Field training for ergonomic students in Bali, Indonesia

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Describes a practical, step-by-step training for students in ergonomics in Bali, Indonesia. Emphasizes participatory learning, field training, and skills in leadership and communication.

Steps to expose the students as soon as possible to the real setting of the workplaces are carried out from their first enrolment in the programme. The programme begins with the giving of information about the economic development potential of Bali, and how this is being used to enhance the quality of life of the people by activities in tourism and small-scale and cottage industry since the First Five Years Development Plan in 1969.

This introduction is then followed by lectures on ergonomics principles and problems. Many examples of how ergonomics is able to solve the problems and lead to better economic conditions, safety and health are shown to the students. A built-in motivation approach is highlighted in this process. Students learn, by such examples, the need for an appropriate approach for the detection of problems and the formulation of solutions, skills which would be invaluable to the students after their graduation.

At different stages of their training, the students visit enterprises to detect problems and formulate solutions. A report is then presented in front of other students and the staff members to be discussed and evaluated.

Shortage of equipment for field studies is being compensated for by the use of reliable objective and subjective methods, such as the simultaneous use of camera and stopwatch, subjective rating questionnaires, anthropometric and relevant environment measurements. Very often a participatory approach is necessary to study the problems holistically, since problems are now becoming more complex and need a multi-disciplinary approach in their solution.

Communication is also very important and essential to a successful ergonomist. Thus knowledge, attitude and skill must be conditioned as much and as early as possible. Every available opportunity is being used proportionally and appropriately. For example, in communicating and negotiating with a target industry, the students must do it by themselves.

Leadership qualities are also very important to the students. Usually, a student having better connections with one target industry is chosen as the leader for that visit. By so doing, working in a team and leadership skill will be learnt by the students as well as the scientific and technology aspects.

Throughout several study visits, the training provided will be very useful for the students when entering the real world outside. We are still having some problems that are very difficult to solve, such as proficiency in English, the language for international communication, limited resources for visiting big industries located mostly in Java and limited up-to-date library resources, etc. However, partial solutions are implemented such as asking the students to take English and computer courses, inviting foreign lecturers, developing joint research with foreign institutions and making students actively participate in international and national ergonomic conferences or related fields carried out in Bali, and saving some money for conducting study visits to other parts of Indonesia or abroad whenever there is an opportunity to do so.

Comment
This example is of interest because it describes very practical, on-the-job training of ergonomic students, maximizing the use of the very limited scientific equipment available to them.