4. Research Questions

1) Are there factors which can be categorized as enabling and disabling as far as parent teacher communication is concerned?
2) Is there significant difference in magnitude of response towards enabling and disabling factors?
3) Is there is any difference in magnitude of response of teachers towards enabling factors across gender variation?
4) Is there is any difference in magnitude of response of teachers towards disabling factors across gender variation?

4.1 Sample for the Study

A snow ball sample of fifty teachers and equal number of parents constituted the sample.

4.2 Development of Parent- Teacher Communication Measure

a) Collection of Items
The measureis just collection of neutral items which could be enabling as well as disabling ones for parent teacher communication. The collection of these itemsis done from various sources like journals, internet open sources, schools publications, parents and teachers etc.

b) Selection of Items
Items were selected on the basis of experts' opinion, who evaluated the items for suitability for purpose, grammatical correctness, ambiguity and possibility of extracting the meaningful data for worthwhile treatment.

c) Scoring of the items
The measures o prepared required responding on six point's unidirectional approval, scored in terms of o to 5 for increasing weightage. As the measure contains only neural item, these could be responded both positive (enabling) as well as negative (disabling) factors. Scoring is same as the response itself i.e. a '0' response would mean '0' score, '1' implies one and so on. This could be understood as '5' means 'very strongly agree', '4' means 'strongly agree', '3' means 'agree', '2' means 'agree to some extent', '1' means ,little agreement' and '0' means 'least agreement'.

d) Cluster Analysis
Cluster analysis is performed for discovering the underlying factors of the proposed enabling and disabling items.

e) Preparation of inter-item Correlation Matrix
Items of the measure are taken as variables and 40X40 inter-item correlation matrix generated from the reported responses on these items.

f) Preparation of inter-item Dissimilarity Matrix
As we know cluster analysis is based on the distance analysis rather than relatedness. The values 1-r represents the dissimilarity, opposed to relatedness. By doing this we get 40x40 dissimilarity matrix having corresponding 1-r values.

g) **Preparation of clusters**
Clusters are made by calculating Euclidian distance among the member items in the dissimilarity matrix. The formula used for calculating distance is as follows.

$$D(i, j) = \sqrt{A^2 + B^2} = \sqrt{(X_{1i} - X_{1j})^2 (X_{2i} - X_{2j})^2}$$

An observation i is declared to be closer (more similar) to j than to observation k if D(I, j) < D(I, k)
Now after doing this step we get matrix of distances among items in place of dissimilarity measures. The process is started from the ab-initio stage where we assume all the items constitute independent cluster of one item each. Then each successive step combines the nearest neighbors using single linkage method to form bigger groups in stages. In this way groups of items are discovered. Final clusters so formed for teachers and parents groups are shown in proceeding tables.

4.3 Enabling Factors Clusters as perceived by Teachers

Table 1: Final Seven Clusters Discovered with Euclidian Distance

clusters		C1	C2	C3	C4	C5	C6	C7
		1,5,6,10,18 31,34,38	2,14,24,25, 29,30,36,40	3,8,26, 28,39	4,11,20, 22,35	7,15,17,27, 32,33	9,12, 19, 23,	13,16 21,37
C1	1,5,6,10, 31,34,38	0.0000						
C2	2,14,24,25, 29,30,36,40	1.3575	0.0000					
C3	3,8,26, 28,39	0.9610	0.9251	0.0000				
C4	4,11,20, 22,35	0.2601	0.6571	0.5280	0.0000			
C5	7,15,27, 32,33	0.2548	0.2626	0.3040	0.2047	0.0000		
C6	9,12, 19, 23,	0.2986	0.2806	0.1754	0.2945	0.1165	0.0000	
C7	13,16 21,37	0.4146	0.2149	0.1793	0.2346	0.1483	0.6692	0.0000

4.4 Dubbing of Clusters, validity and Reliability

Construct validity is established by the fact that the concept is composed of seven factors as found in cluster analysis. Reliability of constituent measures has been presented in table 2.

Table 2: Reliability of the Measure

Sr. No.	Sub Measures	*Reliability of the Measure*	
		Half Length (r)	*Full Length (R)*
1.	"Pride and Prejudice"	.68	.81
2.	"Age and Functioning Style"	.71	.83
3.	"Priority and Procedures"	.82	.90
4.	"Transparent and interactive"	.72	.82
5.	"Psychological and Administrative"	.78	.88
6.	"Parents and School Initiatives"	.74	.85
7.	"Sociability and Accountability"	.69	.82

The obtained values for reliability are gratifying hence assumed to be a genuine measure. A summary of picture can be viewed by taking two priority items from clusters containing four or greater than four items and one item from cluster with items less than four. Collection of ten items so obtained is shown in the table 3.

Table 3: Ten priority enabling items as perceived by Teachers

Sr. No.	*Item No.*	*Item*
1	1	Parent's ego
2	2	Parents' age
3	4	Child' sociability
4	5	Parents' sincerity
5	7	parents' attitudes
6	9	Parents' sociability
7	11	Child's age
8	13	Child's sociability
9	14	Child's behaviour
10	15	Child's personality

4.5 Disabling Factors Clusters as perceived by Teachers

Table 4: Final Seven Clusters Discovered with Euclidian Distance

clusters		**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
		1,7,13,18, 26,38,40	**2,6,16,20 28,29,34,39**	**3,8,10,12 15,33,35**	**4,9,14,21 27,31,36**	**5,17,23, 32,37**	**11,19,22 24,25,30**
C1	**1,7,13,18, 26,38,40**	0.0000					
C2	**2,6,16,20 28,29,34,39**	0.9049	0.0000				
C3	**3,8,10,12 15,33,35**	0.6508	0.6156	0.0000			
C4	**4,9,14,21 27,31,36**	0.3267	0.4379	0.6663	0.0000		
C5	**5,17,23, 32,37**	0.3526	0.2868	0.5190	0.8843	0.0000	
C6	**11,19,22 24,25,30**	0.4728	0.3491	0.4041	0.6176	0.3302	0.0000

4.6 Dubbing of Clusters, validity and Reliability

Construct validity is established by the fact that the concept is composed of six factors as discovered in cluster analysis. Reliability of constituent measures as well as total measure has been presented in table 5.

Table 5: Reliability of the Measure

Sr. No.	*Sub Measures*	*Reliability of the Measure*	
		Half Length (r)	*Full Length (R)*
1.	"Pride and Prejudice"	.63	.77
2.	"Age and Functioning Style"	.73	.84
3.	Priority and Procedures"	.69	.82
4.	"Transparent and interactive"	.87	.93
5.	"Psychological and Administrative"	.68	.81
6.	"Parents and School Initiatives"	.71	.83

The obtained values for reliability are gratifying hence assumed to be a genuine measure. A summary of picture can be viewed by taking two priority items from clusters containing four or greater than four items and one item from cluster with items less than four. Collection of ten items so obtained is shown in the table 6.

Table 6: Twelve priority Disablingitems

Sr. No.	Item No.	Item
1	01	Parent's ego
2	02	Parents' age
3	03	Parents' priority
4	04	Child' sociability
5	05	Parents' sincerity
6	08	Parents' education
7	11	Child's age
8	20	Transparency of school
9	24	Principal's functioning style
10	27	Principal's style of functioning
11	37	Teacher's accountability
12	40	Teacher's communication skills

There are some items which have been found really neutral could serve as enabling and disabling items for parent teacher communication. These items are presented in table 7.

Table 7: Common Enabling and DisablingItems

Sr. No.	Item No.	Item
1	1	Parent's ego
2	2	Parents' age
3	5	Parents' sincerity
4	11	Child's age

There are items which are found to be enabling but not disabling items, on the other hand there are some items which are disabling items but not enabling ones for parent teacher communication, as perceived by teachers.

Table: 8: Enabling but not DisablingItems Vs Disabling but not EnablingItems for Teachers

Enabling but not DisablingItems			Disabling but not EnablingItems		
Sr. No.	Item No.	Item	Sr. No.	Item No.	Item
1	7	parents' attitudes	1	3	Parents' priority
2	9	Parents' sociability	2	8	Parents' education
4	13	Child's sociability	3	20	Transparency of school
5	14	Child's behaviour	4	24	Principal's functioning style
6	15	Child's personality	5	27	Principal's style of functioning
			6	37	Teacher's accountability
			7	40	Teacher's communication skills

Finally there are items which were rejected by teachers to be influencing in any way as far as parent teacher communication is concerned.

Table: 9: Items do not play role in Parent Teacher Communication

Sr. No.	*Item No.*	*Item*
1	6	Parents' prejudice
2	12	Child's attitudes
3	17	Child's economic status
4	18	child's class performance
5	19	Child's exceptional Characteristics
6	21	Accountability of school
7	22	Jargon used in feedback
8	23	Encouragement by school
9	25	Medium of Communication
10	28	Honesty of purpose by School
11	29	Technology used for feedback
12	30	Misrepresentation of facts by school
13	31	Teacher's age
14	32	Teacher's ethics
15	33	Teacher's training
16	35	Teacher's freedom
17	36	Teacher's workload
18	39	Teacher's concern for learner

5. Answering the Research Questions

Are there factors which can be categorized as enabling and disabling as far as parent teacher communication is concerned?

There is clear preference for factors which could be categorized as enabling and disabling in nature. The data is obtained such that respondent could categorize a factor in enabling, disabling or even in both the categories. Thus it is easy to study the preference of teachers in this respect, as described in table 13.

Table 13: Factors classification for Teachers (Total Factors)

	Common Factors	Enabling	Disabling	None of the Category	Unaccountable
Number	5	6	8	18	3
%	12.50	15.00	20.00	45.00	7.50

Majority of factors are lost in the process of selection those could not be categorized in any of the category. But still we have 6(15%) factors in enabling category, whereas 8(20%) in disabling category. Teachers believe factors: Parent age, Parent ego, parents' sincerity and child age are important factors but can work as enabling of disabling depending on context and time. Factors: Parent attitude, Parents sociability, Child sociability, Child behaviour and Child personality are enabling factors for parent teacher communication. The real thing to point out is that teachers want to point out parents and child for maintaining smooth channel of communication between parents and teacher and finds no role for her/him. Factors: Parents' priority, Parents education, Transparency of school, Principal's functioning, Teacher's accountability and communication skills as disabling factors. Again teacher holds herself/himself least responsible for disabling the parent teacher communication.

Is there significant difference in magnitude of response towards enabling and disabling factors?

The question is answered by comparing the means using t-test across the variables. The raw scores are collected for treatment for only selected enabling and disabling factors obtained in the cluster analysis. Summary of calculations has been shown in the table 14

Table 14: Summary of t-test applied across Variables Enabling and Disabling Factors for Teachers Group

Group	*Mean*	*S D*	*S* E_d	$(M_1-M_2)/S\ E_d$	*Level of Sig.*
Enabling	3.8612	0.3525	0.1279	25.5441	Sig. at 0.01 Level
Disabling	1.9750	0.3427			

The observed t-ratio has been found to be much greater than the table values, hence found to be significant at 0.01 level. Thus we confirm the fact there exist a real difference between intensity of response towards enabling and disabling factors as far as teachers are concerned. Teachers are more concerned about enabling factors than disabling factors. They want to look on positive side of the issue and don't think communication can be impeded by external factors. This is pleasing result as teachers are service providers, and they should try to facilitate the parent teacher communication to the utmost.

Is there is any difference in magnitude of response of teachers towards enabling factors across gender variation?

The question is answered by comparing the means using t-test across gender variation. The raw scores are collected for treatment for only selected enabling factors for both the groups obtained in the cluster analysis. Summary of calculations has been shown in the table 15

Table 15: Summary of t-test applied across Gender Variable for teachers in respect of Enabling Factors

Group	Mean	S D	S E_d	$(M_1-M_2)/S\ E_d$	Level of Sig.
Male	3.4263	0.2369	0.0698	0.7439	Not Sig.
Female	3.4782	0.2564			

The observed t-ratio has been found to be far lesser than table values, hence found to be insignificant. Thus we confirm the fact that the difference obtained is not a real one and should be attributed to a matter of chance. Male and female teachers have almost equal affinity to point out enabling factors for parent teacher communication. It is expected result teachers do not categorically believe that they are male or female teachers, rather they are just teachers of their students.

Is there is any difference in magnitude of response of teachers towards disabling factors across gender variation?

The question is answered by comparing the means using t-test across both the groups' male teaches and Female teachers. The raw scores are collected for treatment for only selected disabling factors for both the groups obtained in the cluster analysis. Summary of calculations has been shown in the table 16.

Table 16: Summary of t-test applied across Gender Variable for teachers in respect of Disabling Factors

Group	Mean	S D	S E_d	$(M_1-M_2)/S\ E_d$	Level of Sig.
Male	0.6462	0.0922	0.0258	1.3120	Sig. at 0.01 Level
Female	0.6124	0.0897			

The observed t-ratio has been found to be far lesser than table values, hence found to be insignificant. Thus we confirm the fact that the difference obtained is not a real one and should be attributed to a matter of chance. Male and female teachers have almost equal affinity to point out disabling factors for parent teacher communication. It is expected result as teachers are just teachers are just teachers irrespective of their gender orientation. Their being male or female teacher is not expected to have any bearing on their perceptions about disabling factors for parent teacher communication.

6. Educational Significance

As explained in the introduction a smooth communication between parents and teacher is mutually beneficial to both teachers as well as parents and same can be said about school and society in bigger vision. The identification of enabling and disabling factors can guide the policy framing of the school to improving communication between teacher and parents' vis-e-vis school and society. Also good relation with parents helps in effective adjustment of a teacher. Parents on the other hands feel assured that their child is in safe hands and with an able guide who is capable of showing him/her right path.

7. Threads for Further Research

Similar attempt could be repeated for parents and then a comparison of perception is possible. It will give a chance to understand the difference of emphasis if any between teachers and parents. There can be another angle to the subject that is studying perceptions of pupils, which may reveal many things yet uncovered, after all communication is being done on his/her behalf. Factors for communication may also be studied for different stages of education.

References

[1] Aronson, M. M. (1995). *Building Communication Partnerships with Parents.* Westminster, CA: Teacher Created Materials, Inc.
[2] Berger, E. H. (1991). *Parents as Partners in Education: The School and Home working together.* New York: Macmillan.
[3] Burke, R. (1999). Diverse Family Structures: Implications for P-3 Teachers. *Journal of Early Childhood Teacher Education, 20*(3), 245-251.
[4] Caspe, M. S. (2003). How Teachers come to understand Families. *The School Community Journal,13*(1), 115-131.
[5] Chambers, L. (1998). How Customer-friendly is Your School? *Educational Leadership, 56*(2),33-35.
[6] Clemens-Brower, T. J. (1997). Recruiting Parents and the Community. *Educational Leadership,54(5),* 58-60.
[7] Connell, J.P., & Wellborn, J.G. (1991). Competence, Autonomy, and Relatedness: A motivational Analysis of Self-system processes. In Gunnar, M. R., &Sroufe, L.A. (Eds.), *Self Processes and Development* (Vol. 23, pp. 43–77) Hillsdale, N.J.: L. Erlbaum Associates.
[8] Connell, J., Spencer, M., &Aber, J. (1994). Educational Risk and Resilience in African-American youth: Context, Self, Action, and Outcomes in School. *Child Development, 65(2),* 493-506.
[9] Davern, L. (2004). School-to-Home Notebooks: What Parents have to say.*Council for Exceptional Children, 36*(5), 22-27.
[10] Epstein, J. (1995). School/Family/Community Partnerships: Caring for the Children We Share.*Phi Delta Kappan, 72*(5), 701-712.
[11] Galinsky, E. (1990). Why are Some Parent Teacher Partnerships clouded with Difficulties? *Young Children,* 45(5), 38-39. (ERIC Journal No. EJ415403)
[12] Getzels, J. W. (1974). Socialization and Education: A note on Discontinuities. *Teachers College Record, 76*(2), 218-225.
[13] Gustafson, C. (1998). Phone Home. *Educational Leadership, 56*(2), 31-32.
[14] Hradecky, L. (1994, September/October). Vice-principals' guide to Effective Communication. *The Canadian School Executive,* 9-13.
[15] Henry, M. E. (1996). *Parent-school Collaboration. Feminist Organizational Structures and School Leadership.* Albany: State University of New York. (ERIC Document No.ED395388)
[16] Herrold, K., O'Donnell, K., & National Center for Education Statistics.(2008). Parent and Family involvement in Education, 2006-07 School Year, from the National Household Education Surveys Program of 2007.First Look. NCES 2008-050. National Center for Education Statistics.
[17] Hymes, J. L. (1974). *Effective Home School Relations.* Whittier, CA: SCAEYC.

[18] Katz, L. G. (1984). Contemporary Perspectives on the Roles of Mothers and Teachers. In *More Talks with Teachers* (pp.1-26). Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document No. ED250099)
[19] Langdon, H. W., & Novak, J. M. (1998).Multicultures. *Educational Horizons, 77*(1), 15-17.
[20] Lawrence-Lightfoot, S. (2004).Building Bridges from School to Home. *Instructor, 114*(1), 24-28.
[21] Lightfoot, S. L. (1978).*Worlds apart: Relationships between Families and Schools.* New York: Basic Books.
[22] Love, F. E. (1996).Communicating with Parents: What beginning Teachers can do. *College Student Journal, 30*(4), 440-444.
[23] Mahler, J. (2011, April 6). The Fragile Success of School Reform in the Bronx. *The New York Times Magazine, MM34.*
[24] Metcalf, L. (2001). The Parent Conference: An Opportunity for requesting parental collaboration. *Canadian Journal of School Psychology, 17*(1), 17-25.
[25] Ramirez, F. (2001).Technology and Parent involvement. *Clearing House, 75*(1), 30-31.
[26] Ramirez, A. Y. (2002). How Parents are Portrayed among Educators. *The School Community Journal, 12*(2), 51-61.
[27] Solity, J. (1995).Psychology, Teachers and the Early Years. *International Journal of Early Years Education, 3*(1), 5-23. (ERIC Journal No. EJ505513)
[28] Schussler, D. L. (2003). Schools as Learning Communities: Unpacking the Concept. *Journal of School leadership, 13,* 498-528.