

Editorial

ENGINEERING EDUCATION, GLOBALIZATION AND LEARNING STYLES

THE OCCASION of publishing this special issue on learning styles has prompted me to contemplate the very purpose of engineering education, and its relation to globalization and student learning styles. Engineering education itself is very much a national and institutional prerogative. Authors often claim that the educational measures described in their papers should serve to 'maintain and improve the competitiveness' of their country of origin, i.e. to maintain USA, U.K., Germany, etc. as the leading industrial nation. This is exemplified by the measures taken to improve manufacturing engineering education in the USA in the past decades in order to keep the country's manufacturing industry competitive in world markets.

The European Union support programs make attempts at internationalization of engineering education, for example. The intentions of the actors who receive grants in these programs are to raise each individual partner to a higher level of competence by cooperation and mirror imaging the partner's research and developments. The aim of the grant-holders is to make a department or scheme better than what the competition has to offer. Above all, engineering education tends to be a competitive, self-centered activity, which concentrates on the enhancement of national and institutional standings.

Because of the close ties of engineering education to national economies it is in fact more self-centered than other education streams. Just think of the above mentioned goals of engineering education as compared with those of medical education, economics education or education in the humanities. Globalization of general education and engineering education are conflicting goals in many ways. However, education itself—leaving out the 'engineering'—is concerned with individual behavior. Learning styles are related to action and interaction of the individual. It is the way each learner begins to concentrate, process and retain new information. In order to identify and assess a person's learning style it is important to determine what is likely to trigger each student's concentration as related to his multidimensional characteristics. This is a unique and individual signature of the learner, dependent on inherited characteristics and environmental influences. The aims of engineering education and the improvement of learning styles are complementary but are difficult to relate, particularly for engineering educators. This special issue is intended to help us in a small way to relate engineering education to some fundamental aspects of education.

It is an honor to have Terrance O'Brien, current Head of the Department of Curriculum and Instruction College of Education and Psychology, North Carolina State University in Raleigh, serve as the coordinator and editor of this special issue. Terry succeeded in assembling a mix of papers from engineering educators and education department faculty for all of us to recognize the individual measures and recommendations to improve the learning styles of engineering students. I hope, in particular, that engineering faculty will benefit from the aspects of education studies. I am deeply grateful to Terry and the authors for their valuable contributions to our journal.

Michael Wald