Research Paper

Meta-Cognitive Approach to Students Academically Requiring Special Attention in Communication

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ABSTRACT

Objective and Aim: *To identify the students academically requiring special attention (SARSA) in communication skills and to take necessary steps to enhance their English communication skills To promote the receptive and participative skills of SARSA- the target audience, in all the courses they are undertaking*

Method: *A total number of 58 students were identified as requiring special attention in communication (both verbal and written) through various processes. The processes that were used to identify the SARSA are*
1. Intermediate Marks & Medium and Board of study
2. Diagnostic Test
3. Test 1 – English, Physics & Chemistry
4. Personal Interview
A short term course based on meta-cognitive method was developed to improve the communication skills level of the SARSA. The course module consisted of the exercises based on jumbled words, jumbled sentences, concord, cloze reading, short audio clips (2-3 mins) on technical topics, videos, short stories, questions and topics for presentations, posture presentations and group discussions. The course was planned for 20 sessions. Facilitators from the department of English installed the basic grammar structure and strategies to listen, speak, read and write in students through lectures and various activities. Students attempted varied exercises. They listened, observed and interpreted audio clips and videos. They read a few short stories and narrated the stories in the sessions, participated in questioning and answering sessions, presentations, posture presentations and group discussions. Various components were used to analyze their progress. The components were

Analysis 1
a.   Diagnostic Test – 1 (Reading, Speaking & Writing)   b. Mid - Course-Test (Speaking & Writing)
b.   Post –Course - Test- (Reading, Speaking & Writing)   d. SARSA Attendance
Analysis 2 -*All the English test components. Eg. Test-1, Test -2, Comprehensive- Test, Lab Test, etc.*
Analysis 3
a.   Physics - PHY A101 – Average of Test 1 & Pre-comprehensive Test total
b.   Chemistry - CHE A101 - Average of Test 1 & Pre-comprehensive Test total
c.   Engineering Graphics - EG A101 - Average of Test 1 & Pre-comprehensive Test total
Their individual performance was also analyzed. The analysis and results are discussed in detail in the articles.
Keywords: *SARSA, Meta Cognitive Method, Assessments, Analysis*

I.   INTRODUCTION

Presidency University, Bengaluru, is one among the few prestigious universities which pay attention to the growth of the students who academically require special attention too. Realizing the necessity of helping the students academically require special attention (SARSA) in communication, it has initiated the SARSA Program for the first semester students. 58 students were identified as requiring special attention in communication development. The identification process of these students was done through Diagnostic Test (reading, speaking and writing) by English Faculty Members, Test – 1 result in English, Physics and Chemistry, personal interview, Psychometric Test by the faculty members and key officials and the background (medium and board of study) analysis. Table - 1 reflects various boards where the identified students had done their schooling.

CBSC	Kerala	Karnataka	AndraPredesh	Telangana	Goa	Emirates	Rajasthan	Bihar	Maharashtra	Jammu and Kashmir
2	19	16	11	4	1	1	1	1	1	1

Table:1- SARSAs Board of Studies

II. DESCRIPTION

Four batches were formed distributing the identified average and below average students equally. Boards where the students did their secondary and higher education were also taken into consideration for forming batches. English faculty members, Dr. Soumen Mukherje, Prof. Krishna Prabha, Dr. Ravi Kumar and Dr. Edwin Jeevaraj took charge of facilitating a batch each. The University started SARSA program from 27.10.2015. Students were trained weekly four days (Monday, Tuesday, Thursday & Friday) basis during 4.00 pm to 4.50pm. This short term program was closely monitored by CEO and Dean – School of Engineering by reviewing the students' progress and faculty members' involvement. They appreciated the progress and provided suggestions where they found scope for more improvements. Facilitators contributed their best in a friendly way to develop the students' communications skills. Realizing the importance of communication, students participated throughout the program with interest and enthusiasm. Only a few students were not able to attend the program regularly due to some reasons (eg. Distance between university and residence, health issues, etc.). University offered all the demands (handouts, books, material, projectors, transportation facility, lab facility and other requirement) of the faculty members and students for the successful completion of the program.

Meta-Cognitive method was used during the entire process of the training. Exercises related to instilling the sentence structure, basic grammar and tongue twisters, participating in questioning and answering sessions, reading and narrating short stories, listening, observing and interpreting short audios and videos contents, presenting thoughts and observations without fear and shyness in front of a group and participating in discussions boldly were given during the training sessions. This yielded progress in students' performance and created confidence among the students. The progress of the students' performance is explained clearly in the analysis section.

III. ANALYSIS

A number of evaluation parameters (Ref. II para in Method) were taken into consideration in order to justify the progress of the SARSA's performance. These evaluation parameters were grouped under four levels. They are SARSA's Performance in SARSA Program, SARSA's Performance in ENG A101, SARSA's Performance in a few theory based courses of the first semester B.Tech programs, and SARSA's Individual Performance. The progress analysis is discussed below.

SARSA's Performance in SARSA Program

During the SARSA program, three tests were conducted to evaluate the progress of the SARSA's performance. Initially, Diagnostic Test was conducted for 505 students. Students' abilities to speak, read and write were tested. This primary test helped to short list 58 students who are in need of special attention in communication development. Other two tests, one based on speaking and writing during the middle of the program and another based on speaking, reading and writing at the end of the program were conducted. Tests were evaluated judiciously by the faculty members of English department. CEO also evaluated the students' performance in the test conducted during the middle of the course. Test marks were recorded and the average of each test was calculated. The average was converted to 10 points for easy analysis. This is applicable for all the evaluation phenomena. Chart 1 clearly indicates the average mark of each test.

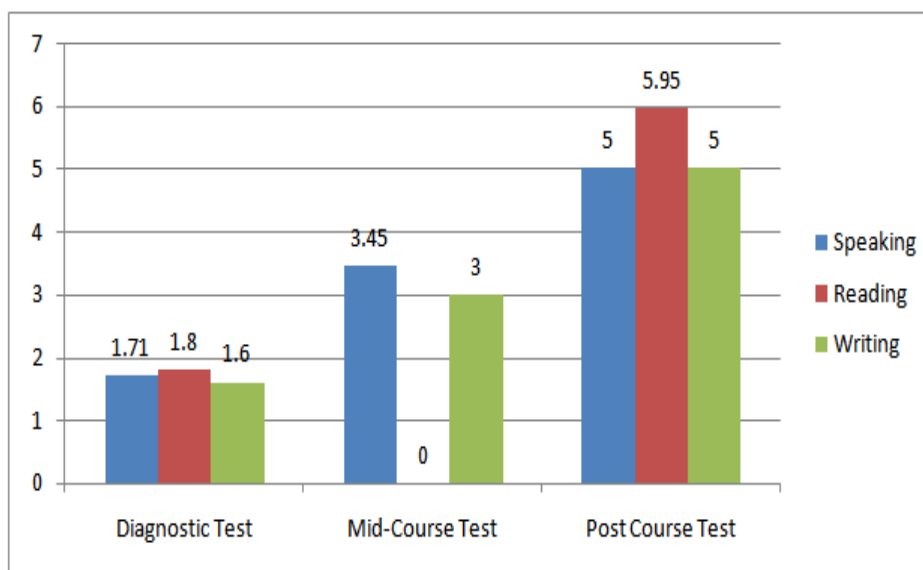Chart 1 – SARSA's Performance in SARSA Program

Chart-1 shows that average in speaking is 1.71 in Diagnostic Test, 3.45 in Mid-Course-Test and 5 in Post Course Test. It indicates that the students' average in reading is 1.8 in Diagnostic Test and 5.95 in Post-Course-Test. Students' average in reading is 0 in the mid-course-test because this test was conducted only on the basis of speaking and writing. Chart 1 also indicates that students' average test score in writing is 1.6 in Diagnostic Test, 3 in mid-course-test and 5 in Post-Course-Test. Thus, Chart 1 reflects clear indication of students' gradual growth in speaking, reading and writing.

SARSA's Performance in ENG A101

SARSA's performance in English Test was also analyzed. Total average of their performance in English Test – 1, Test-2, Quiz, and Post Comprehensive marks was calculated. It was converted to ten points scale and a comparative study was done. Questions for each test were framed based on the English course plan. Basic grammar, formal letter writing, presentation strategies, etc., were considered for question preparation. Questions were prepared and evaluated by the faculty members from the department of English. Chart 2 indicates the progress of SARSA's performance from Test-1 to final comprehensive test and Lab test. Their average is increased from 2.9 to 3.7, 4.14, 5.0 and 5.5.
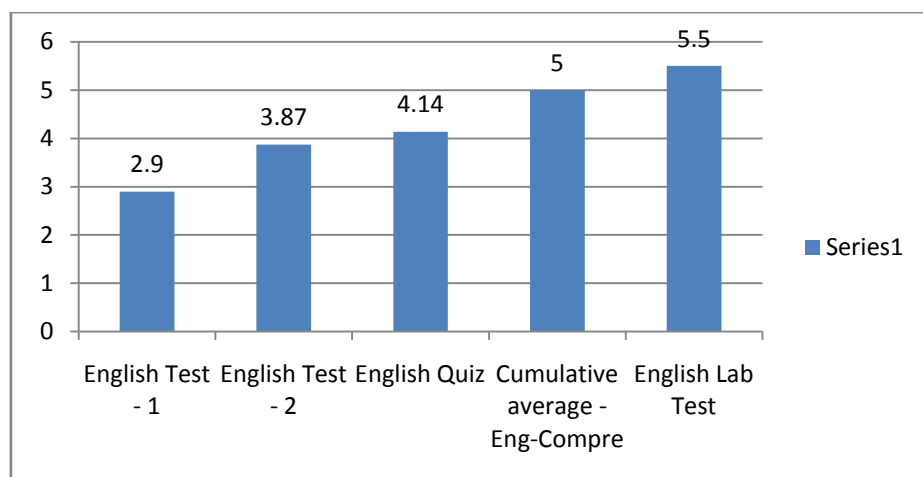

Chart– 2   - SARSA's Performance in ENG A10

SARSA's Performance in the Basic Courses

University offers the other basic courses such as Physics, Chemistry, Mathematics, etc., for the first year B.Tech. students in the first semester other than English. In order to analyze the impact of SARSA program, SARSA's performance in other courses were also studied. Average of Test 1 and the pre-comprehensive-test-total of the above mentioned courses, was calculated. Chart-3 shows the result. This bar

chart indicates that the progress in Physics is from 1.4 to 2.3, in Biology from 1.5 to 2.0, in mathematics from 1.4 to 2, in Engineering Graphics from 2.7 to 3.41 and in Probability and Statistics from 1.5 to 1.6.

Chart 3 – SARSA's Performance in the basic courses
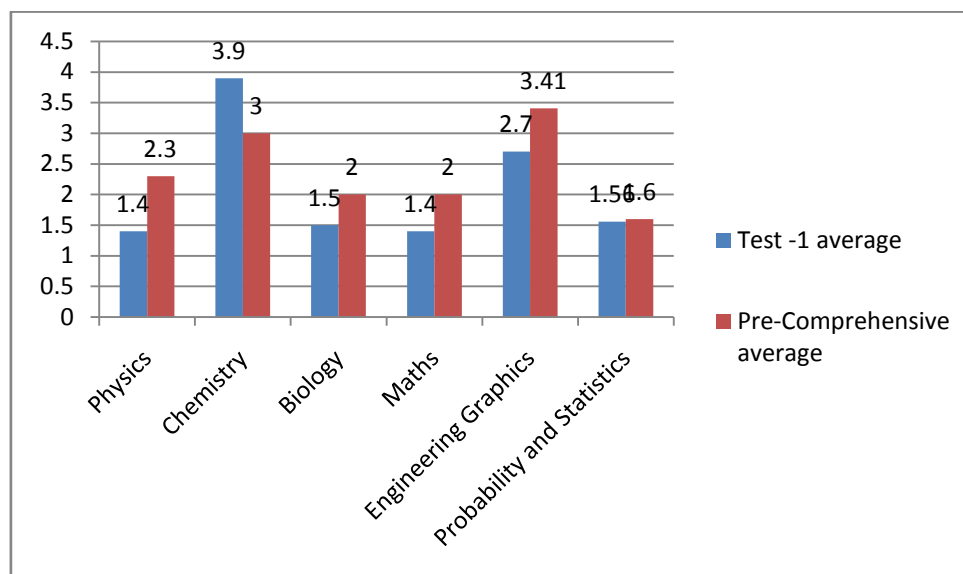
SARSA's Individual Performance

Finally, a comparative study was done on the total of each student's performance in Diagnostic Test and Post SARSA program and Post Comprehensive Total. The comparative study proves that no student's Post SARSA Program test total is less than his Diagnostic Test total. In the Diagnostic Test, 9 students scored 4 out of 30. 30 students scored between 5 and 8, 12 students scored 9 and 10 and 11 students scored between 11 and 12. But the in Post SARSA Program Test, only 2 students scored between 9 and 10 out of 30. 9 students scored between 12 and 15, 36 students scored between 15 and 20 and 9 students scored between 21 and 25. At the same time, Post comprehensive total marks in English for 9 students are above 120 out of 200. It is between 100 and 119 for 24 students, between 90 and 98 for 12 students, between 80 and 88 for 4 students and between 48 and 78 for nine students.

This study also indicates that there is a slow and gradual change in few students and a terrific and visible change in few others. The students, whose progress is slow and a gradual is listed out in Table – 2 and the students whose progress is noticeable is listed out in Table – 3.

Table -2 List of Students whose progress is average

S. No.	Id No.	Name	Program	Diagnostic Total	Post SARSA - Total	Post -Compre- Test Total	Attendance %
1	2015PEE127	Abdulla Farid Abdullah Almuradi	B.Tech. PEE	5.5	9	49	50
2	2015CSE088	Nanda Kumar Reddy R.	B.Tech. CSE	5	16	58	31
3	2015PEE111	Sidharth G.S.	B.Tech. PEE	5.5	13	68	81
4	2015PEE125	Dilshad C.P.	B.Tech. PEE	4	10	70	50
5	2015MEE080	Ram Parvesh Kumar	B.Tech. ME	4	15	71	88
6	2015EEE010	Abdul Basith	B.Tech. EEE	4	17	73	38
7	2015CVE033	Melavoi Ravi Nandan	B.Tech. CVE	4	0	77	56
8	2015PEE100	Sahal Abdul Kareem	B.Tech. PEE	7	14	77	75
9	2015PEE027	Ansal M.	B.Tech. PEE	6	17	78	56
10	2015PEE083	Muhammed Rashid M.	B.Tech. PEE	6	14	80	31
11	2015PEE128	Sif Arath	B.Tech. PEE	7.5	16	83	31

S. No.	Id No.	Name	Program	Diagnostic Total	Post SARSA - Total	Post - Compre-Test Total	Attendance
1	2015PEE035	Arun Mathew James	B.Tech. PEE	7	20	130	69
2	2015MEE002	Adarsh Ganesh Hegde	B.Tech. MEE	4	18	133	63
3	2015PEE082	MuhammedNahas N.	B.Tech. PEE	10	21	135	94

Table -3 List of Students whose progress is notable

Being regular, being irregular and being regularly irregular are the basic reasons for the rise and fall of the fluctuations in their performance. The students whose performance is noticeable are not aware the skills or abilities embedded in them and in fact an intervention of a faculty was required.

IV.   Conclusions

This SARSA progress analysis report reflects many conclusions. Few important conclusions are as follows. Average of test-1 of all the courses proves that the university has adopted the most suitable and the best method to identify and monitor the SARSA in communication. Diagnostic Test, Mid-course-test and Post-Course-Test proves that there is gradual progress in students' ability in reading, speaking and writing. Improvement in their performance in English Test 1, Test 2, English Quiz, Post Comprehensive Total and Sample Lab Test evidences that the SARSA program has an impact in the academic courses too. The comparative analysis of test 1 average of Physics, Mathematics, Biology, Engineering Graphics, and Probability and Statistics and pre-comprehensive total average of all these courses support the above said conclusion. The comparative study on the total of each student's performance in Diagnostic Test and Post SARSA program and Post Comprehensive Total also points out the progress in their performance. It is to be noted that SARSA program helped to instill the confidence and boost morale of the students to a great extent. However, it was highly rewarding experience for all the faculty members of English.

Acknowledgement