

An Innovative Educational Research

¹Hiteshvari Maheta, ²Trushal Maheta

Problem- Children find English as a difficult language.

I. Introduction

I have been working in nani prathamik, school since 5/07/2010 as an English teacher. In my school there are 12 teachers and 400 students. In the village the maximum number of villagers belonging to rabari caste and have labouring as their main occupation. In the school while teaching, I found that students avoided the language "English" considering it to be a tough language. They couldn't read and understand it. The vocabulary was too poor. It was a major problem and I always used to think about it and discussed it with my wife who is also an English teacher in the Vidyamandir school, Palanpur.

As it is widely known that there are four basics to learn any language. These are Listening, Speaking, Reading and Writing (L, S, R and W). So to make student listen and speak better, better opportunities and environment shall be provided.

Reading is based on identification of alphabets and identification of alphabets means capturing of images of alphabets in the student eye. This is known as eye scanning. So when reading is based on identification of alphabets then why shouldn't to learn those letters which are frequently used in language in spite of by hearing the old used order. And why the old alphabetic order should be followed! Only because it was the order in which our fathers and their fathers were taught.

About our research

Our research is based on the alphabets of English. Any language have four basics-

1. Listening
2. Speaking
3. Reading
4. Writing

What's listening?

Paying attention to an advice or a request.

What is speaking?

Ability to communicate in a particular language.

What is reading?

To explain whatever you recognize.

What is writing?

To draw something

It has been proved in a research that 40% of listening, 35% of speaking, 16% of reading and 9% of writing help the student in learning. So it is clear that 91% of help a student get is from listening, speaking and reading. Usually a child first listens then he tries to speak and then he starts reading. So first he will listen then will speak but for reading he will have to recognize the alphabets which mean reading is based on recognition.

So if reading is based on recognition then "why most frequent letters shall not be taught first. why 'A' should always be given first place and 'Z' as the last?"

The question is "**Why A should always be given first place and Z as the last?**"

How our research began?

Our research included 2600 words in which there were set of 100 words starting from each alphabet of English. From them the word of daily use and loan words were selected first. Counting was made to know the most frequent alphabet and its frequency was recorded.

Example

1

A	P	P	L	E
1	1	2	1	1

2

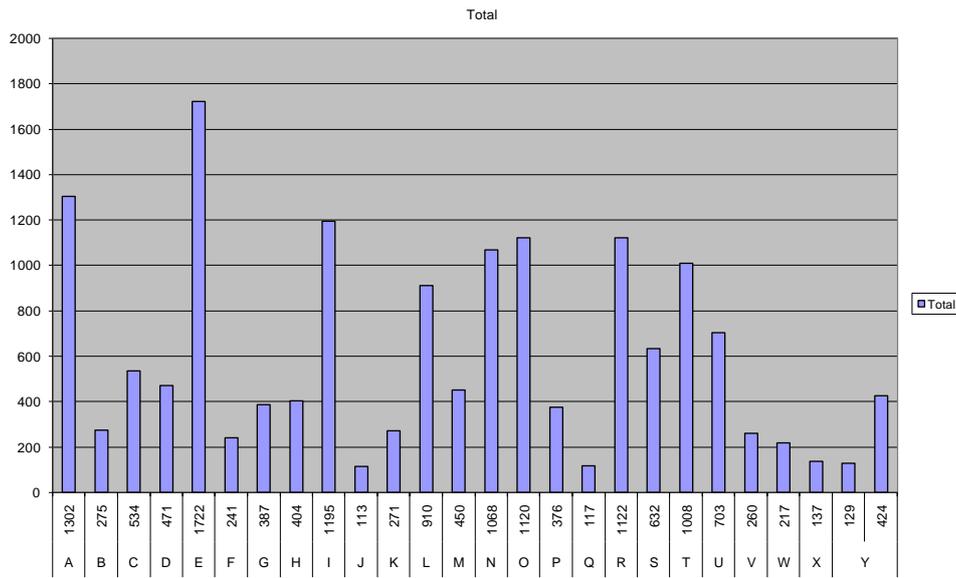
A	N	I	M	A	L
2	1	1	1	3	2

There were total 15,588 alphabets in 2600 words. Before the result we assumed that most frequent alphabets will be the vowels but it was totally not so.

The first five letters were E, A, I, R, O which were represented through a table following the other alphabets. Also their frequency was noted down. The letter 'E' was the most occurring letter and occurred 1722 times.

Table no.-1 The table showing the numbers of alphabets in 15,588 alphabets (2600 words).

No	Alphabets	Out of 15,588
1	E	1722
2	A	1302
3	I	1195
4	R	1122
5	O	1120
6	N	1068
7	T	1008
8	L	910
9	U	703
10	S	632
11	C	534
12	D	471
13	M	450
14	Y	424
15	H	404
16	G	387
17	P	376
18	B	275
19	K	271
20	V	260
21	F	241
22	W	217
23	X	137
24	z	129
25	Q	117
26	J	113
		Total- 15,588 alphabets

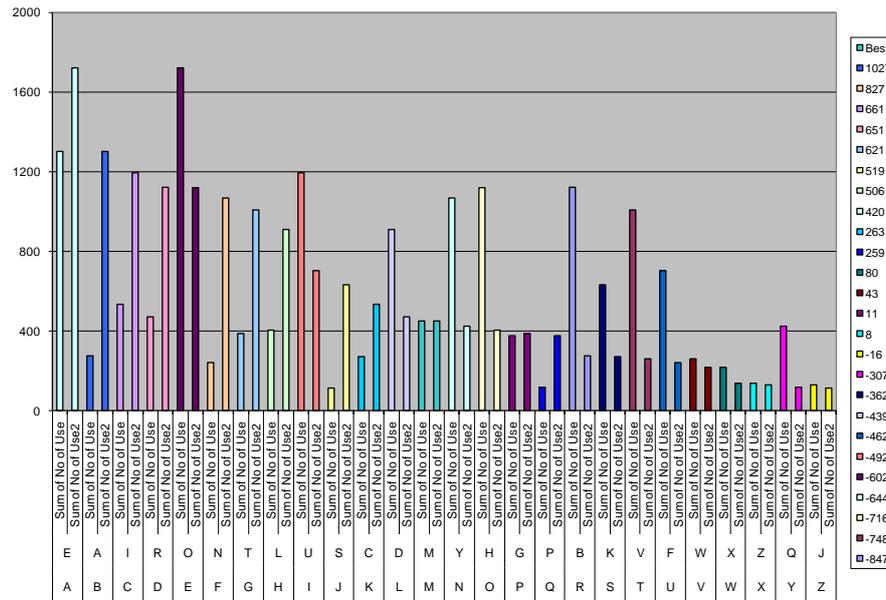


The second table shows the comparison of new and old order of alphabets. In the table we observed the difference between two letters carried. The letter ‘E’ was used 1722 times and letter ‘A’ 1302 times. The difference was of 420. It means that ‘E’ was used 420 times more than the letter ‘A’. Then why shall letter ‘A’ take first place always?

Table no. 2- The table showing difference between old system of alphabets and new system of alphabets.

No.	Old System	No. of use	Difference	New System	No. of use
1	A	1302	+420	E	1722
2	B	275	-1027	A	1302
3	C	534	+661	I	1195
4	D	471	+621	K	1121
5	E	1722	-402	O	1120
6	F	241	+827	N	1068
7	G	387	+811	T	1008
8	H	404	+506	L	910
9	I	1195	-492	U	703
10	J	113	+591	S	632
11	K	271	+235	C	534
12	L	910	-439	D	471
13	M	450	Base	M	450
14	N	1068	-644	Y	424
15	O	1120	-716	H	404
16	P	376	+11	G	387
17	Q	117	+239	F	376
18	R	1122	-847	B	275
19	S	632	-562	K	271
20	T	1008	-748	V	260
21	U	703	-462	F	241
22	V	260	+85	W	217
23	W	217	+86	X	137
24	X	137	+66	Z	129
25	Y	424	-307	Q	117
26	Z	129	-16	J	113

- We give first place to “E” in the order of alphabets, because “E” has used 420 times more than “A”.
- In place of “B” we put “A” because “A” has used 1027 times more than “B”.



Then we made third table which showing which alphabet used second most time and which are the least used in 100 words starting from an alphabet. Like out of hundred words of the letter “A”, “A” is used for 122 times and second most used letter is “E” that is 46 times and “j, Q” are used for only 1 time from 100 words of the letter “A”.

Table no. 3 -The table showing the alphabets which got second and the last order in use, from the hundred spellings of each alphabet.

No.	Alphabets	100 words	Second used alphabets	Numbers	Last used alphabets	Numbers
1	A	122	E	46	J,Q	1
2	B	108	E	51	P,Q,Z	0
3	C	116	A	53	J,Q	0
4	D	105	E	69	J,Q,X	0
5	E	158	N	68	Z	0
6	F	103	A	68	J,P,Q	0
7	G	107	E	53	Z,X,Q	0
8	H	104	E	45	J,Q,X	0
9	I	141	N	94	Q	0
10	J	102	E,U	48	Q	0
11	K	115	E	66	Q	0
12	L	111	E	57	J,Z	0
13	M	118	E	54	Z	0
14	N	124	E	89	Q,J,F	0
15	O	124	E	88	Q	0
16	P	106	E	65	Q,X	0
17	Q	100	I	73	J,W	0
18	R	125	E	85	J,Z	0
19	S	103	E	54	J,Q,Z	0
20	T	125	E	68	J,Q	0
21	U	118	N	91	J	0
22	V	104	I	116	J,Q	0
23	W	102	A	73	J,Q,Z	0
24	X	104	A	72	J,W	0
25	Y	109	N	69	J,X	0
26	Z	104	A	84	J,V	0

The forth table shows the comparison of frequencies of the alphabets.

Table no. 4

	A	B	C	D	E	F	G	H	I	J	K	L
A	122	50	53	30	39	68	48	27	40	33	39	50
B	6	108	4	5	9	8	6	12	4	2	12	6
C	35	15	116	22	26	19	6	2	25	1	13	14
D	19	16	10	105	11	11	17	16	22	9	16	14
E	46	51	46	69	158	61	53	45	74	48	66	57
F	8	6	3	2	7	103	7	2	11	5	5	8
G	16	13	3	11	19	7	107	9	12	15	12	19
H	6	12	18	3	9	7	8	104	2	2	14	25
I	33	28	30	62	39	41	28	26	14	41	57	51
J	1	0	0	0	2	0	1	0	2	102	1	0
K	3	12	7	8	1	2	2	4	2	10	115	7+
L	28	35	42	17	32	41	24	38	36	29	34	111
M	14	4	21	13	20	11	14	19	29	12	8	6

•By seeing vertically the table.
 •"A" is used 122 times out of 100 words of the letter "A".
 •"B" is used 6 times out of 100 words of the letter "A".
 •"C" is used 35 times out of 100 words of the letter "A".
 •"D" is used 19 times out of 100 words of the letter "A".
 •"E" is used 46 times out of 100 words of the letter "A".

•By seeing Horizontally the table.
 •"A" is used 122 times out of 100 words of the letter "A".
 •"A" is used 50 times out of 100 words of the letter "B".
 •"A" is used 53 times out of 100 words of the letter "C".
 •"A" is used 30 times out of 100 words of the letter "D".
 •"A" is used 39 times out of 100 words of the letter "E".

M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
47	42	32	42	59	34	48	37	35	42	73	72	56	84	1302
3	6	14	2	3	14	1	5	9	4	6	4	8	14	275
11	16	25	21	19	18	16	11	12	27	8	19	8	17	534
17	10	17	7	19	16	13	12	34	10	17	14	14	5	471
54	83	88	65	68	85	54	68	71	60	65	71	65	51	1722
1	0	21	6	6	4	3	3	8	4	4	5	6	3	241
10	12	11	12	5	11	8	5	11	12	11	7	13	16	387
4	13	9	5	4	10	27	22	6	1	30	37	12	14	404
38	38	34	30	73	24	25	42	40	116	25	63	15	55	1195
1	0	2	1	0	0	0	0	0	0	0	0	0	0	113
11	7	5	10	13	5	7	8	3	1	8	1	16	3	271
29	20	24	39	27	18	25	26	40	49	41	47	38	20	910
118	13	11	9	6	15	9	14	14	4	10	20	17	19	450
36	124	35	33	36	26	25	26	91	31	27	9	69	42	1068
45	49	124	44	21	47	30	35	31	56	31	70	50	45	1120
3	9	7	106	9	7	20	15	30	3	2	26	6	21	376
1	0	0	0	100	1	0	0	2	0	0	1	0	5	117
35	33	58	39	45	125	37	52	56	32	48	47	43	38	1122
19	21	24	18	21	26	103	18	23	26	20	26	18	19	632
29	44	32	29	46	30	32	125	46	50	37	39	20	24	1008
22	17	13	20	110	28	13	20	118	19	9	12	25	18	703
1	11	32	2	4	3	7	3	6	104	4	2	1	0	260
1	8	11	2	0	5	6	4	12	2	102	0	17	3	217
1	1	5	0	1	1	2	1	1	3	1	104	0	2	137
15	10	7	12	9	12	10	12	11	11	6	53	109	4	424
0	1	1	1	4	0	0	0	1	2	0	2	0	104	129

The fifth table shows the number of main letter and rest of the letters of hundred words of each alphabet are recorded. In this "E" was the most used alphabet where as J, Q and Z were the least used.

Table no. 5

	A	B	C	D	E	F	G	H	I	J	K	L
A	0	1027	768	831	-420	1061	915	-898	107	1189	1031	392
B	-1027	0	-259	-196	-1447	34	-112	-129	-920	162	4	-635
C	-768	259	0	63	-1188	293	147	130	-661	421	262	-376
D	-831	196	-63	0	-1251	230	84	67	-724	358	200	-439
E	420	1447	1188	1251	0	1481	1335	1318	527	1609	1451	812
F	-1061	34	-293	-230	-1481	0	-146	-168	-954	128	-30	-669
G	-915	112	-147	-84	-1335	146	0	-17	-808	274	116	-523
H	-898	129	-130	-67	-1318	163	17	0	-791	291	133	-506
I	-107	920	661	724	-527	954	808	791	0	1082	924	285
J	-1189	-162	-421	-358	-1609	-128	-274	-291	-1082	0	-158	-797
K	-1031	-4	-263	-200	-1451	30	-116	-133	-924	158	0	-638
L	-392	635	376	439	-812	669	523	506	-285	797	639	0
M	-852	175	-84	-21	-1272	209	63	46	-745	337	179	-460
N	-234	793	534	597	-654	827	681	664	-127	955	797	158
O	-182	845	586	649	-602	879	733	716	-75	1007	849	210
P	-926	101	158	-95	-1346	135	-11	-28	-819	263	105	-534
Q	-1185									4	-154	-793
R	-180									1009	851	212
S	-670									519	362	-276
T	-294									895	733	98
U	-599									590	432	-207
V	-1042									147	-11	-650
W	-1085									104	-54	-693
X	-1165									24	-134	-773
Y	-876									311	153	-486
Z	-1176									16	-142	-781

•By seeing vertically out of 15,588 letters,
 •"B" is used 1027 times less than the letter "A".
 •"C" is used 768 times less than the letter "A".
 •"D" is used 831 times less than the letter "A".
 • By seeing Horizontally out of 15,588 letters,
 •"A" is used 1027 times more than the letter "B".
 •"A" is used 768 times more than the letter "C".
 •"A" is used 831 times more than the letter "D".

M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
852	234	182	926	1185	180	670	294	599	1042	1085	1165	876	1173
-175	-793	-845	-101	158	-847	-357	-733	-428	15	58	138	-149	146
84	-534	-586	158	417	-588	-98	-474	-169	274	317	397	110	405
21	-597	-649	95	354	-651	-161	-537	-232	211	254	334	47	342
1272	654	602	1346	1608	600	1090	714	1019	1462	1505	1585	1298	1593
-209	-827	-879	-135	124	-881	-391	-767	-462	-19	24	104	-183	112
-63	-681	-733	11	-270	-735	-245	-621	-316	127	170	250	-37	258
-46	-664	-716	28	287	-718	-228	-604	-259	144	187	267	-20	275
745	127	75	819	1076	73	563	187	492	938	908	1058	771	1066
-337	-955	-1007	-263	-4	-1009	-519	-895	-590	-147	-104	-24	-311	-16
-179	-795	-849	-105	154	-851	-362	-737	-432	11	154	134	-153	-142
460	-158	-210	534	793	-212	278	-98	207	650	-169	177	486	781
0	-618	-670	74	333	-672	-182	-558	-253	190	233	313	26	321
618	0	-52	692	951	-54	436	60	365	808	851	931	644	939
670	52	0	744	1003	-2	488	112	417	860	903	983	696	991
-74	-692	-744	0	259	-746	-256	-632	-327	116	159	239	-48	247
-333	-951	-1003	-259	0	-1005	-515	-891	-586	-143	-100	-20	-307	-16
-672	54	2	746	1005	0	490	114	419	862	905	985	698	993
-182	-436	-488	256	515	-490	0	-376	-71	372	415	495	208	508
558	-60	-112	632	891	-114	376	0	305	748	791	871	584	879
253	-365	-417	327	586	-419	71	305	0	443	486	566	279	574
-190	-808	-860	-116	143	-862	-372	-748	-443	0	43	123	-164	131
-233	-851	-903	-159	100	-905	-415	-791	-486	-43	0	80	-207	88
-313	-931	-983	-239	20	-985	-495	-871	-566	-123	-80	0	-287	8
-216	-644	-696	48	307	-698	-208	-584	-279	164	207	287	0	295
-321	-939	-991	-247	10	-993	-508	-879	-574	-131	-88	-8	-295	0

In this way the new order of alphabets was ready. But for reading the language, the students have to read the words. So we took 12 alphabets from the beginning of the new order and distributed these alphabets in three groups namely A, B and C taking four letters in each.

New order

Group A (E, A, I and R)

Group B (O, N, T and L)

Group C (U, S, C and D)

After distribution four more groups were made

Group AB

Group BC

Group AC

Group ABC

New order of alphabets

Group AB (E, A, I, R, O, N, T and L)

Group BC (O, N, T, L, U, S, C and D)

Group AC (E, A, I, R, U, S, C and D)

Group ABC (E, A, I, R, O, N, T, L, U, S, C and D)

Old order

Group ABC (A, B, C, D, E, F, G and H)

Group BC (E, F, G, H, I, J, K and L)

Group AC (A, B, C, D, I, J, K and L)

Group ABC (A, B, C, D, E, F, G, H, I, J, K and L)

We did the same for the old order and we made words from the group of old and new order and did comparative study and found that “A group” of the old order of alphabet made 19. The difference was of 8 words. Like this the second “B group” of four words of old alphabet made 7 words but the new one made 18 words. The difference was of 11 words. The third group of old order made three words but the new one made 6 words. The difference was of 3 words.

“AB” group of the old order made 114 words but the new order made 493 words. The difference was of 379 words. The “BC” group of old order made 47 words but the new one made 189 words. The difference was of 142 words. The “AC” group of old order made 71 words but the new one made 503 words. The difference was of 432 words.

The last group “ABC” of old alphabet made 503 words but the same of new order surprising made 6,952 words. The difference was of 6,444 words.

The table is showing the difference between the number of words of the new and old orders’ group of Alphabets

Groups	Words made of the old order of Alphabets	Difference	Words made of the new Order of Alphabets
Group A	a,b,c,d 11 Words	+8	e,a,l,r 19 Words
Group B	e,f,g,h 7 Words	+11	o,n,t,l 18 Words
Group C	i,j,k,l 3 Words	+3	u,s,c,d 6 Words
Group AB	a,b,c,d,e,f,g,h 114 Words	+379	e,a,l,r,o,n,t,l 493 Words
Group BC	e,f,g,h,i,j,k,l 47 Words	+142	o.n.t.l.u.s.c.d 189 Words
Group AC	a,b,c,d,i,j,k,l 71 Words	+432	e,a,l,r,u,s,c,d 503 Words
Group ABC	a,b,c,d,e,f,g,h,i,j,k,l 509 Words	+6443	e,a,l,r,o,n,t,l,u,s,c,d 6952 Words

Then why should students taught by old order? And why shouldn't we make them learn the words with alphabets?

After making them learn, the first four alphabets we should make them recognize and read the words made from those alphabets.

But still we wanted reading easier. Another concept strike in our mind that why shouldn't we make students learn small letters first instead of capital letters?

Because in every sentence small letters are more frequent than capital ones. For example “India is my Country”. This sentence is made by 16 alphabet and four words in which we can see that only 1 letter is capital and 15 letters are small letters.

It means when the students are going to read they have to recognize the small letters more. Then why shouldn't we give them an opportunity to recognize the letters by making them learn the small letters. So when he identifies the capital letter, what field of success does he achieve?

He will find such an environment in which he will identify the first letter of the words and the rest remain as a drawing. So if we make them learn the small letter first the process of identification and consideration of alphabets will learn to read fast.

Result of innovative experiment-

The students of my school are taught English through this method and positive result are the outcome every time. We used flash cards of alphabets and made them read English magazine to identify the letters and again we got positive result.

In the year 2011- There were 49 students in the class 5th in which there were 30 boys and 19 girls. The students were distributed in two groups equally. One group was taught through the old whereas the other through new order till 15days.

The course book of class 5th was given to read to the students of both the groups. The reading capability of the students, of the group which taught in new order, was far better than that of the students of the other group. Later I introduced the research to our school's cluster and to all the teacher training workplace at tan Tehsils. So that other school can give benefits to their students by adoption of this method.

In the year 2012- The teachers of other Tehsils and districts were suggested to adopt this method of teaching. It was also represented in Palanpur District Institute of education and training (DIET).

In the year 2013- The research was represented in the half yearly edition of a book of Banaskantha DIET. Mrs.Hiteshwari represented this research to her director of institute in which she worked and getting inspired and surprised by the research it was added in the syllabus of the school. To make aware of the concept and the book, a seminar was also organised by the institution.

From the year 2014 to the present time in 2015 this book is taught in “The Vidyamandir Trust” and I too teach through this method in my school. The result is as hoped, very positive.

Major findings-

- **We proved that the new order of alphabets is more useful in reading than old order.**
- **The students learn more words by the new order of alphabet as compared to the older ones.**
- **The students learn reading with a greater speed by using the new order.**
- **Using the new order helps the student to grasp more words and thus it improves vocabulary.**
- **Identification of small letter is more important than capital letter for fast reading.**

Thank you

Innovators

Mrs.Hiteshwari Maheta

Mr. Trushal Maheta

Mo. 09558031265Mo. 07600295649

School - Nani Prathmik Shala Deesa Banaskantha (North Gujarat).

Address- Street no. 25, Old laxmipura,palanpur

Pin: 385001

District: Banaskantha

State: Gujarat(India)

email id:swaratusharmehta@gmail.com