

Chapter IV

Analysis and Interpretation of Data

“Analysis is the ordering – the breaking down of data into constituent parts in order to obtain answer to research questions”. ----**Kerlinger**

The analysis of the present study is based on quantitative and qualitative interpretation.

4.1 Quantitative Analysis (Teachers’ Technological Pedagogical and Content Knowledge)

“Quantitative research is the systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques”.²³

Objectives:

1. **To study the learning outcomes of students in relation to pedagogical content knowledge of social science teachers in elementary schools.**

Hypotheses:

¹H₀: There is no correlation between student’s learning outcomes and Pedagogical Content Knowledge of social science teachers in elementary schools. i.e. ¹H₀: $r_1 = 0$

¹H₁: There is positive correlation between student’s learning outcomes and Pedagogical Content Knowledge of social science teachers in elementary schools. i.e. ¹H₁: $r_1 > 0$ ”

Table 1: Learning outcomes of students in relation to pedagogical content knowledge of social science teachers in elementary schools

Correlations				
		Students Mean Score	PCK	Remark
Student’s Mean Score	Pearson Correlation	1	.398**	WEAK POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
PCK	Pearson Correlation	.398**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

²³Lisa M. (2008). *The SAGE Encyclopedia of Qualitative Research Methods*. Los Angeles: SAGE Publications. ISBN 1-4129-4163-6

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Thus, there is positive correlation between student's learning outcomes and Pedagogical Content Knowledge of social science teachers in elementary schools. It reflects that if teachers keep sound knowledge and deliver the content with appropriate pedagogy, then achievement of the students is more.

2. To study the learning outcomes of students in relation to technological knowledge of social science teachers in elementary schools.

Hypothesis:

H_0 : There is no correlation between student's learning outcomes and technological Knowledge of social science teachers in elementary schools. i.e. $H_0: r_2 = 0$

H_1 : There is positive correlation between student's learning outcomes and technological Knowledge of social science teachers in elementary schools. i.e. $H_1: r_2 > 0$

Table 2. Learning outcomes of students in relation to technological knowledge of social science teachers in elementary schools

Correlations				
		Students Mean Score	TK	Remark
Student's Mean Score	Pearson Correlation	1	.572**	MODERATE POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
TK	Pearson Correlation	.572**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Thus, there is positive correlation between student's learning outcomes and technological Knowledge of social science teachers in elementary

schools. This shows that teaching becomes more effective when any kind of technology is used in classroom. Also, learners take interest in learning and sitting duration increases in the class while teachers use appropriate technology in their teaching. Teacher can hold the concentration of the learners for the longer period.

3. To study the learning outcomes of students in relation to pedagogical knowledge of social science teachers in elementary schools”.

Hypothesis:

³H₀: There is no correlation between student’s learning outcomes and pedagogical Knowledge of social science teachers in elementary schools. i.e. ³H₀: r₃ = 0

³H₁: There is positive correlation between student’s learning outcomes and pedagogical Knowledge of social science teachers in elementary schools. i.e. ³H₁: r₃ > 0

Table 3. Learning outcomes of students in relation to pedagogical knowledge of social science teachers in elementary schools

Correlations				
		Students Mean Score	PK	Remark
Students Mean Score	Pearson Correlation	1	.573**	MODERATE POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
PK	Pearson Correlation	.573**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than (α =0.01), null hypothesis is rejected at 0.01level of significance. Therefore, we conclude that there is positive correlation between student’s learning outcomes and pedagogical Knowledge of social science teachers in elementary schools. It shows that teaching methods used in the classroom matters and effecting teaching includes various types of teaching style. Pedagogical Knowledge is essential at the time of recruitment and the efficiency comes after experience of teaching. Here comes the interest of the teacher towards teaching.

4. To study the learning outcomes of students in relation to content knowledge of social science teachers in elementary schools”.

Hypothesis:

⁴H₀: There is no correlation between student’s learning outcomes and Content Knowledge of social science teachers in elementary schools. i.e. ⁴H₀: r₄ = 0

⁴H₁: There is positive correlation between student’s learning outcomes and Content Knowledge of social science teachers in elementary schools. i.e. ⁴H₁:r₄> 0

Table 4.Learning outcomes of students in relation to content knowledge of social science teachers in elementary schools

Correlations				
		Student’s Mean Score	CK	Remark
Student’s MeanScore	Pearson Correlation	1	.428**	LOW POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
CK	Pearson Correlation	.428**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students’ learning outcomes and Content Knowledge of social science teachers in elementary schools. The content knowledge effects teaching and the updated version of current development in the field of education enhance achievement of the students. Where the teacher is not having sound knowledge of the subject than there is no question of using the appropriate pedagogy. It reflects the lack of basic knowledge of the teachers.

5. To study the learning outcomes of students in relation to technological pedagogical knowledge of social science teachers in elementary schools”.

Hypothesis:

⁵H₀: There is no correlation between student’s learning outcomes and technological pedagogical Knowledge of social science teachers in elementary schools. i.e. ⁵H₀: r₅ = 0

⁵H₁: There is positive correlation between student’s learning outcomes and technological pedagogical Knowledge of social science teachers in elementary schools. i.e. ⁵H₁:r₅> 0

Table 5. Learning outcomes of students in relation to technological pedagogical knowledge of social science teachers in elementary schools

Correlations				
		Student’s Mean Score	TPK	Remark
Student’s Mean Score	Pearson Correlation	1	.534**	MODERATE POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
TPK	Pearson Correlation	.534**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between student’s learning outcomes and technological pedagogical Knowledge of social science teachers in elementary schools. The various kinds of technology is used by the teacher and that effects and put impression on the mind of learners for the long time.

6. To study the learning outcomes of students in relation to technological content knowledge of social science teachers in elementary schools”.

Hypothesis:

H_0 : There is no correlation between student’s learning outcomes and technological content Knowledge of social science teachers in elementary schools. i.e. $H_0: r_6 = 0$

H_1 : There is positive correlation between student’s learning outcomes and technological content Knowledge of social science teachers in elementary schools. i.e.

$H_1: r_6 > 0$

Table 6. Learning outcomes of students in relation to technological content knowledge of social science teachers in elementary schools

Correlations				
		Student’s Mean Score	TCK	Remark
Student’s Mean Score	Pearson Correlation	1	.384**	LOW POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
TCK	Pearson Correlation	.384**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students’ learning outcomes and technological content Knowledge of social science teachers in elementary schools. Here teachers are not using technology in the classroom. It may be because they are not acquainting with the technology of schools are not providing the resources.

7. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools”.

Hypothesis:

⁷H₀: There is no correlation between student’s learning outcomes and technological pedagogical content Knowledge of social science teachers in elementary schools.

i.e. ⁷H₀: $r_7 = 0$

⁷H₁: There is positive correlation between students’ learning outcomes and technological pedagogical content Knowledge of social science teachers in elementary schools. i.e. ⁷H₁: $r_7 > 0$

Table 7. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools

Correlations				
		Student’s Mean Score	TPCK	Remark
Student’s Mean Score	Pearson Correlation	1	.566**	MODERATE POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	276	276	
TPCK	Pearson Correlation	.566**	1	
	Sig. (2-tailed)	.000		
	N	276	276	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students’ learning outcomes and technological pedagogical content Knowledge of social science teachers in elementary schools. Here the teacher is using partially the technology with the subject matter.

8. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Ateli”.

Hypothesis:

⁸H₀: There is no correlation between student’s learning outcomes and technological content Knowledge of social science teachers in elementary schools of Ateli block.

i.e. ⁸H₀: r₈ = 0

⁸H₁: There is positive correlation between student’s learning outcomes and technological content Knowledge of social science teachers in elementary schools of Ateli block. i.e. ⁸H₁: r₈ > 0

Table 8. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Ateli

Correlations				
		Ateli Students Mean Scores	Ateli TPCK	Remark
Ateli Students Mean Scores	Pearson Correlation	1	.550**	MODERATE POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	50	50	
Ateli TPCK	Pearson Correlation	.550**	1	
	Sig. (2-tailed)	.000		
	N	50	50	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than (α =0.01), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students’ learning outcomes and technological content Knowledge of social science teachers in elementary schools of Ateli block. This is an appreciable sign that the result is moderate and resources are available in the schools and teachers are free to use them.

9. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Narnaul.

Hypothesis:

9H_0 : There is no correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Narnaul block. i.e. ${}^9H_0: r_9 = 0$

9H_1 : There is positive correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Narnaul Block. i.e. ${}^9H_1: r_9 > 0$

Table 9. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Narnaul

Correlations				Remark
		Narnaul Students Mean Scores	Narnaul TPCK	
Narnaul Students Mean Scores	Pearson Correlation	1	.438**	LOW POSITIVE CORRELATION
	Sig. (2-tailed)		.002	
	N	48	48	
Narnaul TPCK	Pearson Correlation	.438**	1	
	Sig. (2-tailed)	.002		
	N	48	48	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Narnaul Block. This is not an appreciable result that the teachers are not teaching into positive spirit and also not using the resources optimally.

10. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Nangal Chaudhary.

Hypothesis:

${}^{10}H_0$: There is no correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Nangal Chaudhary block. i.e. ${}^{10}H_0: r_{10} = 0$

¹⁰H₁: There is positive correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Nangal Chaudhary block. i.e. ¹⁰H₁: r₁₀> 0

Table 10. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Nangal Chaudhary

Correlations				Remarks
		Nangal Chaudhary Students Mean Scores	Nangal Chaudhary/TP CK	
Nangal Chaudhary Students Mean Scores	Pearson Correlation	1	.758**	HIGH POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	55	55	
Nangal Chaudhary TPCK	Pearson Correlation	.758**	1	
	Sig. (2-tailed)	.000		
	N	55	55	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students' learning outcomes and technological content Knowledge of social science teachers in elementary schools of Nangal Chaudhary block. This is an appreciable sign that the result is very high and resources are available in the schools and teachers are free to use them. Teachers are using their own resources and discuss students about the subject matter more comprehensively.

11. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Kanina.

Hypothesis:

¹¹H₀: There is no correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Kanina block. i.e. ¹¹H₀: r₁₁ = 0

¹¹H₁: There is positive correlation between students' learning outcomes and technological content Knowledge of social science teachers in elementary schools of Kanina block. i.e. ¹¹H₁: r₁₁ > 0

Table 11. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Kanina

Correlations				Remarks
		Kanina Students Mean Scores	Kanina TPCK	
Kanina Students Mean Scores	Pearson Correlation	1	.823**	HIGH POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	51	51	
Kanina TPCK	Pearson Correlation	.823**	1	
	Sig. (2-tailed)	.000		
	N	51	51	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of p = 0.000 is less than (α = 0.01), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students' learning outcomes and technological content Knowledge of social science teachers in elementary schools of Kanina block. This is an appreciable sign that the result is highly positive which means and resources are available in the schools and teachers are free to use them. Students are also using the resources for their information and preparing the assignment.

12. To study the learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Mahendergarh”.

Hypothesis:

¹²H₀: There is no correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Mahendergarh block. i.e. ¹²H₀: r₁₂ = 0

$^{12}H_1$: There is positive correlation between student's learning outcomes and technological content Knowledge of social science teachers in elementary schools of Mahendergarh block.i.e. $^{12}H_1: r_{12} > 0$

Table 12. Learning outcomes of students in relation to technological, pedagogical and content knowledge of social science teachers in elementary schools of block Mahendergarh

Correlations				
		Mahendergarh Students Mean Scores	Mahendergarh TPCK	Remark
Mahendergarh Students Mean Scores	Pearson Correlation	1	.796**	HIGH POSITIVE CORRELATION
	Sig. (2-tailed)		.000	
	N	72	72	
Mahendergarh TPCK	Pearson Correlation	.796**	1	
	Sig. (2-tailed)	.000		
	N	72	72	
**. Correlation is significant at the 0.01 level (2-tailed).				

Inference:

Since the value of $p = 0.000$ is less than ($\alpha = 0.01$), null hypothesis is rejected at 0.01 level of significance. Therefore, we conclude that there is positive correlation between students' learning outcomes and technological content Knowledge of social science teachers in elementary schools of Mahendergarh block. This is an appreciable sign that the result is highly positive which means and resources are available in the schools and teachers are free to use them. Students are also using the resources for their information and preparing the assignment.

4.2 Quantitative Analysis

Pedagogy and Teaching Learning Process at Elementary Level

On the basis of the questionnaire which was prepared by the researcher; the following item wise result occurs:

Q.1 How Teaching of Social studies subject is helpful in Developing Values?

Table No13: Components of Developing Values by teaching social science subject

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	Total
1	Knowledge Structure	32	30	35	41	60	198
2	Development of Competence in Problem Solving	41	38	41	38	55	213
3	Relevant Understanding	25	45	29	48	25	172
4	Development of Desirable Attitudes	28	42	48	50	65	233
5	Provides Training in Co-Operation	33	35	45	46	62	221
6	Development of Character	45	36	50	35	70	236
7	Development of Thinking and Reasoning Power	44	44	42	32	76	238
8	Development of Global Understanding	35	25	43	43	55	201
9	Development of Socio cultural Understanding	29	28	46	28	58	189
10	Development of Habits of Adjustability and Flexibility	30	30	35	35	55	185
11	Development of Skill in Responsible Group Participation	10	12	25	18	29	94
12	Development of Healthy Teacher Pupil Relationship	45	38	30	33	62	208
13	Development of Skill in Enquiry and Decision Making	48	28	32	42	28	178
14	Development of Skills of Tolerance and Openness	10	40	30	12	33	125
15	Development of Skills in Studying and Learning	11	34	40	20	10	115
16	Provides Basis for Specialization	5	38	25	10	12	90

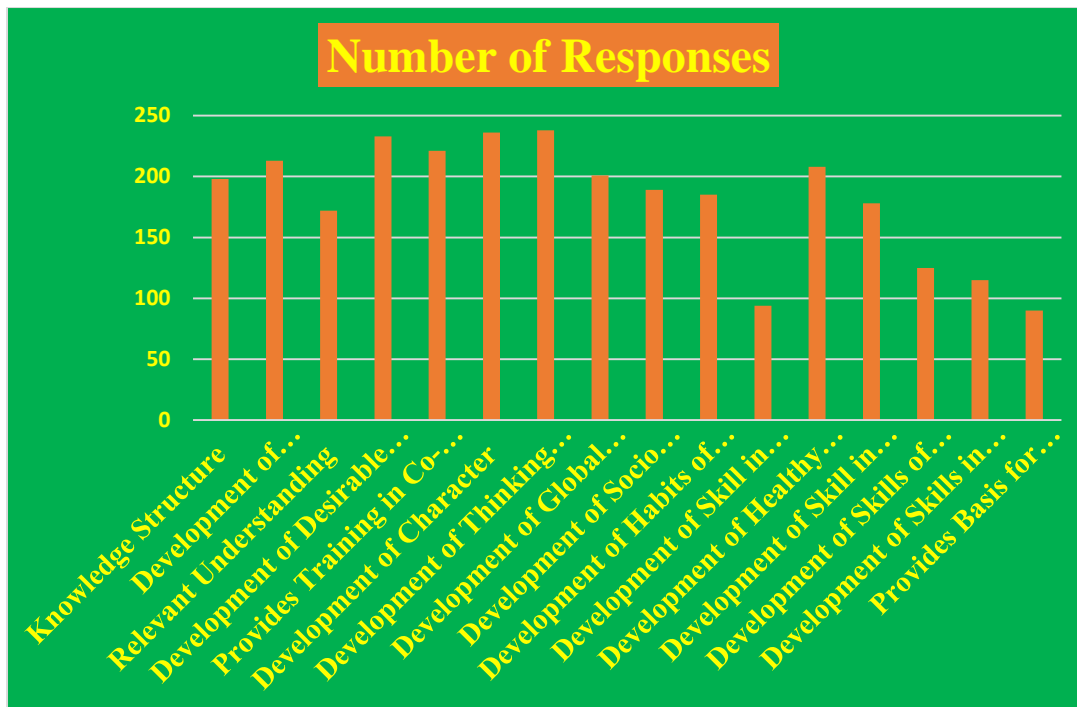


Figure 5: Shows Components of Developing Values by teaching social science subject

Interpretation:

The teaching of Social studies subject is helpful in Developing Values. For developing the values a teacher must keep the Knowledge of content, knows how to develop the competence in Problem Solving. He must keep relevant understanding of the subject and can be capable of developing desirable attitudes in children. Through various teaching methods like organizing events teacher can provide straining in Co-Operation and develop Character in children. Teacher needs to develop thinking and reasoning power for global understanding among the children. Teacher of social studies shall develop socio cultural understanding and inculcate habits of adjustability and flexibility. One another component of this value development is development of skill in responsible group participation. Here development of healthy teacher pupil relationship exist. Development of Skill in Enquiry and Decision Making, Development of Skills of Tolerance and Openness, Development of Skills in Studying and Learning and provides basis for specialization certainly helps in the developing the

values. All these components are not teaching into the spirit as per the data shows. Out of 276 teachers only 198 are confident for the first component. 213 teachers are confident for the second component. 172 teachers are confident for the third component. 233 teachers are confident for the fourth component. 221 teachers are confident for the fifth component. 236 teachers are confident for the sixth component. 238 teachers are confident for the seventh component. 201 teachers are confident for the eighth component. 189 teachers are confident for the ninth component. 185 teachers are confident for the tenth component. 94 teachers are confident for the eleventh component. 208 teachers are confident for the twelfth component. 178 teachers are confident for the thirteenth component. 125 teachers are confident for the fourteenth component. 115 teachers are confident for the fifteenth component and 90 teachers are confident for the sixteenth component. The bar chart shows at a glance that hundred percent teachers are not confident in all the components neither in any single component all the teachers claim. It was also observed that many teachers did not understand the questions properly.

Q.2 What is the Principles of Curriculum Construction/ Curriculum preparation in your school? Do you participate in Curriculum designing?

Table 14. Components of Curriculum Construction/ Curriculum preparation

	Components	Responses of teachers					Total
		Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	
1	Child centeredness	40	42	44	40	69	235
2	Community centeredness	45	35	25	45	70	220
3	Flexibility	35	36	28	35	68	202
4	Integration	32	44	30	32	69	207
5	Keeping aims and objectives in view	36	25	25	36	61	183

6	Utility	42	28	28	42	45	185
7	Development of democratic values	52	30	30	52	58	222
8	Principle of creativity	35	25	43	35	56	194
9	Being tentative rather than final	30	28	46	28	57	189
10	Conservation of culture	30	30	40	40	52	192
11	Forward looking	50	44	45	45	40	224
12	Studying current affairs	45	25	35	35	60	200
13	Developing ideals and loyalties	40	28	32	32	39	171
14	Based on actual experience of the student	10	30	36	36	48	160
15	Sensitivity to changing needs and values	11	25	42	40	56	174
16	Achievement of wholesome behavior pattern	45	28	52	45	21	191
17	Principle of readiness	50	30	35	35	65	215

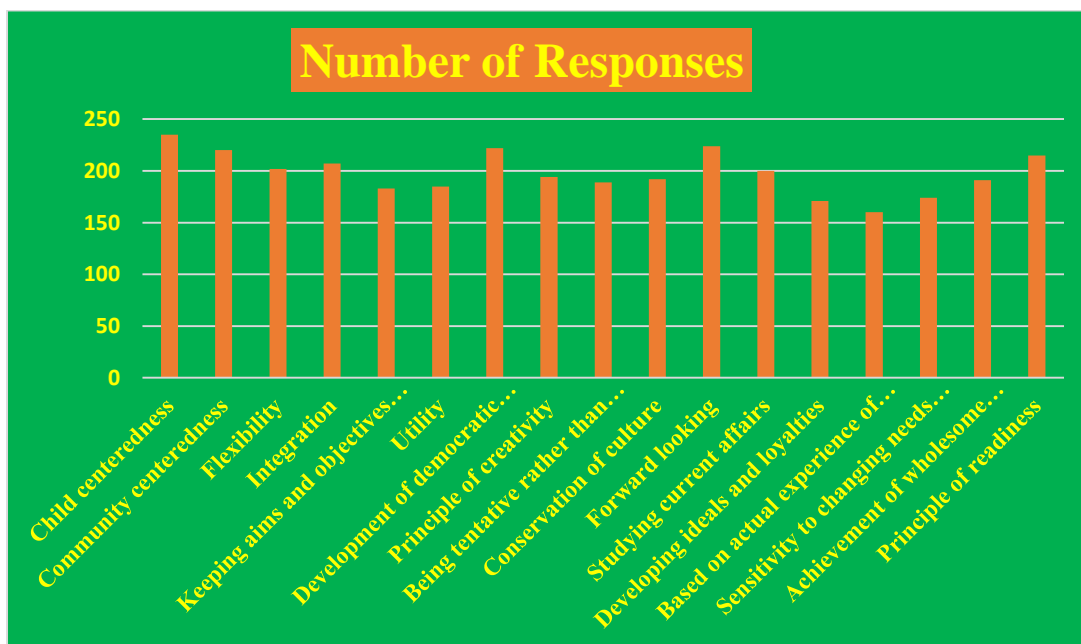


Figure 6: Shows Components of Curriculum Construction/ Curriculum preparation

Interpretation:

The knowledge of principles of Curriculum Construction/ Curriculum preparation in social studies at elementary level is very important. These principles are Child centeredness, Community centeredness, Flexibility, Integration, Keeping aims and objectives in view, Utility, Development of democratic values, Principle of creativity, Being tentative rather than final, Conservation of culture, Forward looking, Studying current affairs, Developing ideals and loyalties, Based on actual experience of the student, Sensitivity to changing needs and values, Achievement of wholesome behavior pattern, and Principle of readiness. Out of 276 teachers only 235 are confident for the first component. 220 teachers are confident for the second component. 202 teachers are confident for the third component. 207 teachers are confident for the fourth component. 183 teachers are confident for the fifth component. 185 teachers are confident for the sixth component. 222 teachers are confident for the seventh component. 194 teachers are confident for the eighth component. 189 teachers are confident for the ninth component. 192 teachers are confident for the tenth component. 224 teachers are confident for the eleventh component. 200 teachers are confident for the twelfth component. 171 teachers are confident for the thirteenth component. 160 teachers are confident for the fourteenth component. 174 teachers are confident for the fifteenth component. 191 teachers are confident for the sixteenth component and 215 teachers are confident for the seventeenth component. The bar chart shows at a glance that hundred percent teachers are not confident in all the components neither in any single component all the teachers claim. It was also observed that many teachers did not understand the questions properly.

Q.3. Which Self-Instructional Modules do you use while teaching Social Studies?**Table 15. Components of Self-Instructional Modules of teaching Social Studies**

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahend ergarh	Total
1	Individualized Instructional Modules						
	(i) Programmed Instruction	45	45	35	36	28	144
	(ii) Computer assisted instruction	32	35	32	44	30	138
	(iii) Project	25	40	36	25	25	111
	(iv) Assignment etc.	51	36	42	28	28	149
2	Group-Directed Instruction Modules						
	(i) Discussion	50	45	35	25	43	103
	(ii) Debate	20	32	30	28	46	104
	(iii) Symposium	10	23	30	30	40	100
	(iv) Panel discussion	10	15	50	44	45	139
	(v) Brain Storming	45	45	45	25	35	105

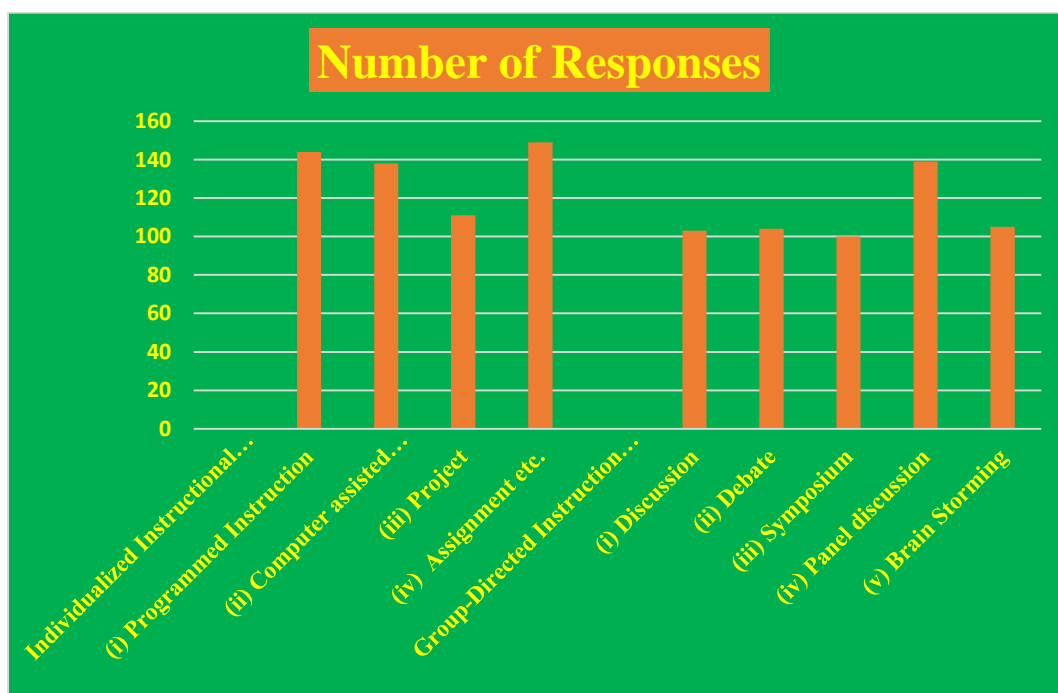


Figure 7: Shows Components of Self-Instructional Modules of teaching Social Studies

Interpretation:

There are various types of Self Instructional Material in Social Studies like Individualized Instructional Modules (Programmed Instruction, Computer assisted instruction, Project, Assignment etc.) and Group-Directed Instruction Modules (Discussion, Debate, Symposium, Panel discussion, Brain Storming). The responses of the teachers for component first i.e. Individualized Instructional Modules(i) Programmed Instruction is 144, (ii) Computer assisted instruction is 138, (iii) Project is 111 and (iv) Assignment is 149. The responses of the teachers for component second i.e. Group-Directed Instruction Modules(i) Discussion is 103, (ii) Debate is 104, (iii) Symposium is 100, (iv) Panel discussion is 139, and (v) Brain Storming is 105

Q.4 What is the need and importance of Self Instructional Material in Social Studies?

Table 16. Components of Self Instructional Material in Social Studies

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block M/GRH.	Total
1	Clarity of the subject	32	30	35	41	60	198
2	To make the subject interesting	41	38	41	38	55	213
3	Based on maxim of teaching	25	45	29	48	25	172
4	Saving of time and energy	28	42	48	50	65	233
5	Development of scientific attitude	33	35	45	46	62	221
6	Provide motivation	45	36	50	35	70	236
7	Effective for slow learners	44	44	42	32	76	238
8	Develop friendly relation between pupils and teacher	35	25	43	43	55	201
9	Supply new experiences and new energy	29	28	46	28	58	189

10	Helps in the association of ideas	30	30	35	35	55	185
11	Provision of sensory experience	10	12	25	18	29	94
12	Substitutes for direct experiences	45	38	30	33	62	208
13	Help making learning Permanent	48	28	32	42	28	178
14	Meet the requirement of individual differences	10	40	30	12	33	125
15	Provide opportunities for activities	11	34	40	20	10	115
16	Help in increasing the vocabulary of the students	5	38	25	10	12	90

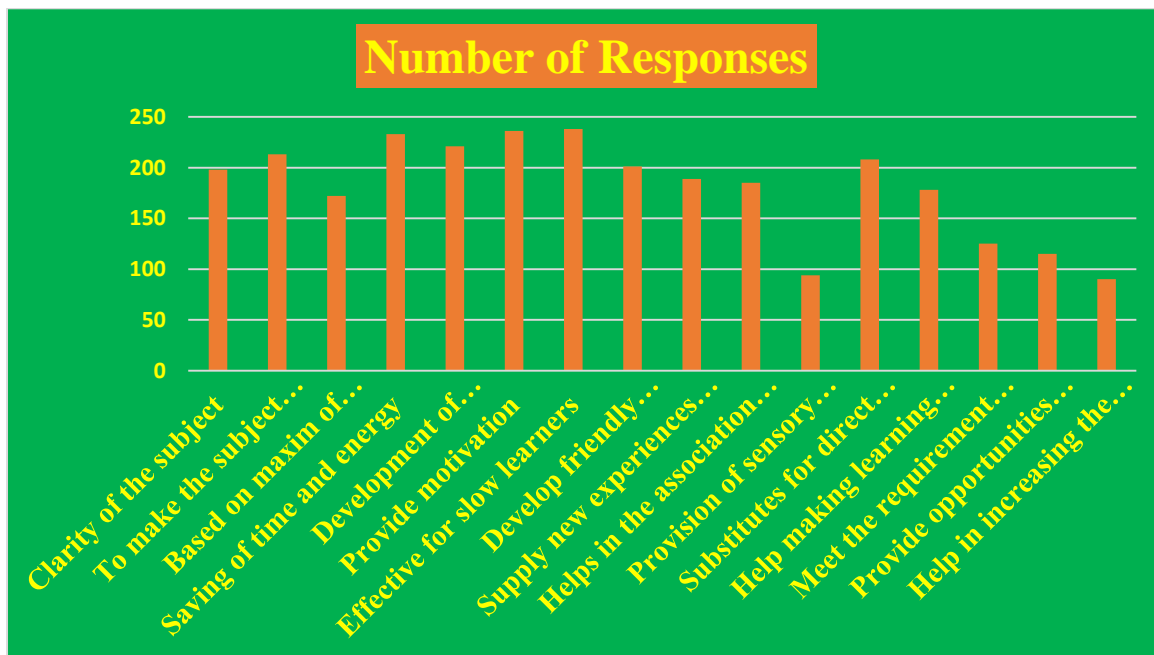


Figure 8: Shows Components of Self Instructional Material in Social Studies

Interpretation:

The use of Self Instructional Material in Social Studies is essential. It helps in clarity of the subject, it make the subject interesting, it is based on maxim of teaching, it saves time and energy, and it develops the scientific attitude. Self-Instructional Material in Social Studies provide motivation, it is effective for slow learners, and develop friendly

relation between pupils and teacher. Self-Instructional Material in Social Studies supply new experiences and new energy which helps in the association of ideas and provision of sensory experience. Self-Instructional Material in Social Studies substitutes for direct experiences, making learning Permanent and meet the requirement of individual differences. It also provides opportunities for activities and help in increasing the vocabulary of the students. Out of 276 teachers only 198 are confident for the first component. 213 teachers are confident for the second component. 172 teachers are confident for the third component. 233 teachers are confident for the fourth component. 221 teachers are confident for the fifth component. 236 teachers are confident for the sixth component. 238 teachers are confident for the seventh component. 201 teachers are confident for the eighth component. 189 teachers are confident for the ninth component. 185 teachers are confident for the tenth component. 94 teachers are confident for the eleventh component. 208 teachers are confident for the twelfth component. 178 teachers are confident for the thirteenth component. 125 teachers are confident for the fourteenth component. 115 teachers are confident for the fifteenth component and 90 teachers are confident for the sixteenth component. The bar chart shows at a glance that hundred percent teachers are not confident in all the components neither in any single component all the teachers claim. It was also observed that many teachers did not understand the questions properly.

Q.5 What are the methods of teaching social studies?

Table 17. Methods of teaching social studies

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	Total
1	Story telling method	42	30	35	42	76	225

2	Lecture method	43	38	42	43	55	221
3	Project method	46	45	43	46	58	238
4	Unit method	35	42	46	35	55	213
5	Problem solving method	25	43	35	42	29	174
6	Discussion method	42	46	25	43	62	218
7	Socialized recitation method	43	35	42	46	76	242
8	Supervised study method	46	25	43	35	55	204
9	Inductive and Deductive method	35	42	46	25	58	206
10	Text book method	25	43	35	42	55	200
11	Laboratory method	1	4	2	0	2	9

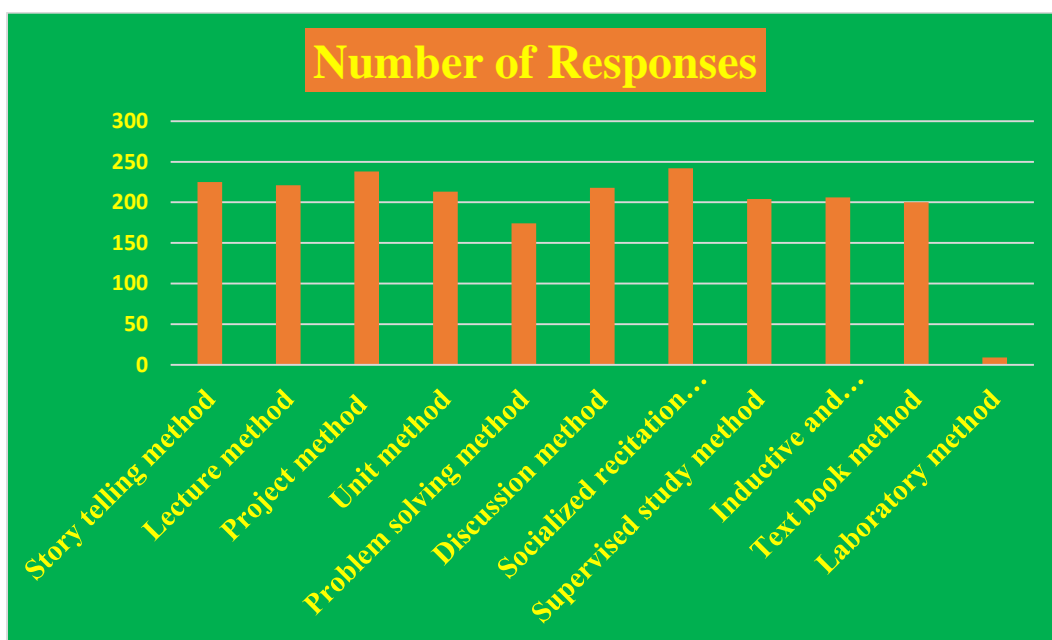


Figure 9: Shows Methods of teaching social studies

Interpretation:

There are many method in teaching social studies. These method are used according to the need of the content. Some method are used in every type of content teaching at elementary level. These method are like Lecture method, Project method, Unit method,

Problem solving method, and Discussion method, socialized recitation method, and supervised study method, Inductive and Deductive method, Text book method and many more. There is one Laboratory method which is mostly not required at elementary level. Now a day's laboratory method can be used in the form of fields visit to the historical places. Out of 276 teachers only 225 are confident for the first component. 221 teachers are confident for the second component. 238 teachers are confident for the third component. 213 teachers are confident for the fourth component. 174 teachers are confident for the fifth component. 218 teachers are confident for the sixth component. 242 teachers are confident for the seventh component. 204 teachers are confident for the eighth component. 206 teachers are confident for the ninth component. 200 teachers are confident for the tenth component. 9 teachers are confident for the eleventh component.

Q.6 What is the skills in teaching social studies?

Table 18. Skills in teaching social studies

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	Total
1	Skill of Introduction	41	41	43	43	76	244
2	Skill of Questioning	38	38	38	38	55	207
3	Skill of Explaining	48	48	48	48	58	250
4	Skill of Illustration with examples	50	50	38	50	55	243
5	Skill of Stimulus variation	46	41	48	46	29	210
6	Skill of Map reading	35	38	50	35	62	220
7	Skill of Reinforcement	32	48	46	32	76	234
8	Skill of Class room management	43	50	35	43	55	226
9	Skill of Narration	41	46	32	28	58	205
10	Skill of Presentation	38	35	43	35	76	227

11	Skill of using black board	48	32	41	18	55	194
12	Skill of increasing pupil's participation	50	43	38	33	58	222
13	Skill of Team teaching	46	41	48	42	55	232
14	Skill of role playing	35	38	50	12	29	164
15	Skill of silence and non-verbal clues	32	48	46	20	62	208

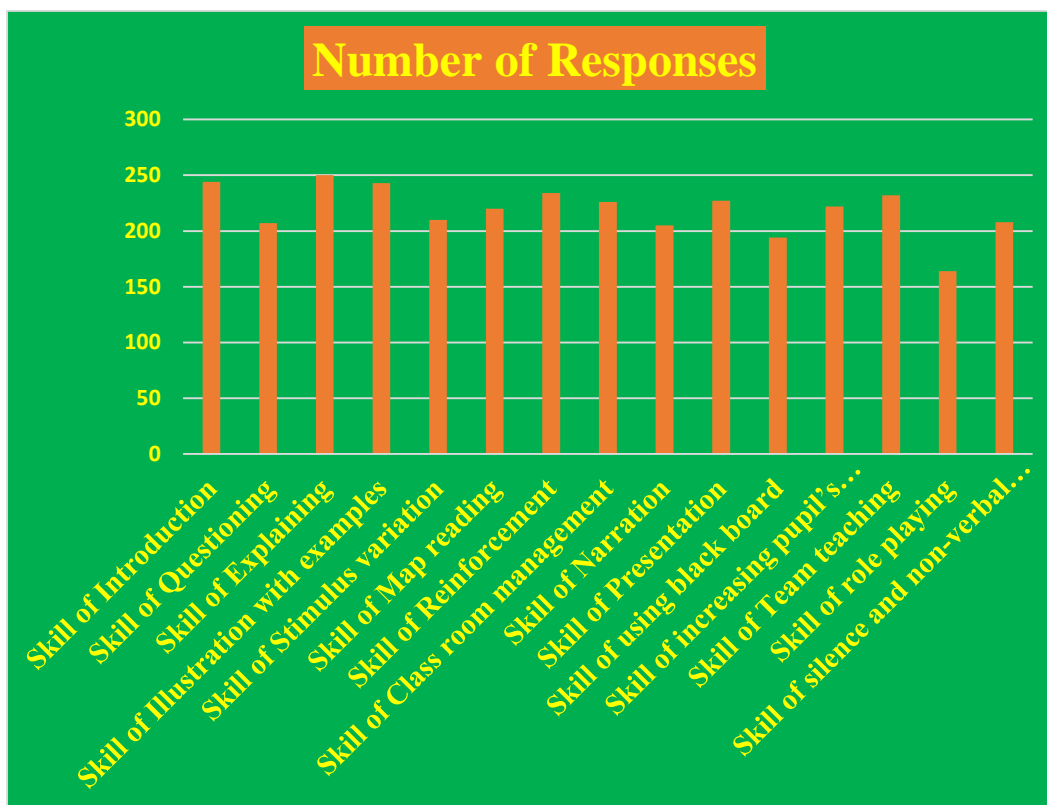


Figure 10: Shows Skills in teaching social studies

Interpretation:

There are many skills in teaching social studies. These skills are used according to the need of the content. Out of 276 teachers only 244 are confident for the first component. 207 teachers are confident for the second component. 250 teachers are confident for the third component. 243 teachers are confident for the fourth component. 210 teachers are confident for the fifth component. 220 teachers are confident for the sixth component. 234 teachers are confident for the seventh

component.226 teachers are confident for the eighth component.205 teachers are confident for the ninth component.227 teachers are confident for the tenth component.194 teachers are confident for the eleventh component.222 teachers are confident for the twelfth component.232 teachers are confident for the thirteenth component.164 teachers are confident for the fourteenth component.208 teachers are confident for the fifteenth component. Some skills are used in every type of content teaching at elementary level. These skills are like skill of Introduction, skill of Questioning, skill of Explaining, skill of Illustration with examples, skill of Stimulus variation, skill of Map reading, skill of Reinforcement, skill of Class room management, skill of Narration, skill of Presentation, skill of using black board, skill of increasing pupil's participation, skill of Team teaching, skill of role playing, skill of silence and non-verbal clues and many more. The above table shows the number of responses block wise. At many stage the teachers were silent and they do not respond anything.

Q.7 What procedure do you adopt in planning the lesson?

Table 19. Procedure adopting in planning the lesson

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	Total
1	Aims and objectives						
	• General objectives	45	45	50	45	51	96
	• Subject objectives	32	42	51	42	35	67
	• Unit objectives	25	10	10	45	32	57
	• The specific objectives of the daily lesson	51	05	05	42	51	102
2	Selecting and arranging the subject matter	35	45	50	48	51	86
3	Determining the methods of teaching	32	42	51	45	35	67

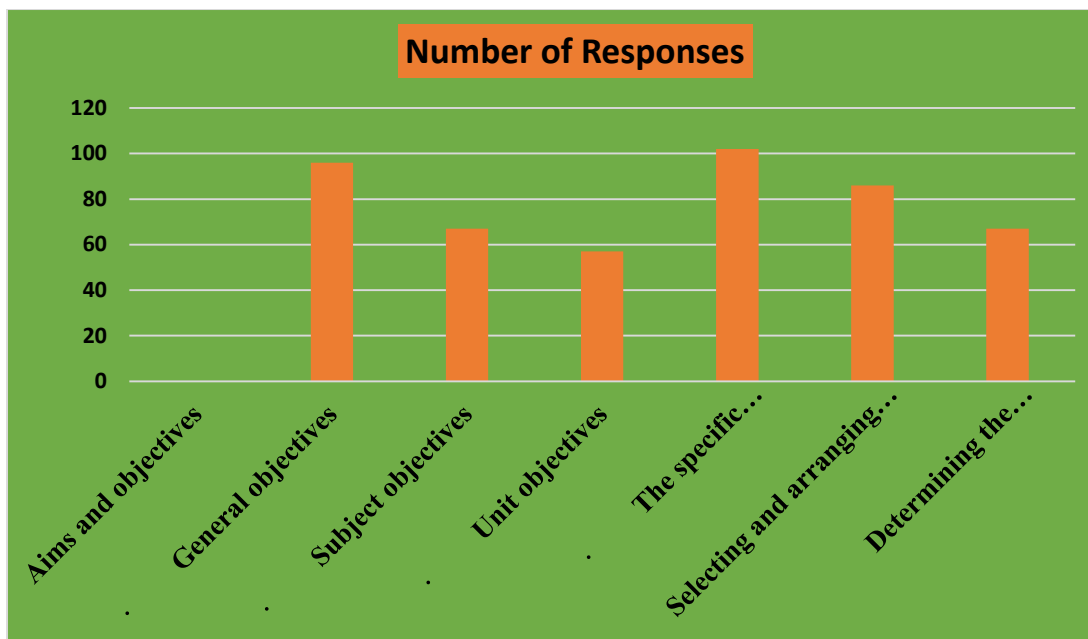


Figure 11: Shows Procedure adopting in planning the lesson

Interpretation:

The procedure teachers adopt in planning the lesson is different in different schools. Most of the teachers responded that they frame aims and objectives during the preparation of the curriculum. They also said that the curriculum is designed by experts of different places. Teachers adopt the same aims and objectives. They design general objectives, subject objectives and unit objectives. The table data shows that very few teachers prepare unite wise objectives. The specific objectives of the daily lessonis prepared with selecting and arranging the subject matter. Very few moments are there when teacher determining the methods of teaching in the class. Teacher just enter into the class and start teaching. Out of 276 teachers only 96 (General objectives), 67 (Subject objectives), 57 (Unit objectives), 102 (The specific objectives of the daily lesson) are confident for the first component. 86 teachers are confident for the second component (Selecting and arranging the subject matter). 67 teachers are confident for the third component (Determining the methods of teaching).

Q.8 What do you think about the importance of Evaluation?

Table 20. Components of Evaluation

	Components	Block Ateli	Block Narnaul	Block Nangal Chaudhary	Block Kanina	Block Mahendergarh	Total
1	Knowledge about the progress of the student	41	30	32	41	68	212
2	Helps in clarifying objectives	38	38	41	38	55	210
3	Helps in classification of the student	48	45	25	48	25	191
4	Basis of admission	50	42	28	50	65	235
5	Basis of planning of education	46	35	33	46	62	222
6	Basis of guidance	35	36	45	35	70	221
7	Helps in testing the efficiency of the teacher	32	44	44	32	76	228
8	Promotion of better learning	43	25	35	43	55	201
9	Helps in bringing change in curriculum	28	28	29	28	58	171
10	Help in awarding scholarship	35	30	30	35	55	185

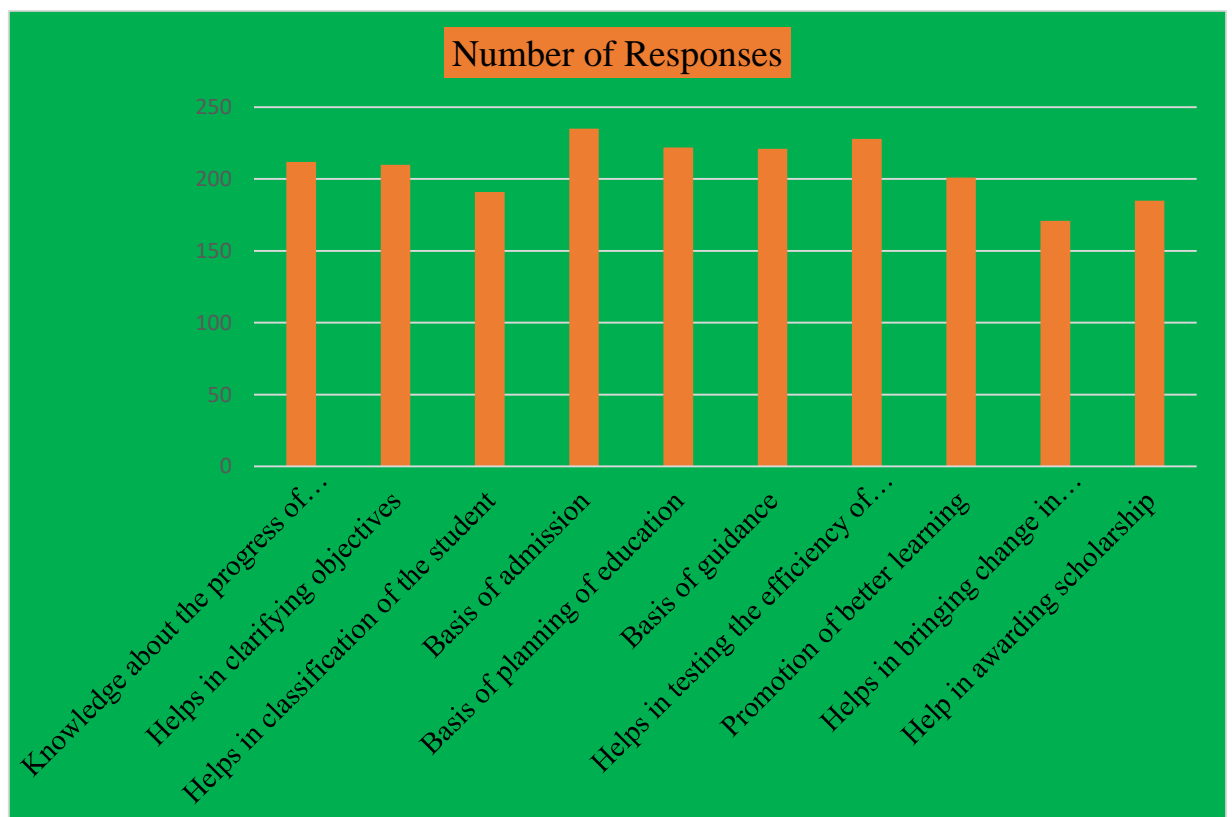


Figure 12: Shows the Components of Evaluation

Interpretation:

The evaluation has its own importance. Evaluation includes measurement. In this questioner there are ten components. The responses for the first component “*Knowledge about the progress of the student*” the block Ateli only 41 teachers had given the positive response and confirm strongly that through evaluation students’ progress can be judged. In Narnaul block thirty teachers responded in the favour, In Nangal Chaudhary block thirty two teachers were responded, In Kanina Block forty one teachers responded and confirm that evaluation is the only method for knowing the knowledge of progress. Sixty Eight teachers of Mahendergarh block had responded in the favour. Rest of the teachers did not reply for this component. They were silent. In the same way Evaluation *helps in clarifying the objectives* of teaching the subject. And for this from Block Ateli Thirty eight, Block Narnaul thirty, Block Nangal Chaudhary forty one, Block Kanina forty eight and Block Mahendergarh fifty five teachers were responded in the favour. Rest of the teachers were silent for this component. Out of 276 teachers only 212 are confident for the first component. 210 teachers are confident for the second component. 191 teachers are confident for the third component. 235 teachers are confident for the fourth component. 222 teachers are confident for the fifth component. 221 teachers are confident for the sixth component. 228 teachers are confident for the seventh component. 201 teachers are confident for the eighth component. 171 teachers are confident for the ninth component. 185 teachers are confident for the tenth component. The table shows that the responses of the teachers were very particular and some where they were silent. In the same way a group of teachers claims that evaluation helps or the basis of admission, basis of planning of education, basis of guidance, helps in testing the efficiency of the teacher, promotion

of better learning, helps in bringing change in curriculum and help in awarding scholarship.

Conclusion

The analysis was based on the components which are very much relevant for a teacher to adopt during the class. Most of the teachers stated that they have adopted most of the items asked by the researcher. The challenges were that every time it becomes difficult to adopt all the components. The related components of transacting knowledge in the classroom are: Knowledge Structure, Development of Competence in Problem Solving, Relevant Understanding, Development of Desirable Attitudes, Provides Training in Co-Operation, Development of Character, Development of Thinking and Reasoning Power, Development of Global Understanding, Development of Socio cultural Understanding, Development of Habits of Adjustability and Flexibility, Development of Skill in Responsible Group Participation, Development of Healthy Teacher Pupil Relationship, Development of Skill in Enquiry and Decision Making, Development of Skills of Tolerance and Openness, Development of Skills in Studying and Learning Provides Basis for Specialization, Child centeredness, Community centeredness, Flexibility, Integration, Keeping aims and objectives in view, Utility, Development of democratic values, Principle of creativity, Being tentative rather than final Conservation of culture, Forward looking, Studying current affairs, Developing ideals and loyalties, Based on actual experience of the student, Sensitivity to changing needs and values, Achievement of wholesome behavior pattern, Principle of readiness, Individualized Instructional Modules (Programmed Instruction, Computer assisted instruction, Project, Assignment etc.) and Group-Directed Instruction Modules (Discussion, Debate, Symposium, Panel discussion, Brain Storming). Some more components which are directly and indirectly used are Clarity of the subject, To make the subject interesting, Based on maxim of teaching, Saving of time and energy, Development of scientific attitude, Provide motivation, Effective for slow learners,

Develop friendly relation between pupils and teacher, Supply new experiences and new energy, Helps in the association of ideas, Provision of sensory experience, Substitutes for direct experiences, Help making learning Permanent, Meet the requirement of individual differences, Provide opportunities for activities and Help in increasing the vocabulary of the students, Storytelling method, Lecture method, Project method, Unit method, Problem solving method, Discussion method, Socialized recitation method, supervised study method, Inductive and Deductive method, Text book method, and Laboratory method. The skills which a teacher has to essentially used are Skill of Introduction, Questioning Skill, Explaining Skill, Illustration Skill with examples, Stimulus variationSkill, Map reading Skill, Reinforcement Skill, Class room management Skill, Narration Skill, Presentation Skill, Skill of using black board, Skill of increasing pupil's participation, Skill of Team teaching, Skill of role playing and Skill of silence and non-verbal clues. It was observed that many teachers do not use different skills while teaching. They used only the traditional skills for teaching. Some teachers are very much clear about the aims and objectives (General objectives, Subject objectives, Unit objectives and the specific objectives of the daily lesson), Selecting and arranging the subject matter and determining the methods of teaching. But some teachers take it very lightly. The last part of interaction is totally based on the holistic approach like knowledge about the progress of the student, helps in clarifying objectives, helps in classification of the student, basis of admission, basis of planning of education, basis of guidance, helps in testing the efficiency of the teacher, promotion of better learning, helps in bringing change in curriculum, and help in awarding scholarship. Overall it can be said that the sound pedagogical content knowledge.