Chapter 5
Conclusion

This chapter presents the conclusions drawn from the study. At the outset we would like to say that the finding indicate the acceptance of the null hypothesis that

- The present courses in English at the undergraduate level in sciences are not up to the mark.
- Students and sciences need to use English as a library language and they also need other skills like inter-personal and study skills like note taking, note making, scanning, skimming etc.

There are no second thoughts about the opinion that learners at the undergraduate level at the sciences need English as an effective tool not only to gather information but also for day to day use. We need to remember that language has a communicative function in the ordinary day to day use, but it also has a cultural function which is reflected in its literature. Awareness about culture along with that of language that is its product helps learners to become effective users of that language. So training in the effective use of language is necessary in the highly organized social structure that exists today where the kinds of situations requiring communication are becoming more and more complex.
Language is used as a tool of communication, and handling of any tool requires a certain skill. When we say that someone is a good user of language we mean that he/she is able to use language effectively for all his/her communicative needs, in all kinds of situations. It cannot be said that all materials and methods labelled as communicative do in fact meet the learners' needs for communicative language use. What language teachers today need, then, is more than a readymade method of teaching, and appreciation both of language as an expression of self and of the ways in which meanings are created and negotiated. They need to see the learner as a physical, psychological, and intellectual being with needs and interests that extend far beyond the classroom. (Savinton 1987)

The present courses do not meet the needs of the learners. They also do not improve their communicative abilities, and this hinders their progress in sciences as well. Here is a quote from a letter written to the editor of Current Science, "... facility of expression and precision of language are essential for a good scientist to evolve. 90% of the social sciences and 60% of the natural sciences are only expressions with logic and reason, descriptions of facts and figures and interpretations of numerical and quantitative results, which need exact terminology. Theorems, principles, hypotheses and conclusions of Ph.D. theses or research publications are all developed with concretization of language and crystallization of
thought. The universality of science is achieved through the simple aspect of precision and pristine nature facilitated by English language due to historical reasons. Rich language base is a fertile ground for creativity to sprout. Power of expression permeates critical analysis. Needless to say that science is rooted in creativity and critical observation. Relevant English expression is the heart and soul of the scientific writing, and not a decoration of the latter as misconceived by some.” (Rao 2005)

In our educational setup English primarily serves the purpose of a library language though one would also want it to play the role of an effective communicative tool. We are sure that almost all want it to play such a role. However, the facts indicate otherwise. The English compulsory courses in the sciences in the universities of Gujarat have been found wanting on most counts. A look at the question papers seem to suggest that the question sets focus on the testing of reading and writing and also rules of grammar. This means English is taught for academic purposes, ie. English required for study purposes in a formal educational system. While talking about EAP McArthur (Ed) (1992) states that EAP is English taught to foreign learners who intend to follow courses of higher education in English. He says that instruction and practice is provided to students on EAP courses in the following functions:
(1) Comprehending lectures
(2) Taking notes and/or making notes
(3) Participating in seminars
(4) Using libraries and research facilities
(5) Writing essays and dissertations
(6) Engaging in computing and word processing.

The above mentioned functions are required by our students as well. It means we have to prepare a syllabus accordingly and give training to teachers to teach learners and to learn all those aspects of language, paralanguage etc that do not form a part of the syllabi now. It would be a good idea to have a look at the linguistic features of scientific writing

(1) Passive Voice: used to depersonalize texts. Also used to focus attention on the grammatical subject (Swales 1971)

(2) Present simple: used to describe the sequence, processes and cycles and also used to state general truths.

(3) Past tense and present perfect: Used to refer to previous research and imply the relevance to present research by an appropriate choice between these tenses. (Selinker, Vroman, Trimble 1974).

(4) Complex subjects and simple verb forms: In contrast with conversational and literary English, the verb form in scientific
English is usually simple whereas the subject is often complex. (Swales 1971).

(5) Modal verbs: Use the widely in scientific texts in particular, to make predictions (Joos 1964, Ehrman 1966).

(6) The Greek and Latin words and affixes: Many of them from these two languages are used to form words used in the sciences. (Walsh 1982)

In her article ‘A Scientific Reading Programme’ Arunee Wiriyachitra says that scientific texts are saturated with ideas. So a reader must be able to co-ordinate a number of the skills. The author focuses on four different aspects of reading, scanning, skimming, comprehensive reading and critical reading. Let us look at these in a little more detail:

(1) Skimming: It involves reading quickly and selectively in order to get a general idea of the material. There are three aspects of skimming. They are:

(a) Previewing: this helps in finding out whether the text is written by specialists and whether the texts contain information the readers are seeking.

(b) Over viewing: this helps the readers to discover the purpose and scope of the material.
(c) Surveying: it helps the reader to get the general idea of what the material contains

(2) Scanning: it helps the learners search quickly for the special information such as finding the heading under which the required information appears, finding statistical information in Tables, charts or graphs, and finding the answers to a certain questions from a text.

The student must also be taught

(a) Vocabulary recognition

(b) Sentence comprehension by using techniques such as sentence analysis, recognition of punctuation, recognition of reference terms and recognition of signal words.

(c) Paragraph Analysis: This includes finding the topic, finding the main idea, finding major supporting details, and finding minor supporting details.

(d) Interpreting illustrations

(e) Critical reading: To be able to do that, the learners man must be taught to examine the reliability of the material, distinguish facts from opinions, and draw appropriate inferences from the text. Apart from these reading skills the learners must also be taught note taking: This can be taught by teaching them to record key points, reducing language content and organizing their notes. (Wiriyachitra 1982)
All these have to be a part of the syllabus for the sciences but the present courses are of a very general nature. They do not address any of these needs or skills. From the data that we have collected from the students and teachers of English we have found out that learners wish to be taught all the skills in English language and those related to it with special attention on speaking and general proficiency. They say that they feel inadequate in situations if they cannot express themselves through speech. Good oral expression creates a good first impression and it generates/builds confidence. The respondents feel that they are often (mis)judged by their inability to speak fluently in given situations. And in recent times, there has been talk of ESP courses for specific group of learners. We need to remember, however, that ESP courses run the risk of being over specific. On the other hand, general English courses (which our English compulsory courses are) run the risk of being too general. In spite of this most learners find even the most basic tasks in English challenging.

The ESP courses can be successful if and only if the learners have a firm grounding in their basic language skills. The students cannot be totally blamed for their inadequacies in English language. Many of the students that we find today in the English compulsory class started learning
English much later as compared to students of English medium schools. So there is a vast difference in their language abilities.

When one thinks of the number functions a student has to perform in English, it is without doubt an uphill task for most of the students. Moreover, in most homes the atmosphere is not conducive to learning English. Learners can be blamed only on one count—what learners do not do. Though the students realize that English is important for their career, they are not able to motivate themselves to put extra efforts, and give time to study the English course, leave alone doing any extra reading.

The institutions may not be able to provide more time and resources, but in a media-governed world, students cannot complain of not having enough resources. The fact that the marks scored in English are not considered in the overall merit also does not motivate them to work at the prescribed text seriously. They know that they can get away simply by reading the readily available guides. Thus they cannot process any language, for the amount of language they processed is negligible. Here we should remember that our English compulsory classes are mixed ability group, where there is a vast and marked variation in language competencies of the learners. The learners especially the ones who are
weak in English find it very difficult to comprehend lectures and the textbooks, which, in most cases are literary pieces.

The learners resort to the bazaar notes as an alternative. By becoming mentally dependent on such ‘guides’, the learners fail to attempt in following simple procedures like listening in classes, carefully noting down important points, underlining difficult words, phrases etc. They know that they can afford not to listen to the teacher because they have a ‘guide’ which gives them readymade answers.

We do not discount the fact that quite a few learners find the courses/stories/articles uninteresting and often inaccessible. They may also find the lecture method quite monotonous, though this seems to be the most easily understood and popular method. Our gut feeling is that one of the reasons is ‘passive’ listening. Many learners seem to accept that they can afford to be passive listeners, and do not have to endure the ‘torture’ of actually trying to read the text in English.

To change this unhappy situation what we need to do is, we need to have materials/textbooks that are more learners-centered. This will ensure that the learners process more language, and in doing so, they would get more exposure to the target language. This can only happen if the textbooks are based on activities or tasks.
We believe that the materials should consist of a main course book, which should have interesting stories, articles of general interest and/or articles from scientific journals. We recommend stories because good stories have a universal appeal and articles from science journals would be a bit too challenging for the first year students. Moreover, it is believed these days that literature is good for science students too. It is an undeniable fact that literature makes us familiar with a culture which is the springboard of a language. It also takes care of the emotional development of the learners and at the same time develops their personality. Along with the main course book, an activity based workbook can be prescribed which will focus on the essential grammar points and other general and specific language skills.

The data that we collected from the learners and teachers points out that more black board work and audio visual aids enhance and accelerate language learning. Audio-visual techniques need to be incorporated in the teaching methodology.

The fact is that all four skills should be given appropriate weighting with appropriate levels of complexity and pace. In the first year we should aim at revising and strengthening the learners’ basic knowledge of
language and gradually move towards a more specialized course in the second and third years of the degree course.

For the success of the programme, the aims and objectives, course content, materials, methodology and evaluation should be interrelated. The opposite is happening in most of the science colleges here. The aim of the courses seems to be communication but the materials, the methodology and examination do not reflect this.

For the kind of materials that we recommend, we need teachers to act as facilitators. Moreover, the evaluation system should be based on language skills. Only 20% weighting should be given to the text. The idea is to reduce the learners' dependence on the bazaar notes. So, most of the questions would have to be unseen. This way the learners would be forced to process the tasks in the workbook to be acquainted with the pattern.

The teachers in a given university, keeping in mind the aims and objectives, and the level of the students, can prepare such course books. By getting the teachers to design textbooks for their students, we can ensure more teacher participation in the curriculum process.
Recommendations

Keeping the above things in mind we make the following recommendations:

General objectives:

Unless the correct objective is known it is difficult to find out the best method. We need to know more about how people learn languages but the success of the students’ learning depends on what they themselves do in the classroom. The teacher has to provide linguistic experiences for them, for it is the nature of that experience that what they learn depends. It is the manner in which the teacher manipulates the classroom language experience that sets the upper limit on the learners’ achievement. As a rough guide, it can be said that the students’ ultimate repertoire of skills in a language will reflect the proportion of time spent on different language activities. However, more time is probably needed to be spent on productive skills than on the receptive skills if an equivalent level of proficiency is to be reached. It merely reflects the fact that comprehension of language outstrips productive capacity. (Wilkins 1979)

We need to focus on language skills so that by the end of their university studies, the students are able to
1. Read and comprehend texts English which are of general nature and also that are relevant to their needs.

2. Communicate in both spoken and written form with a reasonable degree of accuracy on topics of their choice.

Specific objectives:

A) To help them understand English spoken by others not necessarily native speakers.

B) To help them understand materials having technical and general register.

C) To train them to perform various language functions in formal or informal setting.

D) To train them to write for various purposes.

E) To train them in using study skills specially taking notes and making notes from lectures, books etc.

Course content (F. Y. B.Sc.)

- Familiarity with the parts of speech, word formation, collocation and correct usage

- Vocabulary for everyday speech

- Deriving meaning from sentences and longer texts

- Understanding the main point and sub-point in a piece of discourse.
• Conveying relations within the sentence viz. elements of sentence structure, modal auxiliaries and negation.

• Expressing relation between parts of a text through lexical cohesive devices like lexical sets, collation etc.

• Expressing relations between parts of a text through grammatical cohesive devices: comparison, substitution, and ellipses...

• Expressing relations in a text through grammatical cohesive devices like reference, time and place matters and logical matters.

• Using discourse indicators for introducing an idea, developing it, making a transition to go to another idea and concluding it.

• Expressing conceptual meaning including result, purpose, condition and her contrast.

• Some basic notions and functions

Course content (S. Y. B.Sc.)

• Inferring facts from the context of the relevant texts.

• Identifying the arguments highlighting different viewpoints.

• Taking notes and making notes from different discourses.

• Using discourse indicators to emphasize a point, to indicate the main piece of information, to highlight the supporting piece of information.
• Conceptual meaning through quantity and amount, comparison and degree.
• Expressing ideas through notes, summaries and outlines.
• Writing reports using data from charts/ graphs etc.

Course content (T. Y. B.Sc.)

• Description of processes, discussion of change, description of phenomena.
• Reorganizing lexes and structures in direction, definition and register based reports.
• Expressing views, opinions, giving ideas, suggestions etc.
• Expressing ideas in narrative report, descriptive report, and report on a topic in one’s area of specialization.
• Familiarity with used idioms.

(Adapted from Khan1993)

Materials

• As mentioned earlier, the need of the hour is to have materials/text of books that are more learner-centered.
• The materials should consist of a textbook as the main course book, and workbooks.
- The textbook should have interesting stories, articles of general interest and/or articles from scientific journals.

- The workbook should have various activities and tasks keeping in mind the objectives of the course. Such a workbook will ensure that the learners process more language and get more exposure to the target language. The workbook, which would be activity-based, can also be used to focus on the essential grammar points and specific language skills.

- Teachers teaching the courses should preferably prepare the materials.

- Sources like magazines, newspapers, journals, should be extensively used in preparing the materials.

- The materials should also contain maps, charts, figures etc.

- Relevant and suitable language material on audio cassettes and these CDs should be a part of the materials.

- The relevant reference books on English language and good dictionaries should also be made available to learners.

Methodology

- The classroom practitioners must ensure limited use of mother tongue. In fact it has to be used as sparingly as possible.
- The work in the class should be as learners-centered as possible, where the role of the teacher is that of facilitator.

- Teaching and learning should aim at the learners processing as much language as possible.

- The methodology should aim at bringing about an integrated development of all the basic language skills, and other study skills, and social and interpersonal skills.

- The students should be divided into batches of twenty each, and time to set aside for tutorials/practicals every week.

**Evaluation**

For the success of the programme the aims and objectives, the course content, materials, methodology and evaluation should be interrelated.

Without sounding presumptuous we would like to say that quite a few teachers of English are not familiar with the current trends and terms in ELT as most of them have not had training in English Language Teaching. To make sure that justice is done to the communicative courses, teachers of English should be given extensive training to handle such courses. This has been done at the All-India Level when the CBSC, New Delhi introduced new course books in English for class IX and X Kendriya Vidyalayas and Navodaya Vidyalayas. The results are for all to
see. Training could be imparted through workshops held regularly under the guidance of ELT experts. Such training sessions will help the teachers to hone their teaching skills and methods, and move towards being the facilitator in a communicative classroom. This is necessary because teachers themselves have admitted that they have found that the methods that they used in the classroom are only partially effective. We take this to imply that the methods that the teachers employ may not be suitable to learners.

At the end of the year, the learners should be given a feedback sheet where they can give their opinion on the content, the difficulty level of the course, the methodology used by the teachers, the evaluation, the expectations met by the course and the effectiveness of the strategies used. This data can be used to bring about relevant changes, modifications and additions to the syllabus to improve the whole teaching learning process.

Finally there has to be a policy of the institutions to take into account the marks scored in English compulsory for decision on the overall result. Otherwise it is not possible to motivate a majority of learners to take English compulsory courses seriously.
Works Cited


