Research Journal of English Language and Literature (RJELAL)
A Peer Reviewed (Refereed) International Journal
http://www.rjelal.com; Email:editorrjelal@gmail.com

Vol.4.Issue 2.2016
(Apr-Jun)

RESEARCH ARTICLE

INTERNATIONAL STANDARD SERIAL NUMBER INDIA
2395-2636 (Print):2321-3108 (online)

A STUDY ON THE LEARNING STYLES PREFERRED BY THE ENGINEERING AND NON ENGINEERING LEARNERS OF ENGLISH IN THE STATE OF TELANGANA

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ABSTRACT

English is the most widely used language in the world. It is the language of not just business but also politics, science and technology, sports and entertainment. In such a competitive atmosphere it is essential to know how the students of engineering are learning or acquiring their second language. This paper is a study on the learning styles preferred of the engineering learners of English in the state of Telangana. The sample population of the study were 240 engineering learners of English from two prominent universities, Jawaharlal Nehru Technological University Hyderabad (JNTU-H) and Osmania University (OU), in Hyderabad, Telangana. These learners of engineering are from different social backgrounds but study English under the same settings. To know the style preferences of the learners the researcher used Willing's learning style questionnaire, administered to the sample population, and calculated the frequency of styles using Lickert three point scale.

Key words: learning styles,Willing's questionnaire, sample population, Lickert scale

1. INTRODUCTION

The aim of all language is communication. In today's world where communication plays an integral part in every sphere of an individual's life, it becomes all the more essential to pay attention to one's language. Language is after all the vehicle of communication. English is the most fluid language and most absorbing too. It is the only language that has highest number of words borrowed from world languages. It continues to add to its lexicon newer words to enable its user's huge variety. English as the language of professional India is now irreplaceable. Every year hundreds of technical and non-technical professionals graduating from various institutes find themselves crippled to compete with the outside world due to lack of communication skills in the English language. In the text *Technical Writing and Professional Communication for Non Native Speakers of English*, (1991, p03) Leslie A Olsen writes- "scientists and engineers may be technically brilliant and creative, but unless they can convince co-workers, clients and supervisors of their worth, their technical skill will be unnoticed, unappreciated and unused."

While much has been and continues to be, written on the teaching methods, teaching strategies, teaching styles there is significantly less work on learning methods, learning strategies and learning styles. Learning styles are defined by different scholars in different ways Learner's style is concerned with the learners' preferences for ways of organizing his/her learning and with the

interaction between his/her personality and his/her situation as a learner. – Carver (1984 pp124)

learning style is a preferred pattern of mental or physical functioning useful in processing information.- Ehram and Oxford 1990.

About how individual learners differ in their learning styles Gagne (1967) stated-

The question of how people differ in the rates, extent, style and quality of their learning is one which has concerned psychologists for a great many years. It appears that for many years the tradition of intelligence testing seems to have cast an obscuring shadow over the whole enterprise. At the present time it seems fair to say that we know considerably more about learning, its variables and conditions than we did ten years ago. But we do not know much more about individual differences in learning than we did thirty years ago. (p xi)

1.1. Aim: This study aims to identify the learning styles applied by the undergraduate learners for acquisition of second language. The study assumed that there are differences in approaches towards learning English language skills at the undergraduate level between students pursuing professional courses and non professional courses. It is assumed that students do not 'carry forward' anything that they learn in language course. This is inferred from the fact that a student is able to complete an activity/exercise on grammar or vocabulary but if they have to apply the same language principle in real situation it does not occur to them i.e., they are unable to recall.

1.2 Literature Review

Jones (1997) noted the early development in research related to learning styles-

The term *learning style* has emerged more recently as a more common term or as a replacement term for cognitive learning style. One main difference between the two concepts is that, whilst cognitive style is a bipolar dimension, learning style models are multidimensional rather than bipolar and encompass a range of variables including many of a noncognitive nature (p 73 & 75).

M.E. Ehrman et al. (2003) discussed the early history of learning styles as The actual term, learning style, did not appear until.

Thelen (1954) used it in discussing group dynamics. However, the literature on learning styles uses the terms learning style, cognitive style, personality type, sensory preference, modality, and others rather loosely and often interchangeably (p 313). Learning styles are simply different approaches or ways of learning.

Joy M Reid (1995) defined learning styles as Learning style refers to an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills. These learning styles persist, regardless of teaching methods and content areas (p ix).

Dunn et al (2002) defines learning styles as Every person has a learning style—it's as individual as a signature.

1.3 Assessing L2 Learning Style

By far the most common type of assessment tool for L2 learning styles is the written survey. In surveys, students answer questions that reveal their particular style preferences. Style surveys vary in reliability and validity. (Oxford, 2003)

1.4 Categorization of Learning Styles

Joy M Reid (1995) in his preface to 'Learning Styles in the ESL/EFL Classroom' categorizes learning styles under the following heads and sub-heads

Cognitive Learning Styles

Sensory Learning Styles

Affective/Temperament Learning Style

Research by Willing in his seminal work Learning Strategies in Adult Migrant Education (1988), revealed that learning styles are a matter of cognitive ability and attitude for learning and; there is no relationship between learning strategy and ethnicity. Based on his research, Willing identified four major language learning styles as under

1.4.1 Communicative (field independent and active): They like to learn by watching listening to native speakers, talking to friends in English, watching television in English, using English out of class, learning new words by hearing them, and learning by conversation.

1.4.2 Analytic (field independent and passive): They like studying grammar, studying English books and newspapers, studying alone finding their own mistakes, and working on problems set by the teacher.

1.4.3 Authority oriented (field dependent and passive): The learners prefer the teacher to explain

everything, having their own textbook, writing everything in a notebook, studying grammar, learning by reading, and learning new words by seeing them.

1.4.4 Concrete (field dependent and active): They tend to like social interactions, games, pictures, film, video, using cassettes, talking in pairs, and practicing English outside class. They prefer physical tasks to written exercises.

2. Material and Methods: This research is based on the question: Are there any significant differences in second language learning styles between students who undertake study of engineering and students who undertake study of non engineering courses. The participants in this research were students enrolled in engineering course and non-engineering course under Osmania University and under Jawaharlal Nehru Technological University Hyderabad. A structured questionnaire was randomly distributed to students who were in the first year of their undergraduate studies. These students became the frame for research. Random sampling was done without any specific demarcation. Variables such as gender, age and social background were not considered for the purpose of sampling. The sample size for this study was 240 students studying under graduation engineering and non engineering courses. The questionnaire was administered in colleges under Osmania University and Jawaharlal Nehru Technological University. Primary Data was collected first hand through class room observation, questionnaire and informal interviews with learners and teachers. Secondary data was collected from include previously collected samples of research, journals, scholarly articles, internet, books and publications etc. The questionnaire was based on the original Willing's survey. Based on the questionnaire responses, the learners were identified as possessing one of the following styles:

- Communicative
- Analytical
- Concrete
- Authority Oriented

Lickert's scale of three point rating is used to calculate the frequency of the use of learner style. Firstly the score for each option was given rating in the following order

Mostly-3

Sometimes-2

Never—1

Secondly, the number of students for each option was counted and multiplied by score given for each option. For example if 10 students selected mostly as an answer for, 5 students opted for sometimes and 2 students opted for never to a given question then as per score rating point the sum total would be 10x3+5x2+ 2x1=42. This number is divided by total number of students who answered the question thus giving average for that particular style. The over all score is calculated by dividing the averages of the styles with the total number of styles.

For example there are 4 styles under Willing's questionnaire, to obtain overall average the sum total of all the averages is divided by total number of styles. Thus an overall score is reached.SPSS analysis was used to calculate Pearson's chi square and asymptomatic significance.

RESULTS AND DISCUSSION

As per the Likert scale average (see figure1), amongst the engineering learners 2.2 percent learners are concrete learners and 2.3 percent learners are authority oriented. Nearly 2.48 percent engineering learners are analytical and 2.3 percent learners are communicative. It can be interpreted that engineering learners started with concrete style of learning and gradually moved to analytical learning.

Similarly in the non engineering stream, 2.25 percent learners are concrete learners and 2.3 percent learners are analytical. Majorly the engineering learners are authority oriented and 2.38 per cent learners are communicative. The likert scale graph for the non engineering learners depicts that the non engineering learners moved from concrete learning to authority oriented learning.

2.1 The following are the results of the research

2.1.1 Basically all learners aim to acquire English language skills in order to secure

profitable employment. Therefore second language acquisition is a vehicle for professional communication.

2.1.2 The engineering and non engineering learners view English as a career necessity. The

2.1.3 learners have no cultural or social knowledge of English.

2.1.4 Less than 25 percent of engineering learners prefer to learn language through playing games in class and only 34 percent non engineering learners prefer to learn language through playing games.

2.1.5 It was understood from the replies to the questionnaire that the learners from both the streams prefer to go out with the class and practice language skills. This coincides with the communicative learning style.

2.1.6 Learning in small groups is mostly preferred by the engineering learners.

2.1.7 An equal number of engineering and non engineering learners showed interest in learning grammar. One reason for this could be that the learners regard English as aformal language and therefore would like to learn its form and structure, especially because they are learning language for professional reasons.

2.1.8 Both the learners prefer task based learning.

2.1.9 Engineering learners prefer to read English newspaper at home to improve language skills whereas amongst the non engineering learners only a small percentage prefers to read English newspaper for improving language proficiency.

2.1.10 Non engineering learners mostly prefer to learn through visual media.

2.1.11 Engineering learners are more interested in practicing sounds and pronunciation ofEnglish language than non engineering learners. This proves the earlier findings where the engineering learners stated they practice phonetics more than any other topic during lab sessions.

2.1.12 Non engineering learners do not prefer to learn by conversation. The percentage of non engineering learners who mostly prefer to learn through conversation is lesser than the percentage of those who sometimes prefer to learn language through conversation.

2.1.13 As non engineering learners are majorly authority-oriented, they prefer want teacher's explanation to everything.

2.1.14 Engineering learners prefer to maintain their own notebook and write

2.1.15 The engineering labs are multimedia labs and the non engineering labs are broadcast labs with no option for practising speaking skills.

2.1.16 The most practiced lab activity for engineering learners is phonetics whereas the most practiced lab activity for non engineering learners is listening skills.

2.1.17 The researcher notices thatnon engineering learners do not carry a manual dictionary with them. Of the 120 sample learners the researcher found dictionary with only one learner.A small percentage of engineering learners carried a manual dictionary to the language class. However the learners from both the backgrounds had a dictionary app installed on their smart phones but it was seldom used in class.

2.1.18 The researcher noted that the engineering learners preferred English language dictionary, the non engineering learners used telugu to English translation dictionary.

2.1.19 The non engineering learners showed much interest in reading aloud to the class butthey seldom got the opportunity as reading text was done by the teacher only.

2.1.20 Comparatively, the non engineering learners got opportunity to read the lesson aloud to the class.

2.1.21 The library in non engineering colleges had negligible portion of books for language improvement, whereas the libraries in engineering colleges had very large books on practising spoken English, improving writing skills and improving vocabulary.

2.1.22The engineering college libraries had good collection of books on competitive exams such as GRE, IELTS and TOFEL.

3. Conclusion

Through the learner(s) responses it was evident that there are differences and similarities between the engineering and non engineering learners of English. In countries such as India where English is a major job requirement, the teaching

practice and learning methods should focus on equipping the learners with communication skills. The major responses which were similar to learners from both the streams related to questions such as

- I like to study grammar
- I like to learn English by talking in pairs
- I like to learn English words by doing some task

The researcher also conducted informal interview with learners and teachers and made a few classroom observations. The research revealed that neither the teachers nor the learners were aware of learning styles. This show that learners have to be made aware of learning styles for them to make optimum use of this strategy while learning.

According to Reid (1995):Learning styles are value-neutral; that is, no one style is better than others; students must be encouraged to "stretch" their learning styles so that they will be more empowered in a variety of learning situations. Teachers should allow their students to become aware of their learning strengths and weaknesses. (p ix)

Wong and David Nunan, (2011) argue that in effective L2 acquisition there are clear differences in style orientations of effective and less effective learners. They concluded that attitude towards language and learning is the key factors in SLA.

Research indicates that learning styles are deeply influenced by learners' cultural background. The social environment and cultural differences impact the assessment of learning styles. A mismatch between learning strategy and learning style of students reveal that they do not retain what they have learnt. A teaching style that complements learning style has shown better retention value of what is learnt. Also it is a good method to improve interpersonalrelationship between teacher-student. The concept of learning styles is value-neutral. It does not state which styles are good or which styles are bad. All the different learning styles are interlinked and inter-related. They all require application of multiple intelligences. Therefore learners should be made to feel comfortable and confident about their own style of learning. If learners show low esteem or poor confidence because their style of learning is not 'acceptable' by teachers or peers they would refrain from exploring further.

Appendix 1. The Questionnaire

WILLING'S LEARNING STYLES QUESTIONNAIRE

(Please mark √ in the appropriate boxes)

Q. No	Style- Concrete	MOSTLY	SOMETIMES	NEVER
1.	In class I like to learn by playing games			
2.	In class I like to learn by pictures, videos etc			
3.	I like to learn English by talking in pairs			
4.	At home I like to learn by using cassettes			
5.	In class I like to listen and use cassettes			
6.	I like to go out with the class and practice English			
7.	I like to learn English in small group			
8.	I like to learn English words by doing some task			
	Analytical			
9.	I like to study grammar			
10.	At home I like to learn by studying English books			
11.	I like to study English by myself			
12.	I like the teacher to let me find my mistakes			
13.	I l like the teacher to give us problems to work on			
14.	At home I like to learn by reading newspaper			
15.	I like to practice English sounds and pronunciation			

	Communicative			
16.	I like to learn English by watching/listening to native speakers			
17.	I like to learn by talking to friends in English			
18.	At home I like to learn by watching TV in English			
19.	I like to learn English in shops/trains/etc			
20.	I like to learn English words by hearing them			
21.	I like to learn English by conversation			
22.	I like to learn English with whole class			
23.	I like to learn English outside classroom			
	Authority-oriented			
24.	I like the teacher to explain everything to us			
25.	I want to write everything in my notebook			
26.	I like to have my on textbook			
27.	In English class I like to learn by reading			
28.	I like to learn more new words			
29.	I like to learn English words by seeing them			
30.	I like the teacher to tell me all my mistakes			

Appendix 2. Questionnaire Responses and Chi-square analysis

Concrete Style

Q1.In class I like to learn by playing games

Crosstab

Count

		Q41			
		Mostly	Never	Some times	Total
Students	Engineering	49	14	57	120
	Non Engineering	66	19	35	120
Total		115	33	92	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.531[a]	2	.014
Likelihood Ratio	8.595	2	.014
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.50.			

Q2. In class I like to learn by pictures, videos etc

Crosstab

Count

		Q42			
		Mostly	Never	Some times	Total
Students	Engineering	60	15	45	120
	Non Engineering	70	6	44	120
Total		130	21	89	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.638[a]	2	.098
Likelihood Ratio	4.766	2	.092
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.50.

Q3. I like to learn English by talking in pairs

Crosstab

Count

		Q43			Total
		Mostly	Never	Some times	
Students	Engineering	55	17	48	120
	Non Engineering	54	10	56	120
Total		109	27	104	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.439[a]	2	.295
Likelihood Ratio	2.461	2	.292
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.50.

Q4. At home I like to learn by using cassettes

Crosstab

Count

		Q44			Total
		Mostly	Never	Some times	
Students	Engineering	42	23	55	120
	Non Engineering	42	8	70	120
Total		84	31	125	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.058[a]	2	.011
Likelihood Ratio	9.376	2	.009
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.50.

Q5. In class I like to listen and use cassettes

Crosstab

Count

		Q45			
		Mostly	Never	Some times	Total
Students	Engineering	59	18	43	120
	Non Engineering	80	2	38	120
Total		139	20	81	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.281[a]	2	.000
Likelihood Ratio	18.216	2	.000
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.

Q6. I like to go out with the class and practice English

Crosstab

Count

		Q46			
		Mostly	Never	Some times	Total
Students	Engineering	40	17	63	120
	Non Engineering	46	12	62	120
Total		86	29	125	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.289[a]	2	.525
Likelihood Ratio	1.293	2	.524
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.50.

Q7. I like to learn English in small group

Crosstab

Count

		Q47			
		Mostly	Never	Some times	Total
Students	Engineering	49	28	43	120
	Non Engineering	48	30	42	120
Total		97	58	85	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.091[a]	2	.956
Likelihood Ratio	.091	2	.955
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 29.00.

Q8. I like to learn English words by doing some task

Crosstab

Count

		Q48			Total
		Mostly	Never	Some times	
Students	Engineering	49	28	43	120
	Non Engineering	48	30	42	120
Total		97	58	85	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.091[a]	2	.956
Likelihood Ratio	.091	2	.955
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 29.00.

Analytical Style

Q9**.** I like to study grammar

Crosstab

Count

		Q49			Total
		Mostly	Never	Some times	
Students	Engineering	66	20	34	120
	Non Engineering	66	14	40	120
Total		132	34	74	240

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.545[a]	2	0.462
Likelihood Ratio	1.551	2	0.460
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.00.

Q10. At home I like to learn by studying English books

Crosstab					
Count					
		Q50			
		Mostly	Never	Some times	Total
Students	Engineering	54	2	64	120
	Non Engineering	52	14	54	120
Total		106	16	118	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.885[a]	2	.007
Likelihood Ratio	11.010	2	.004
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.			

Q11.I like to study English by myself

Crosstab					
Count					
		Q51			
		Mostly	Never	Some times	Total
Students	Engineering	74	2	44	120
	Non Engineering	56	14	50	120
Total		130	16	94	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.875[a]	2	.003
Likelihood Ratio	13.008	2	.001
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.			

Q12. I like the teacher to let me find my mistakes

Crosstab					
Count					
		Q52			
		Mostly	Never	Some times	Total
Students	Engineering	82	2	36	120
	Non Engineering	58	20	42	120
Total		140	22	78	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.303[a]	2	.000
Likelihood Ratio	21.691	2	.000
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.00.			

Q13. I l like the teacher to give us problems to work on

Crosstab					
Count					
		Q53			Total
		Mostly	Never	Some times	
Students	Engineering	76	2	42	120
	Non Engineering	52	20	48	120
Total		128	22	90	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.627[a]	2	.000
Likelihood Ratio	22.022	2	.000
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.00.			

Q14. At home I like to learn by reading newspaper

Crosstab					
Count					
		Q54			Total
		Mostly	Never	Some times	
Students	Engineering	63	6	51	120
	Non Engineering	56	14	50	120
Total		119	20	101	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.622[a]	2	.164
Likelihood Ratio	3.713	2	.156
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.			

Q15. I like to practice English sounds and pronunciation

Crosstab					
Count					
		Q55			
		Mostly	Never	Some times	Total
Students	Engineering	80	8	32	120
	Non Engineering	61	16	43	120
Total		141	24	75	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.840[a]	2	.033
Likelihood Ratio	6.906	2	.032
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.00.			

Communicative Style

Q16. I like to learn English by watching/listening to native speakers

Crosstab					
Count					
		Q56			
		Mostly	Never	Some times	Total
Students	Engineering	41	30	49	120
	Non Engineering	28	26	66	120
Total		69	56	115	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.248[a]	2	.073
Likelihood Ratio	5.272	2	.072
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.00.			

Q17. I like to learn by talking to friends in English

Crosstab					
Count					
		Q57			
		Mostly	Never	Some times	Total
Students	Engineering	55	17	48	120
	Non Engineering	54	10	56	120
Total		109	27	104	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.439[a]	2	.295
Likelihood Ratio	2.461	2	.292
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.50.			

Q18. At home I like to learn by watching TV in English

Crosstab					
Count					
		Q58			Total
		Mostly	Never	Some times	
Students	Engineering	52	17	51	120
	Non Engineering	54	12	54	120
Total		106	29	105	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.986[a]	2	.611
Likelihood Ratio	.990	2	.610
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.50.			

Q19. I like to learn English in shops/trains/etc.

Crosstab					
Count					
		Q59			Total
		Mostly	Never	Some times	
Students	Engineering	61	16	43	120
	Non Engineering	80	8	32	120
Total		141	24	75	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.840[a]	2	.033
Likelihood Ratio	6.906	2	.032
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.00.			

Q20. I like to learn English words by hearing them

Crosstab					
Count					
		Q60			
		Mostly	Never	Some times	Total
Students	Engineering	55	20	45	120
	Non Engineering	60	0	60	120
Total		115	20	105	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.360[a]	2	.000
Likelihood Ratio	30.094	2	.000
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.			

Q21. I like to learn English by conversation

Crosstab					
Count					
		Q61			
		Mostly	Never	Some times	Total
Students	Engineering	44	29	47	120
	Non Engineering	54	14	52	120
Total		98	43	99	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.505[a]	2	.039
Likelihood Ratio	6.619	2	.037
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.50.			

Q22. I like to learn English with whole class

Crosstab					
Count					
		Q62			
		Mostly	Never	Some times	Total
Students	Engineering	40	17	63	120
	Non Engineering	46	12	62	120
Total		86	29	125	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.289[a]	2	.525
Likelihood Ratio	1.293	2	.524
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.50.			

Q23. I like to learn English outside classroom

Crosstab					
Count					
		Q63			
		Mostly	Never	Some times	Total
Students	Engineering	56	14	50	120
	Non Engineering	64	6	50	120
Total		120	20	100	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.733[a]	2	.155
Likelihood Ratio	3.825	2	.148
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.			

Authority-oriented

Q24. I like the teacher to explain everything to us

Crosstab

Count

		Q64			
		Mostly	Never	Some times	Total
Students	Engineering	65	16	39	120
	Non Engineering	62	14	44	120
Total		127	30	83	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.505[a]	2	.777
Likelihood Ratio	.506	2	.777
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.00.			

Q25. I want to write everything in my notebook

Crosstab					
Count					
		Q65			
		Mostly	Never	Some times	Total
Students	Engineering	56	14	50	120
	Non Engineering	64	6	50	120
Total		120	20	100	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.733[a]	2	.155
Likelihood Ratio	3.825	2	.148
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.			

Q26. I like to have my on textbook

Crosstab

Count

		Q66			
		Mostly	Never	Some times	Total
Students	Engineering	56	14	50	120
	Non Engineering	74	2	44	120
Total		130	16	94	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.875[a]	2	.003
Likelihood Ratio	13.008	2	.001
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.			

Q27. In English class I like to learn by reading

Crosstab					
Count					
		Q67			
		Mostly	Never	Some times	Total
Students	Engineeringring	52	14	54	120
	Non Engineering	54	2	64	120
Total		106	16	118	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.885[a]	2	.007
Likelihood Ratio	11.010	2	.004
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.			

Q28.I like to learn more new words

Crosstab

Count

		Q68			Total
		Mostly	Never	Some times	
Students	Engineeringring	70	16	34	120
	Non Engineering	86	4	30	120
Total		156	20	64	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.091[a]	2	.011
Likelihood Ratio	9.604	2	.008
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.00.			

Q29. I like to learn English words by seeing them

Crosstab					
Count					
		Q69			Total
		Mostly	Never	Some times	
Students	Engineeringring	46	16	58	120
	Non Engineering	68	6	46	120
Total		114	22	104	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.176[a]	2	.006
Likelihood Ratio	10.377	2	.006
N of Valid Cases	240		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.00.			

Q30. I like the teacher to tell me all my mistakes

Crosstab					
Count					
		Q70			
		Mostly	Never	Some times	Total
Students	Engineeringring	72	15	33	120
	Non Engineering	78	4	38	120
Total		150	19	71	240

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.961[a]	2	.031
Likelihood Ratio	7.375	2	.025
N of Valid Cases	240		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.50.

Table1: Statistical Analysis Table for concrete style

	Engineering			Non Engineering		
	Mean	SD	Variance	Mean	SD	Variance
Mostly	49.87	7.45	55.5	51.12	12.7	162
Sometimes	50.12	7.27	52.9	45.6	6.09	37.1
Never	20	5.6	31.4	19	7.3	54.3

Table2.Statistical Table for Communicative Style

	Engineering			Non Engineering		
	Mean	SD	Variance	Mean	SD	Variance
Mostly	58.75	12.9	167.9	55	14.85	220.5
Sometimes	48	10.3	106.2	54	10.36	107.4
Never	13.25	10.74	115.3	20	25.3	642.28

Table3. Analytical Style

	Engineering			Non Engineering		
	Mean	SD	Variance	Mean	SD	Variance
Mostly	70.4	9.99	99.8	57.28	4.99	24.9
Sometimes	43.1	11.12	123.8	46.7	5.1	26.23
Never	6	6.63	44	16	2.82	8

Table4. Authority-Oriented Style

	Engineering			Non Engineering		
	Mean	SD	Variance	Mean	SD	Variance
Mostly	59.5	9.68	93.28	69.4	10.7	115.61
Sometimes	42.5	8.56	73.28	45.14	10.51	110.4
Never	15	1	1	5.4	4.11	16.95

Table5. Likert scale overall average per style

Style	Engineering	Non Engineering
Concrete	2.2	2.25
Analytical	2.48	2.3
Communicative	2.38	2.38
Authority-oriented	2.3	2.52

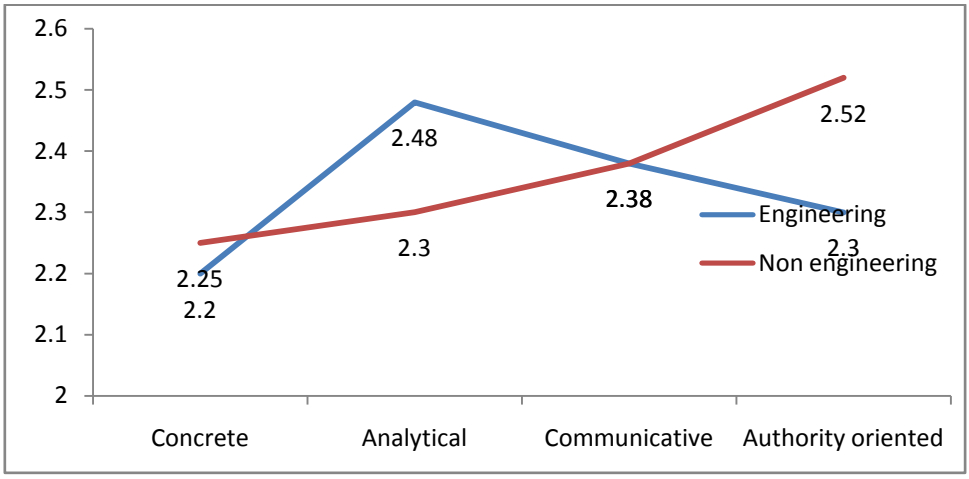

Figure1 Likert Scale overall average per style

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