

RESEARCH PAPER

CHALLENGES IN ENGLISH COMMUNICATION FOR LEARNING PROFESSIONALS : A STATISTICAL ANALYSIS

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ABSTRACT

Effective Communication is an essential aspect of any profession. Being the language of international acceptance, English is an important part of effective communication. In this paper we identified various factors affecting communication of studying professionals. Information through schedule is collected on a sample size of thirty five. Fundamental impact of these factors (individually and collectively) on communication is observed. Analysis is presented through Pareto charts, ANOVA and Tukey Kramer test for deep insight of the issue under consideration. This study is a basis to design treatment/s for breaking communication barriers imposed by various factors under study.

Keywords: *Communication Barriers, Communication Gaps, ELLs, ESLs.*

1. INTRODUCTION

The role of effective English communication holds global importance. Any organization operating across the globe which is hiring professionals lays special emphasis on the role of communication & spoken English. The British Council of India reports that by 2020, 2 billion people will be studying English language since it has clearly become the global language that business speaks. All the recruiting companies give weightage to English communication skills of students. The students opting for professional courses include a major chunk of English language learners (ELLs).

[Tarone, 1980] summarizes types of communication strategies under five main categories along with their sub categories. According to [Tarone, 1997], the practical implications of understanding problem management in L2 communication are enormous as L2 courses are not able to prepare students to cope up with performance problems. [Goldenberg, 2008] mentions that speakers of Asian languages comprise 8% of English language learners (ELLs) and over 87% of immigrants from Asian countries have an equivalent of high school diploma, the highest among all immigrants from the major world regions. He does a comparative analysis of past studies in his review paper where he mentions the importance of teaching ELL in their native language and the self sufficiency of a good instruction despite the language.

[Rebecca, L., 2003] mentions in her paper that the general approaches to learning a language and strategies together comprise effective language learning. According to [Maleki, 2010], communication strategies are conducive to language learning. He introduces techniques to apply these communication strategies to facilitate language learning. The studies conducted previously present some important analysis regarding effective communication teaching and learning. According to [Abedi, J., 2010] the standardized tests are not the right measure for assessing

ELLs, however performance assessment would be a better indicator of judging ELLs progress. [Modi M,V., 2012] mentions the popular trends in ELT that have replaced the old day's practices of English teaching. [Dash, 2013] explores how written words relate to spoken words and finally how they contribute to speech.

The studies conducted previously mostly focus on the pedagogy adopted by ELTs, the approaches to be used and the mix of strategy and communication to be used while teaching. The research work presented so far has been largely qualitative in nature. However our paper finds out the factors which need prime attention while training ELLs and important factors while designing ELL training schedule, in a statistically viable manner.

In our paper we find factors which are important to effective communication. We treat Overall communication as a dependent variable which consists of eight different dimensions: grammar, vocabulary, body language, tone, self Confidence, general awareness, pronunciation & understanding of language.

The paper is organized in the following sections: In section 2 we discuss research methodology, in section 3 we analyze the compiled data and present all the outcomes, in section 4 of the paper we conclude the paper with suitable recommendations and future scope.

2. RESEARCH DESIGN & METHODOLOGY

Research Methodology: In order to develop understanding of the impact of each factor which is important for effective English communication, quantitative research methodology was selected. Within quantitative research paradigm an action research was designed which helped in identifying the factors which needed prime attention while treating students for effective English communication. The result of this study will serve as a basic working formula to design

appropriate treatment to be applied. Researchers plan to design separate action treatment to be designed for each factor in future. This research provides insights on designing the training module, which factors to be clubbed & which not to be clubbed while treating students.

Participants and Data Collection: The participants of research comprise a random sample representing a mix of varied cultural, economic and social backgrounds. In this research process we use two methods of data collection: Observations and Interviews. Through observations during classroom teaching, various factors were conceptualized which comprise effective English communication. The first step post this was to draft a

questionnaire. On finalization of this questionnaire, the second step was to get the questionnaires filled by students personally. The language used for questionnaire is English as students belong to varied cultural backgrounds. Thus in order to create a reference point we chose English as the medium. The questionnaires were filled in the presence of researchers and it was made sure that the meaning and context of each question is clear to the students. Students' responses were kept confidential during the entire course of study. Each questionnaire was then man-tabbed in excel and tests were run on the data to find meaningful interpretation. The data analysis techniques used for the purpose of the study include Pareto Charts, ANOVA and Tukey Kramer test.

3. DATA ANALYSIS AND INTERPRETATION

Pareto Chart: Analyzing Cumulative Effect

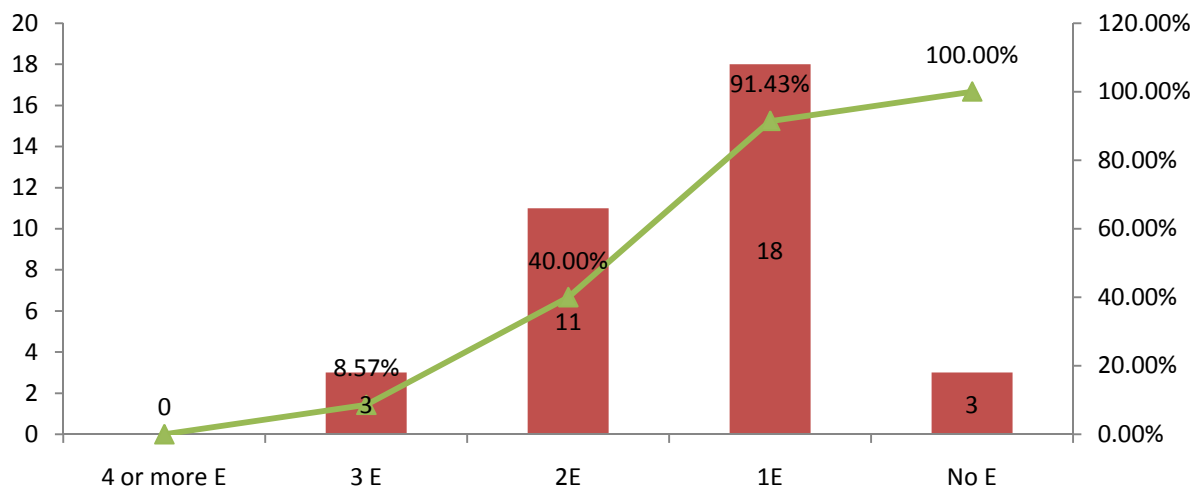


Fig.1: Cumulative Effect of Grammar

Grammar: When asked for placing an order in a restaurant, 91.43% students ended up making one or more grammatical error in a maximum of two sentences. This is a high percentage and a critical factor for concern. The Pareto chart for this factor indicates that this factor could be adversely impacting effective communication.

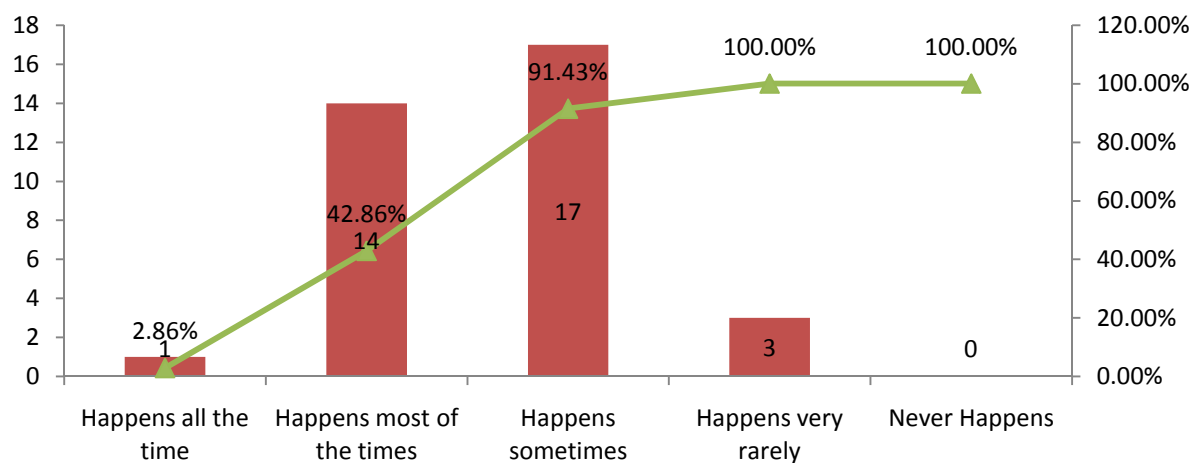


Fig.2: Cumulative Effect of Vocabulary (1)

Vocabulary: Figure 2 reflects that only 8.57% students are such who rarely or never run out of words while speaking in English. That shows, most of the students are unable to express themselves due to lack of words. This is a big hindrance in effective communication as it leads to a momentary pause for word search which may in turn spoil a student's flow of speech and confidence.

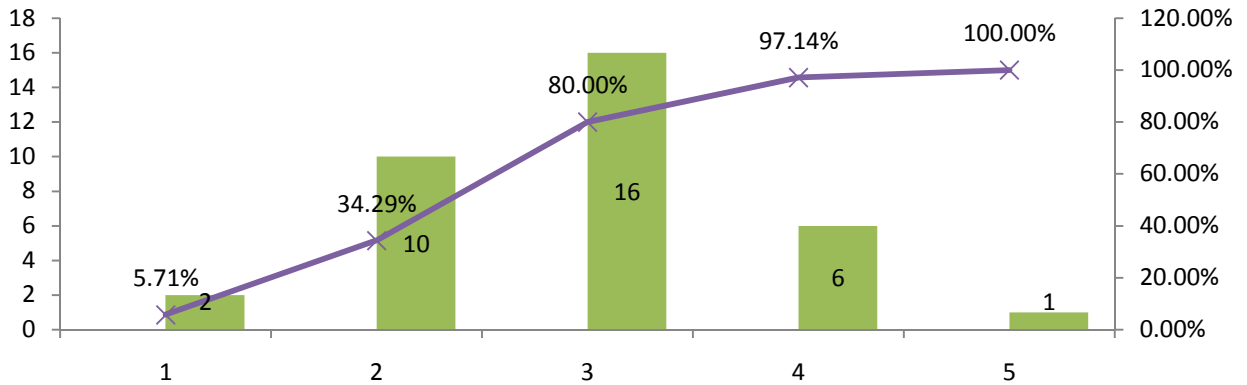


Fig.3: Cumulative Effect of Vocabulary (2)

Figure 3 directionally supports the data in figure 2. As per this data only 20% of students feel they do not have to struggle for thinking about the most appropriate word while speaking. That shows, most of the students have a weak vocabulary which prevents them from using the exact and most suitable word while framing a sentence and they use alternate words.

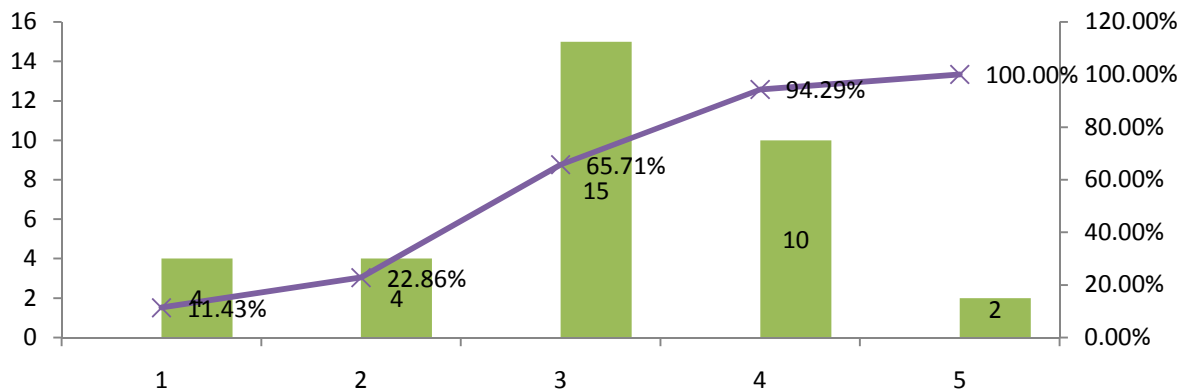


Fig.4: Cumulative Effect of Body Language

Body Language: According to a short self-assessment test on body language, data shows that most of the students display good or very good body language while speaking in public. However the percentage of students displaying 'poor body language' is 11.43%.

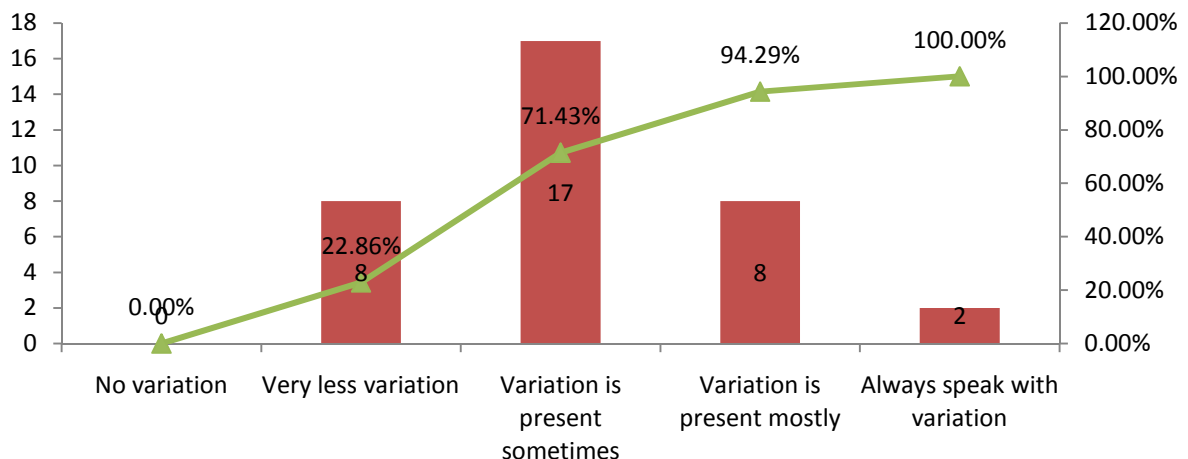


Fig. 5: Cumulative Effect of Tone

Tone: Figure 5 shows that student’s exhibit moderate behavior in tone and variation while speaking. Both the extremes recorded very less percentage of students. Most of the students admitted that variation in tone is present sometimes but not always.

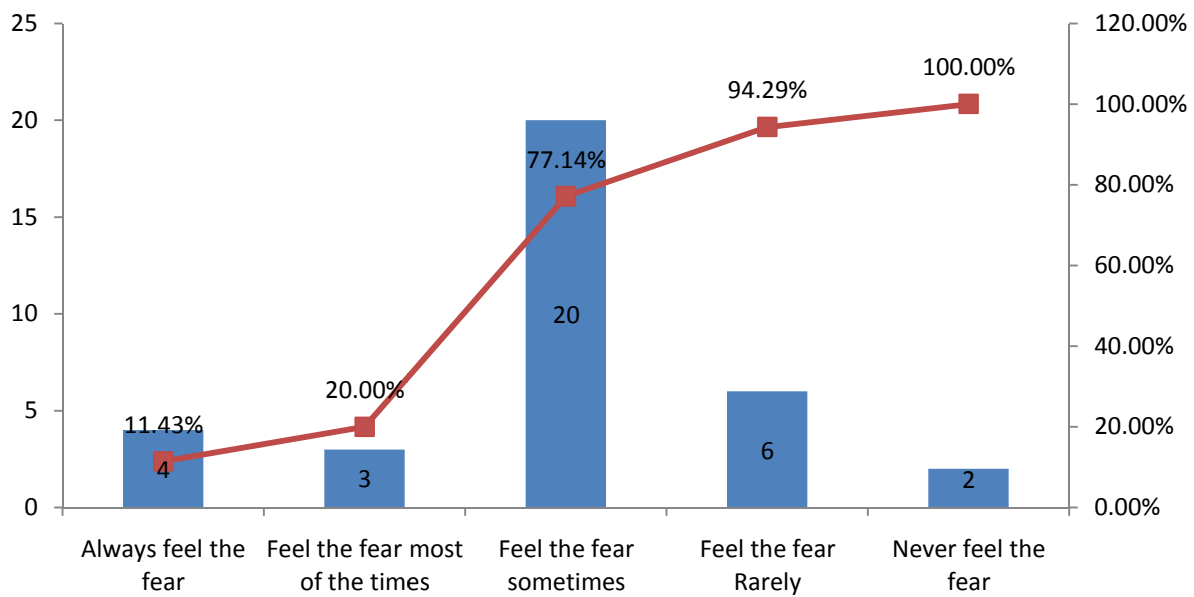


Fig. 6: Cumulative Effect of Self Confidence (1)

Self Confidence: It is evident from the figure above that, 77.14% of the people feel fear of being made fun of. That shows that a huge population is low in confidence because of environment they are surrounded by. If an awareness amongst the colleagues can be developed of not to make fun of the people, the impact of this factor can be reduced. Hence a treatment can be designed to create awareness amongst the group of people not to make fun of the people who are trying to improve on their communication.

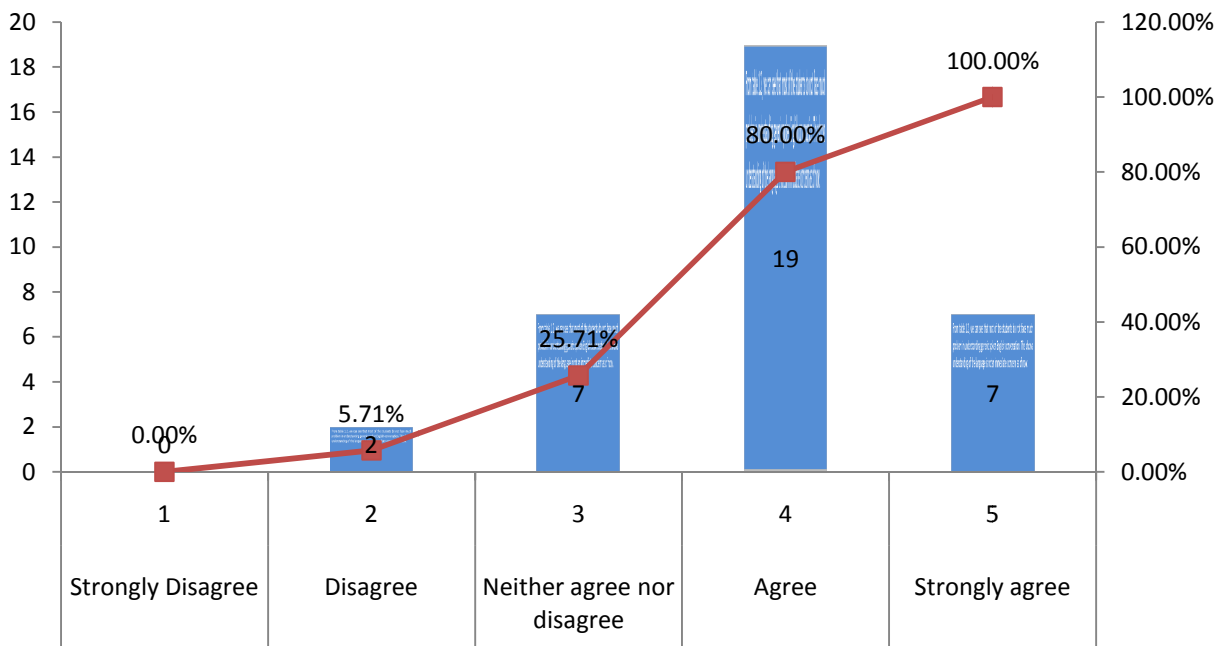
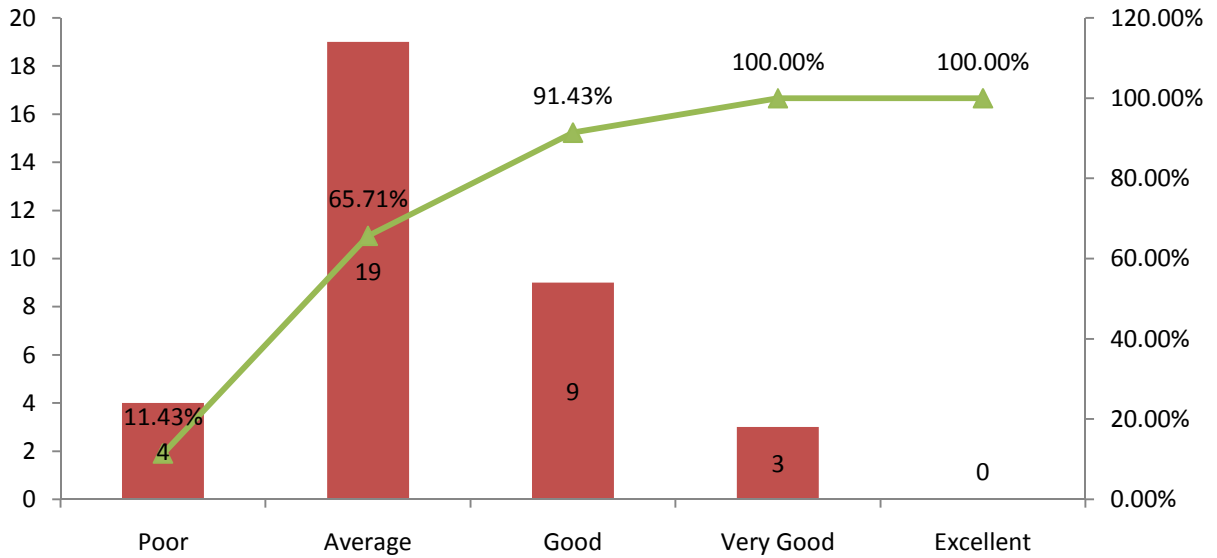


Fig. 7: Cumulative Effect of Self Confidence (2)

Figure 7 shows that only 25.71% people have a low self- confidence however most others think they can do things as well as others can do them.



General Awareness: Data in figure 8 reflects that only 8.57% people state they have very good general awareness.

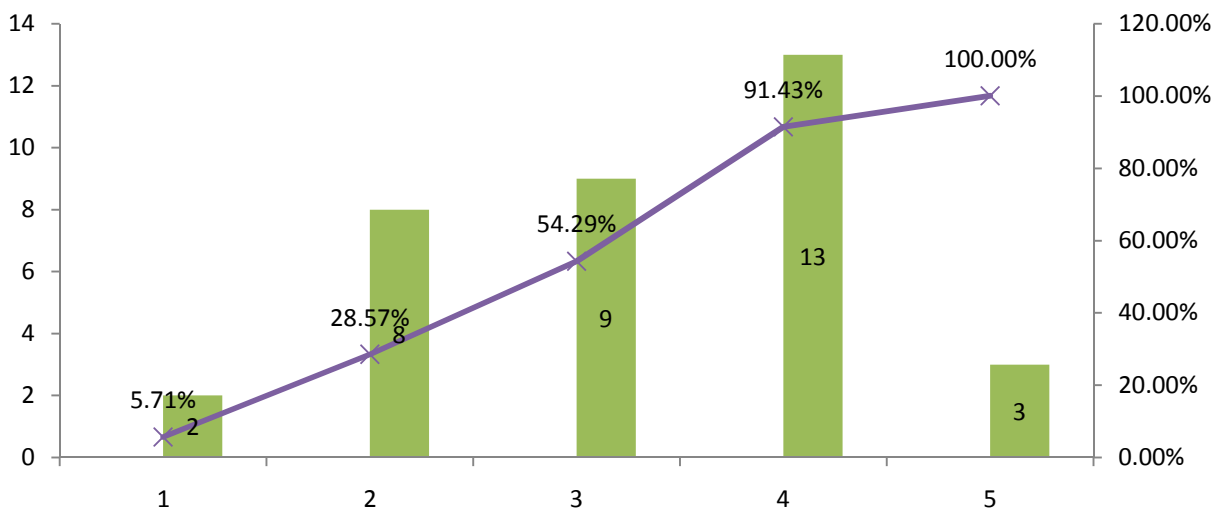


Fig. 9: Cumulative effect of Pronunciation

Pronunciation: The results of a short pronunciation test show that 45.71% students got 80% and above correct score. This shows that pronunciation is not a prime area of concern for now.

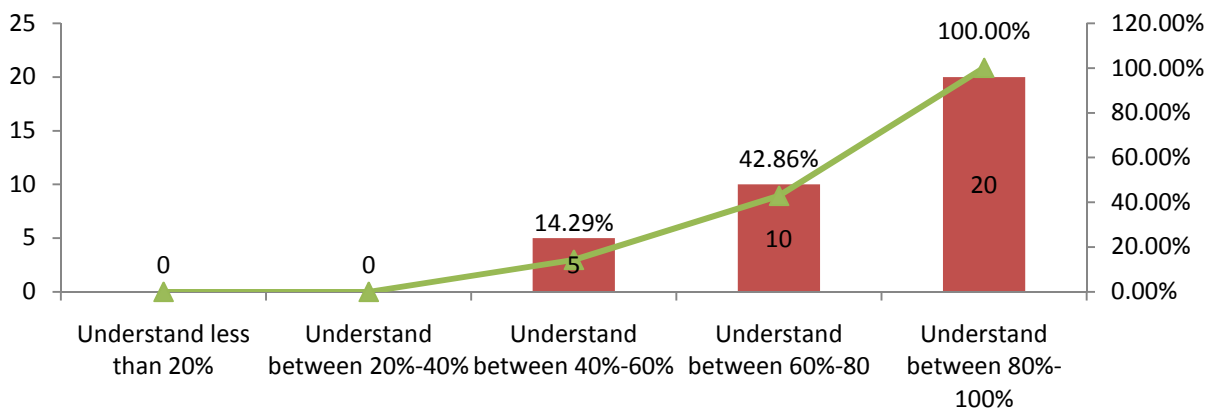


Fig. 10: Cumulative Effect of Understanding (1)

Understanding: From figure 10, we can see that most of the students do not face much problem in understanding generic spoken English conversation. This shows understanding of the language is not an immediate concern.

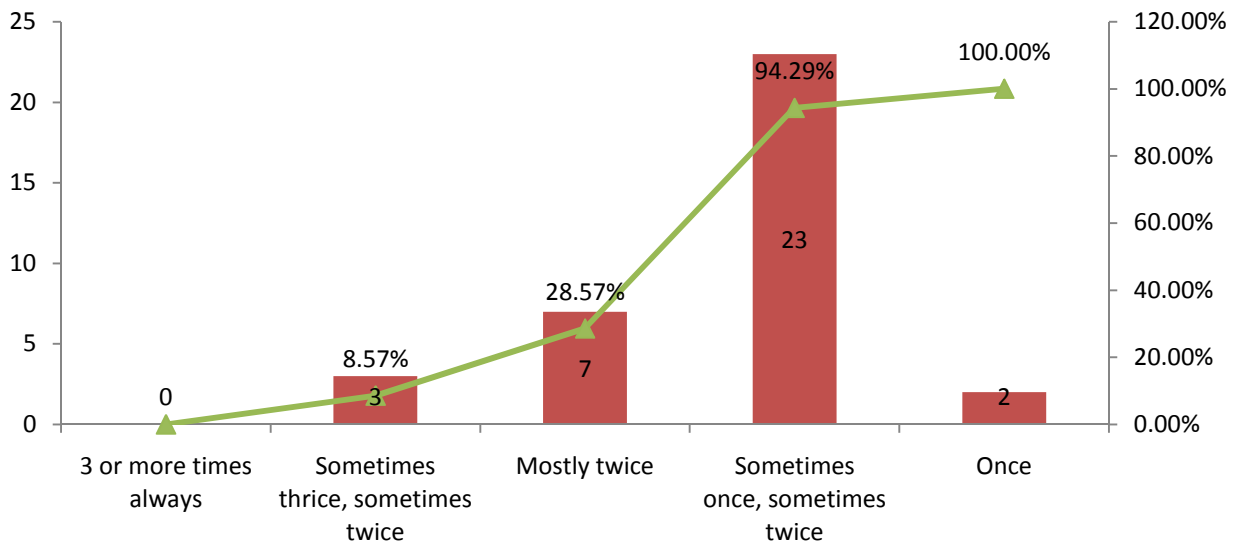


Fig. 11: Cumulative Effect of Understanding (2)

Figure 11 depicts that 94.29% students understand a paragraph written in an English newspaper in maximum 2 reads. This means that students do not think their reading and comprehension skills are poor. The data in figure 10 also strengthens the above mentioned which states understanding of English comprehension are not a problem from students' perspective.

4. STATISTICAL ANALYSIS

Hypothesis of ANOVA

Null Hypothesis $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$

The null hypothesis states that the mean of all factors are equal, which means that all factors create an equal impact on overall communication.

Alternate Hypothesis H_a : Any of the means is not equal to the other.

The alternate hypothesis states that the mean of any of the factors is not equal, which means there are some factors that may be creating more impact on overall communication in comparison to others.

In order to test the hypothesis, we run ANOVA. The summary of single factor ANOVA is presented below.

Table 1a: Summary of ANOVA

S. No	Groups	Sum	Average	Variance
1	Body Language	107	3.114	0.692
2	Tone	109	2.729	0.520
3	Vocabulary	95.5	3.386	0.428
4	Self Confidence	118.5	3.600	0.600
5	Grammar	126	2.314	0.634
6	General Awareness	81	2.971	0.661

7	Pronunciation	104	4.057	0.408
8	Understanding	142	3.114	0.692

Summary of ANOVA: Single Factor for a sample size: 35

The mean scores of factors show the average score of sample on respective factors out of 5. From the table above we analyze that students score the least on General awareness followed by vocabulary & pronunciation.

Table 1b: Summary of ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	69.954	7	9.993	15.809	0.000	2.043
Within Groups	171.943	27	6.368			
Total	241.897	27				

The ANOVA table shows that the f (statistic) value is more than f (critical) value which means we can reject the null hypothesis. This means that all the factors do not impact overall English communication to the same level. Thus a common treatment module cannot be designed to take corrective action for overall communication. In order to identify the exact factors causing the maximum variance we run Tukey Kramer post hoc test.

Post Hoc test: Tukey Kramer: In the post hoc test we first created all possible factor combinations, and then run the Tukey Kramer test for the same. Each combination denotes a set of mini hypotheses.

Thus for the combination (i,j) mentioned in the table,

Null hypothesis, H_0 is $\mu_i = \mu_j$ and

Alternate hypothesis, H_a is $\mu_i \neq \mu_j$.

For all the combinations with conclusion values as 0, we reject the null hypothesis and accept that mean scores of

those factors are not equal thereby creating more variance and hence more impact on overall communication.

Table 2: Statistical Analysis

Combinations	Mean	Mean Modulus	Critical Range	Conclusion	Variation Difference
1,2	-0.057	0.057	0.58	1	-0.523
13	0.329	0.329	0.58	1	-0.251
14	-0.329	0.329	0.58	1	-0.251
15	-0.543	0.543	0.58	1	-0.037
16	0.743	0.743	0.58	0	0.163
17	0.086	0.086	0.58	1	-0.494
18	-1.000	1.000	0.58	0	0.420
23	0.386	0.386	0.58	1	-0.194
24	-0.271	0.271	0.58	1	-0.309
25	-0.486	0.486	0.58	1	-0.094
26	0.800	0.800	0.58	0	0.220
27	0.143	0.143	0.58	1	-0.437
28	-0.943	0.943	0.58	0	0.363
34	-0.657	0.657	0.58	0	0.077
35	-0.657	0.657	0.58	0	0.077
36	0.414	0.414	0.58	1	-0.166
37	-0.243	0.243	0.58	1	-0.337
38	-1.329	1.329	0.58	0	0.749
45	-0.214	0.214	0.58	1	-0.366
46	1.071	1.071	0.58	0	0.491
47	0.414	0.414	0.58	1	-0.166
48	-0.671	0.671	0.58	0	0.091
56	1.286	1.286	0.58	0	0.706
57	0.629	0.629	0.58	0	0.049
58	-0.457	0.457	0.58	1	-0.123
67	-0.657	0.657	0.58	0	0.077
68	-1.743	1.743	0.58	0	1.163
78	-1.086	1.086	0.58	0	0.506

The highlighted figures in the table represent those pair of factors for which we reject the null hypotheses. The last column in the table represents the difference the means of the factors. The table below shows that the top three combinations which create the maximum amount of variance and thus impact overall communication the most.

Table 3: Summary of Result

Sequence	Combination	Factors	Variance
1	6,8	General Awareness & Understanding	1.163
2	3,8	Vocabulary & Understanding	0.749
3	5,6	Grammar & General Awareness	0.706

5. CONCLUSION AND FUTURE SCOPE

The combined effect of factors reflected that the proportion doing well in factors like grammar, vocabulary, self-confidence, and general awareness is low. Thus if we want to focus our training module on majority then these are the factors which need to be focused on primarily.

The mean scores reproduced that the students scored the least on general awareness followed by vocabulary, pronunciation and body language. However the factor capturing the highest mean score understands of the language. This means these factors create the maximum negative impact on overall communication. Thus if we assume overall communication to be made up of the factors under consideration then to boost the score of the individual on an overall level we need to focus on these variables first.

Thus the following analysis may be used in two different scenarios.

Table 4: Interpretation of Result

Objective	Plan of action
Want to target the proportion of underperforming students for improvement	Need to target grammar, vocabulary, self-confidence, and general awareness on prime basis
Want to target the factors which are pulling the overall score down in English communication	Need to target general awareness followed by vocabulary, pronunciation and then body language

The result of test of variance illustrates that a common training module cannot be designed for the following

combinations because of statistically significant variation present between them.

- General Awareness & Understanding
- Vocabulary & Understanding &
- Grammar & General Awareness

This shows that these factors are statistically significantly varied and hence need to be treated separately.

Further studies can be carried out on the work by introducing treatments to problem areas.

6. ACKNOWLEDGEMENT

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8. APPENDIX

Questionnaire

Serial no. (Respondent)																				
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Name of Respondent																				
Address/ Landmark																				
Area of residence																				
City																				
Mobile																				
Date of Interview											2014									

Thank you for participating in this survey. Before starting this interview, we wish to tell you a few things. Please be assured that all information given by you will be kept strictly confidential and not revealed to anyone with your name/contact details without your prior permission. The response collected will be added together with the responses of others before presenting the findings. Under no circumstance will this information be used for sales or any commercial purpose.

We request you to give your honest responses to the questions. Do not be biased and do not try to give ideal answers. Failing to do so will defeat the purpose of this questionnaire. We expect you to be truthful to yourself and the questionnaire.

Now you may proceed towards the questions!

- Q1. When you speak in English publicly, do you feel the fear of being made fun of because of the way you speak? Look at the scale and rate yourself.

Always feel the fear	Feel the fear most of the times	Feel the fear sometimes	Feel the fear rarely	Never feel the fear
1	2	3	4	5

- Q2. When you hear a discussion in English, to what extent do you understand it?

Understand less than 20%	Understand between 20%-40%	Understand between 40%-60%	Understand between 60%-80	Understand between 80%-100%
1	2	3	4	5

- Q3. "I am able to do things as well as others can do". To what extent do you agree with this statement?

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

- Q4. Suppose you are in a hotel. You want to place an order, what will you say to the hotel staff (in English)? _____

_____ *Not for students to fill*

4 or more E	3 E	2E	1E	No E
1	2	3	4	5

- Q5. Rate yourself on the level of your general awareness. By general awareness we mean the awareness and knowledge about what is happening around.

Poor	Average	Good	Very Good	Excellent
1	2	3	4	5

- Q6. Please recall, how many times you generally have to read a paragraph written in an English newspaper before you can understand it.

3 or more times always	Sometimes thrice, sometimes twice	Mostly twice	Sometimes once, sometimes twice	Once
1	2	3	4	5

- Q7. While talking to someone, how often do you find yourself out of words? For example, you want to explain something or describe a situation but you do not get the suitable word for it.

Happens all the time	Happens most of the times	Happens sometimes	Happens very rarely	Never Happens
1	2	3	4	5

- Q8. Please think and mark the right option. While talking in English, how often do you feel yourself stuck (for framing a sentence/ for conversion of a sentence in English etc.).

Very frequently	Frequently	Sometimes	Rarely	Never
1	2	3	4	5

- Q9. Following are a set of words written along with 2 pronunciations. Pick the one in which you generally **speak** that word, **not the one which is the correct** pronunciation.

Data	Daa-taa
	Day-taa

Wand	Rhyming with hand
	Rhyming with bond

Memento	Mo-memento
	Me-memento

Resume	Without the 'ay' sound in the end
	With the 'ay' sound in the end

Jewel	Jool
	Jwell

Q10. On a scale of 1 to 5, how would you rate yourself on ‘variation’ in tone while speaking in English? By variation, we mean increasing & decreasing the volume, pitch and speed of your speech.

No variation	Very less variation	Variation is present sometimes	Variation is present mostly	Always speak with variation
1	2	3	4	5

Q11. On a scale of 1 to 5, how would you rate your pronunciation of English words?

Poor	Average	Good	Very Good	Excellent
1	2	3	4	5

Q12. Remember the last time you were asked to come up out of the crowd and speak in English. Now look at the options given below & tick the ones which fit you.

Talk loudly	or	Talk in low volume
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Make hand movements while talking	or	Do not make hand movements
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Try to look at all the students not just one	or	Keep looking at the same person throughout the speech
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Feel extremely nervous till the end of speech	or	Nervous in the beginning but after starting the nervousness reduces
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Deliver the entire speech from same spot	or	Do not remain standing at the same place, keep moving around
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(For official purpose) Code _____

Q13. Of all the factors mentioned below, which three are the most crucial in speaking effective English? Rank them from 1 to 3, 1 being the most important, 2nd being 2nd most important and so on.

Factors: Grammar | Fluency | Body Language | Vocabulary | Understanding of surroundings | Self Confidence | Knowledge of topic | Pronunciation

Rank 1 _____

Rank 2 _____

Rank 3 _____

CLASSIFICATION

Q1. Please tick your gender.

Male	1
Female	2

Q2. Please record your age in completed years?

Less than 19 years	1
20 – 24 years	2
25 - 30 years	3
31 – 35 years	4
36 years and above	5

Q3a. In market research, we classify Chief Wage Earner as the person who contributes the most to the total household income. Now, can you please tell me, what is the occupation of the chief wage earner of this household?

If retired, what was his/her occupation before retirement? _____

Q3b. Now can you tell me what is the highest educational qualification attained by this person? _____

Grid for official purpose
(Not to be filled in by respondents)

		Illiterate	School upto 4 yrs	School 5-9 yrs	SSC/ HSC	Some college but not grad.	Grad/ Post grad. (gen)	Grad Post grad. (Prof)
CIRCLE EDUCATION	→	1	2	3	4	5	6	7
CIRCLE OCCUPATION	↓							
Unskilled	01	E2	E2	E1	D	D	D	D
Skilled workers	02	E2	E1	D	C	C	B2	B2
Petty traders	03	E2	D	D	C	C	B2	B2
Shop owners	04	D	D	C	B2	B1	A2	A2
Businessmen/Industrialists with no. of employees...								
None	05	D	C	B2	B1	A2	A2	A1
1-9	06	C	B2	B2	B1	A2	A1	A1
10+	07	B1	B1	A2	A2	A1	A1	A1
Self-employed professionals	08	D	D	D	B2	B1	A2	A1
Clerical / Salesman	09	D	D	D	C	B2	B1	B1
Supervisory level	10	D	D	C	C	B2	B1	A2
Officers / Executives								
Junior	11	C	C	C	B2	B1	A2	A2
Middle / Senior	12	B1	B1	B1	B1	A2	A1	A1

RECORD SEC

For official purpose (Not to be filled in by respondents)

Q4. Can you please tell me your education?

Upto higher secondary	1
HSC+, but not graduate	2
Graduate/Post Grad–Gen	3
Graduate/Post Grad–Prof	4

Q5. Can you please tell me your occupation?

Salaried Employee (with professional degree)	01	Self Employed	07
➔ With 0-6 yrs of experience		➔ Doctors	

➔ With 6-12 yrs of experience	02	➔ Architects	08
➔ With more than 12 yrs of experience	03	➔ Lawyers	09
Salaried Employee (without professional degree)		➔ CA/CS/ICWA	10
➔ With 0-6 yrs of experience	04	➔ Shopkeeper	11
➔ With 6-12 yrs of experience	05	➔ Businessman	12
➔ With more than 12 yrs of experience	06	Not Working	
		➔ Housewife	13
		➔ Student	14

Q6. Could you please look at this card and tell me in which range your average monthly household income would be?

Less than Rs.12500	1	Rs.50001-Rs.75000	5
Rs.12501-Rs.20000	2	Rs.75001-Rs.100000	6
Rs.20001-Rs.30000	3	Rs.100001-Rs.150000	7
Rs.30001-Rs.50000	4	More than Rs.150000	8

