition and overall metacognition. More funds may be allotted for teacher education institutions for having the activities developing metacognition of prospective teachers. Metacognitive skills are essential for the 21st century teachers. This would enable the teachers to cope up with the new situations and they will become good thinkers in near future.

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Appendix 1

ArVc's Scale on Metacognition (AVSM) – Final Draft

Sl.No.	Items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
	Knowledge of Cognition					
1	I learn lessons in each and every action.					
2	I know that what I need during my teaching.					
3	I know that where my attention is distracted during my teaching.					
4	I know how much effort I should put to explain each and every concept.					
5	I know how to teach even a complex concept.					
6	I know to memorize a concept.					
7	I know about the sharpness of my memory.					
8	I know many ways to teach more about a concept which I have to teach.					
9	I know the factors contributing to effective teaching.					
10	I understand my intellectual strengths and weaknesses.					
11	I create my own examples to make information more meaningful.					
12	I am good at organizing information.					
13	I can perceive the results of my teaching activities.					
14	I do not go without rehearsing my lesson to myself once.					
15	I can visualize my teaching.					
16	I will not hesitate to change the inferences of my interpretations.					
17	I am consciously aware of my performance in the class.					
18	When I teach concept I think of similar concept that I have listened to.					
19	I give my fullest attention to whatever the subject matter I teach.					
20	I imagine beyond the printed words in the text book.					
	Regulation of Cognition					
21	I have plan when I begin a work.					
22	If I fail in my efforts, I will try to find the reason for the failure.					
23	Whenever I feel that I am not able to follow a method during my teaching, I will change the method of teaching at once.					
24	I know what type of environment is needed for me to teach with full attention.					
25	I organize appropriate environment for my teaching. If the teaching environment is not suitable, I won't worry for that.					
26	I won't get depressed when I failed in my effort.					
27	I know about my target of my teaching. I will try to achieve it as much as possible.					
28	I will evaluate myself whether my efforts are going on in a right way.					
29	I know the ways to regulate the distraction and attention during my teaching.					
30	If I adopt a specific method, I can recall concepts which I forgot.					
31	I won't get off from my teaching even there are some barriers.					
32	I setup specific objectives, before I teach.					
33	I think of possible ways of solving a problem and choose the best one.					
34	I ask myself periodically "Am I able to meet my goal?"					
35	I monitor the plan of action of mine.					
36	I have done well to deserve my own appreciation.					
37	I introspect myself about my teaching.					

38	I use apt word which reflects my thoughts clearly.
39	Every day I plan to approach my class differently.
40	I am aware that my today's mistakes affect me the next day.
41	I ask myself how well I did once I finish my teaching.

Appendix 2

ArVc's Scale of Classroom Management (AVSCM) – Final Draft

Sl.No.	Items	Always	Sometimes	Occasionally	Seldom	Never
	Management of Planning					
1	I plan to rectify previous year feedback and comments in this academic year.					
2	I plan to choose the best teaching method for each topic in my classroom teaching.					
3	I plan to identify and give remedial measures to the slow learners in my classroom.					
4	I discuss with subject experts for clear understanding of my subject.					
5	I plan to discuss with my peer group teachers before the beginning of the year.					
6	I prepare an advance plan of evaluation procedures before the beginning of the year.					
7	I follow the different teaching techniques based on the different levels of learners.					
8	I prepare a learners yearly plan before the commencement of the year.					
9	I plan my teaching time carefully.					
10	I explain the consequences for misbehaving in the beginning of the academic year.					
	Management of Teaching Learning Resources					
11	I prepare my own teaching materials for my teaching.					
12	I motivate my students also to prepare needed learning materials.					
13	My teaching aids are visible to all the students.					
14	My teaching aids are apt for my teaching given lessons.					
15	I allow my students to do activities by using my teaching aids.					
16	I use black board for drawing pictures.					
17	I see to it that the blackboard in my classroom is visible to all.					
18	My teaching aids are not unusable for my teaching.					
19	I use teaching aids correctly and aptly.					
20	I take more efforts to prepare improvised apparatus.					
	Management of Self-Discipline					
21	I finish my teaching every day in time.					
22	I come to school in time.					
23	I have a good code of conduct.					
24	I dress neatly every day.					
25	My dress will not distract my student's attention.					
26	I don't sit in my chair while teaching.					
27	I never use filthy words in my class.					
28	I want to be a role model to my students by my self-discipline.					
29	I don't ask students to rub the black board.					
30	I don't perform my own personal works during the class hours.					
	Management of Student Behaviour					
31	I am not affected by the prejudiced behavior of my students.					
32	When the rules do not work in my class. I replace them with the new ones based on my experience.					
33	I avoid unnecessary discussion during the class.					
34	I have no favorite student.					
35	I have never provided collective punishment to the class.					
36	I hope a word of praise is more effective than hundred words of report or punishment.					
37	In no way, I abuse my students.					
38	I don't impose any under authority on my students.					
39	If students are talking during my teaching, I pause and look at them.					
40	I walk towards the problematic students and stop near them and teach.					
41	I ask question to the students who are not paying attention.					
42	I keep an eye on my students always.					

	Management of Learning Atmosphere
43	I allow my students to say the allied examples relevant to my topic.
44	I feel happy when students interact with me during my teaching.
45	I encourage group activities in the classroom.
46	I give positive reinforcement when the students respond.
47	I do not punish my students when they answer wrongly.
48	I encourage my students to raise questions whenever they have doubts.
49	The noises from outside the class do not disturb me.
50	I can easily seek the co-operation of my headmaster to maintain proper ventilation, lighting and furniture.
51	I educate my students about the desired postures during my class.
52	I am friendly with all my students.
53	I function like a learner and a companion for the students in the classroom.
	Management of Classroom Instruction
54	I select innovative teaching methods to facilitate students' learning.
55	I maintain pupil's interest and attention in classroom teaching.
56	I make my class room instruction interesting and lively.
57	I often use group works since they are necessary for students' social development.
58	I direct the students' transition from one learning activity to another.
59	I pay attention to the individual differences during my teaching.
60	I prepare my teaching aids keeping in mind the different learning abilities of my pupils.
61	I know very well the mental competencies of every student in my class.
62	I care for the whole some development of the students in the classroom.
63	I have never made repeated request to my students for paying attention in the class.
64	I insist my students to raise their hands before raising questions or answering a question.
65	I cannot tolerate students copying down the answers of his classmates.
66	I get everyone's attention before beginning class.
	Management of Evaluation
67	I administrate appropriate tests to measure the quality of student's learning.
68	I use test results and findings to improve teaching-learning process.
69	I report student's achievement to parents through progress report.
70	I prompt my students to give correct answers when they are not able figure them out.
71	I practice continuous and comprehensive evaluation to assess students in my class.
72	I encourage students peer evaluation.
73	I encourage students to evaluate their teachers.
74	I practice peer evaluation for my professional growth.
75	I practice self-evaluation for my professional growth.

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