

**International Journal of Innovative Research in Science, Engineering and Technology***An ISO 3297: 2007 Certified Organization, Volume3, Special Issue 6, February 2014***National Conference on Emerging Technology and Applied Sciences-2014 (NCETAS 2014)****On 15<sup>th</sup> to 16<sup>th</sup> February, Organized by****Modern Institute of Engineering and Technology, Bandel, Hooghly 712123, West Bengal, India.**

# Professional Development- How Does English Language Matter?

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**ABSTRACT:** In spite of better recognition of multilingualism, languages in Indian classrooms exist as watertight compartments. The official curriculum hardly provides space for languages to interact. Teaching English to engineers is a delicate and demanding matter in terms of content, methods and techniques, and deciding which are appropriate for this particular area of engineering and English. That is, the aim in such an interdisciplinary course is to develop and master relevant communication and professional skills, using English as a means and a kind of mediator in shaping future engineers

## I. INTRODUCTION

Engineering graduates require an ever-increasing range of skills to maintain relevance with the global environment of the new millennium. Communication skills are a vital component of this, recognised by academia and industry alike. English language skills are also important given its widespread status across the globe as a lingua franca. Indeed, multilingual skills are considered a salient element in the make-up of the new global engineer. English for specific purposes focuses the learner's attention on the particular terminology and communication skills required in the international professional field. Communication skills development is discussed in the paper, with examples given of different methods of teaching and assessment. The impacts on communication skills development include various elements, including gender equality. A lack of sufficient communication skills serves only to undermine the image of the engineer, but this can be tackled by engaging features of emotional intelligence (EQ) in the education of engineers. EQ offers various components that can improve communication skills and emphasise a more experiential approach to learning.

## II. THE GLOBAL ENGINEER

Globalisation directly influences industry's needs; a global engineer must be able to easily cross national and cultural boundaries. This in turn directly affects engineering education. Professional development is essentially a personal journey and that one needs to work out one's personal meaning, agenda and action plan for a meaningful and sustainable professional development. This has important implications for teacher education policies, programmes and plans. Continuing Professional Development (CPD) is an emergent field which is applicable for English Language Education. Following the global trend, India too has acknowledged its importance in making professional development a reality. The last decade is viewing learning English as analogous to any other subject in professional preparation. In spite of better recognition of multilingualism, languages in Indian classrooms exist as watertight compartments. This paper advocates the need to think the role of English Language for professional Development. It argues that continuing professional development is extremely crucial because the pre-service English language education and induction training are highly inadequate. Professional Development is a personal journey and one must try to evolve one's personal meaning, agenda and action plan. Although professional development is a personal enterprise, it needs various kinds of support to evolve and thrive. Eloquence in English which leads to professional development cannot be defined, mandated and supplied externally and uniformly for all, it needs to find ways of building in help, flexibility and freedom. Since individuals have different backgrounds, interests and capabilities, vie for different kinds of goals and have different levels of motivation and support there is no consensual definition or a universal formula for learning L2 and bringing it closer to L1. With a growing awareness of the limitations of a transmissive mode of education and a one-size-fits-all approach to teacher education, teachers' active involvement is increasingly recognized as a crucial

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component of their continuous professional development (CPD). In many EFL (English as a foreign language) contexts, however, CPD is still largely built on the premise of knowledge transmission and knowledge consumption. The present study seeks to explore how EFL teachers can be made to play a more active role by participating as presenters at CPD seminars, as well as the ways in which such a mode of CPD can promote teacher learning. Using questionnaire and email interview data from 166 seminar participants and 4 teacher presenters respectively, the study shows that opportunities for teachers' knowledge sharing and production at CPD seminars can enrich teacher learning. The paper concludes that a more robust form of teachers' CPD should see teachers play a much more active role than what is usually allowed in CPD activities that are dominated by the traditional training paradigm built on knowledge consumption.

In this new millennium, people who speak English alongside other languages will outnumber those who speak it as a first language. There is also expected to be a language shift from those who speak English as foreign language where there is no local model for English) to those who speak English as a second language. This will occur as English begins to penetrate new domains, such as China, where it does not already exist as part of the e speaker's community. This has clear implications for education regarding decisions on the language of instruction, language training as well as internet course.

### Life-long Learning

A profession is classically defined as a form of work organization which includes some Tasks involving oral communication skills within the subject framework can contribute to life-long learning by aiding in the development of those skills necessary for life-long learning. central regulatory body to ensure the standard of performance of individual members; a code of conduct (also known as ethics, practice, and as standards); careful management of knowledge in relation to the expertise which constitutes the basis of the profession's activities; and control of numbers, selection and training of new entrants. Max Weber regarded professions as the paradigm form of collegiate activity, in which rational-legal power is based on representative democracy and leaders in principle are first among equals. Status, accountability, the common good, these pursuits and the criteria for a profession all point to the classical model: medicine and the law. Entry, training, knowledge, conduct, all are controlled by members who also have the power of sanction. It is this last authority which is crucial because it allows the profession itself to police its members, to strike off, or disbar, an erring member whose conduct, professional and sometimes personal, brings the profession into disrepute.

### Issues in Engineering Profession

In Ozga's Schoolwork professionalism was defined as an ideology (which could be utilized by or against professionals) and teacher professionalism was seen as a form of state control with teachers being subject to 'direct' or 'indirect rule' by the state as political, economic, social and cultural circumstances determined. Early writing on professionalism concentrated on listing and defining the features or traits of a professional group, building on the ideal-type methodology developed by Max Weber. Two classics in this functionalist tradition are Flexner's *Is Social Work a Profession?* (1915) and Carr-Saunders and Wilson's *The Professions* (1933). Whitty (2001) describes the sociological 'trait theory' of the 1950s and 1960s as an attempt to: establish what features an occupation should have in order to be termed a profession. Lists were compiled of the characteristics that any group worthy of the label 'professionals' needed to have. A typical list included such items as the use of skills based on theoretical knowledge, education and training in those skills certified by examination, a code of professional conduct oriented towards the 'public good' and a powerful professional organisation. English is now used almost exclusively as the language of science. The adoption of a de facto universal language of science has had an extraordinary effect on scientific communication: by learning a single language, scientists around the world gain access to the vast scientific literature and can communicate with other scientists anywhere in the world. However, the use of English as the universal scientific language creates distinct challenges for those who are not native speakers of English. In this editorial, we discuss how researchers, manuscript reviewers, and journal editors can help minimize these challenges, thereby levelling the playing field and fostering international scientific communication.

It is estimated that less than 15% of the world's population speaks English, with just 5% being native speakers ([http://en.wikipedia.org/wiki/English\\_language](http://en.wikipedia.org/wiki/English_language)). This extraordinary imbalance emphasizes the importance of

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recognizing and alleviating the difficulties faced by non-native speakers of English if we are to have a truly global community of scientists. For scientists whose first language is not English, writing manuscripts and grants, preparing oral presentations, and communicating directly with other scientists in English is much more challenging than it is for native speakers of English. Communicating subtle nuances, which can be done easily in one's native tongue, becomes difficult or impossible. A common complaint of non-native speakers of English is that manuscript reviewers often focus on criticizing their English, rather than looking beyond the language to evaluate the scientific results and logic of a manuscript. This makes it difficult for their manuscripts to get a fair review and, ultimately, to be accepted for publication. The fact that English is the de facto global language of science is not likely to change anytime soon. Optimizing communication among members of the international community of scientists, and thus advancing scientific progress, depends on elimination of obstacles faced by non-native speakers of the English language. This ideal can best be achieved when all members of the scientific community work together their fellow scientists from non-English-speaking countries. Native speakers of English should offer understanding, patience, and assistance when reviewing or editing manuscripts of non-native speakers of English. At the same time, non-native speakers of English must endeavour to produce manuscripts that are clearly written.

### III. IMAGE OF THE ENGINEER

Decades ago, there was a pervasive misconception about the importance of English to engineers. Engineers were thought to be people who were always technical things behind stage. Therefore, English is not playing an important part in their career. However, more and more people are holding another view that English is an indispensable part for an engineer. The change of people's view may also reveal the significant change of demand for engineering skills. Engineers need to have a good knowledge of the English language to maximize the efficiency in collaboration and quality in output. With the background of globalization, high chances are a project team would have engineers from different approaches to a same problem. Only by communicating effectively, collisions and misunderstanding would be minimized with inspirations created. In order to master the engineering knowledge and skills better, engineering students should own the English language competence. Most of the scientific papers or journals in the world are written in English. Most of the engineering graphs are also marked in English. Moreover, most engineering professors in various universities are also conducting their lectures in English. Hence, engineering students should at least master the basic English ability to deal with the countless English lectures, tutorials, labs, projects and papers. Finally, they have to submit their important theses, still in English. When engineering students graduate from the college and become real engineers, they will find that English appears even more crucial than it used to be. Engineers usually work in groups since their task can seldom be solved by an individual. The property of their work determines that being an engineer needs to cooperate and communicate with different people from different part of the world. For non-native English speakers, unfortunately, most of the engineers speak English as the first language or the working language. In order to understand and coordinate with their colleagues and accomplish their projects fluently, engineers have to speak good English.

#### English for Specific Purposes

All in all, non-native English engineering students should try hard to improve their English ability, which could help to make both their school life and career more successful and enjoyable. One of the great attractions of engineering work is the huge variety of tasks and environments in which engineers find themselves working. From designing programs at a computer terminal, to overseeing maintenance operations for major structures like aircraft, ships, heavy earth moving equipment, mobile cranes and offshore oil platforms – there are many ways to be an engineer.

To succeed, we must do two things: (1) discover new scientific knowledge and technological potential through research and (2) drive high-end, sophisticated technology faster and better than anyone else. We must make new discoveries, innovate continually, and support the most sophisticated industries. We must also continue to bring new products and services to market faster and better than anyone else, and we must design, produce, and deliver to serve world markets. We must recognize that there are natural global flows in industry, that, the manufacture of many goods will inevitably move from country to country according to their state of development. Manufacturing may start in the United States,

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then move to Taiwan, then to Korea, and then to China or India. These mega shifts will occur faster and faster and will pose enormous challenges to our nation.

Our companies already know this, but it often seems that the public and the body politick are still largely in denial of this reality --- a very dangerous situation. If we continue to deny the realities of globalization or, worse yet, retreat into protectionism, then we won't do the very things that will enable us to lead and benefit from this brave new world.

Meeting these challenges will require an accelerated commitment to engineering research and education. Research universities and their engineering schools will have to do many things simultaneously: advance the frontiers of fundamental science and technology; advance interdisciplinary work and learning; develop a new, broad approach to engineering systems; focus on technologies that address the most important problems facing the world; and recognize the global nature of all things technological.

### IV. CONCLUSION

Despite many years of exposure to English, learners' performance in English is found highly inadequate which in turn hinders professional development. Who is responsible for this and what may be the reasons? The plausible answers to this question are expected to involve an array of diverse factors concerning teaching, learning, planning and practice of language. Language and communication skills are recognised as important elements in the education of the modern engineer, including English for specific purposes. Yet, there seems to be limited implementation of English courses globally, despite its current lingua franca status. The incorporation of language and communication improvement courses is an important element of continuous learning, and will ultimately contribute to the process of life-long learning. This should in turn facilitate advancements in engineering and, indeed, engineering education through streamlining fundamental communication skills.

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### BIOGRAPHY



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