

## ABILITY TO TRANSLATE KNOWLEDGE INTO PRACTICE, A STUDENT'S PERSPECTIVE

Professional education ideally must reflect practice if it intends to prepare future practitioners. As society deals with political,

Engineering work is focused on resolving undesirable conditions through the application of technologies. The technologies involved

*"I am, as I've said, merely competent. But in the age of incompetence, that makes me extraordinary."*

*Billy Joel*

social, economic, and technological changes; professional practice and professional education often are redefined and reformed to suit societal needs. Engineering is no exception.

may be well established, just coming up, or as-yet unimagined. Therefore, a central activity of engineering work is solving problems to provide worthwhile service in the pursuit of important human and social ends.

### ABOUT THE AUTHOR.



*Masuzyo Noah Panda is a fourth year Mechanical Engineering student at Copperbelt University in Zambia. To him, being an engineer means being a problem solver, somebody who is capable of analyzing a situation and finding, if not an optimum solution, a solution within a set of boundaries.*

One's ability to translate the knowledge they acquire from university is based upon how much they understood from what they were taught and how much they were physically exposed to.

What I found from my first internship was that industry and reality in work places require one's ability critically analyze practical situations and be able to come up with viable solutions. I needed to be creative and think outside the box. I realized that simply graduating with A's or B's mattered less in practice. Creative thinking about the problem is key to finding the solution.

But most often than not, the question is asked, how does one become creative in industry? Well, I think it all boils down to the exposure you have had prior to the finding the problem you have set out to solve. How then is it that

a Graduate from a well renowned university such as The Copperbelt University might end up lacking the technical know how of the practical applications of the information they acquired from school? I think the lapse in our university curriculum lies in the course outlines for nearly all the programs. Most of the material in these courses is mainly concerned with the theory aspect of work as opposed to the practical aspect.

In my short period of practice as an engineering student intern at Zambia Breweries, I had to become familiar with world class manufacturing techniques which I had

never learned back at Copperbelt University. I had to do this as quickly as I could because I was there to work and learn.

During my internship at Zambia Breweries plc. in Ndola Zambia, I was exposed to a lot of equipment, techniques and processes that I had not been exposed to before. Often times we learn about equipment without actually knowing how complex they are or how difficult it is to run a diagnostics' test on the equipment.

On the other hand however, one of my 3<sup>rd</sup> year courses proved to be very helpful when it came to working in teams. I had learnt a great deal about working in a team and

just how complex working in a team could be from my design principle's course. This was owed to the fact that a few chapters in the course were dedicated of teams and there interaction.

Here's my point, for a student to be competent enough they need to be more exposed to things they learn. Let us have a better feel of what the books say. Practice should become a tradition that our lecturers should help nurture into us. This can only be done by revising some of the curriculum to include a side that will enable one to visualize and actually

appreciate what they are learning, that is the practical side of things. I for one thinks learning is not learning if I cannot visualize or realize the importance of what am being taught.

Young engineers coming directly from education have good theoretical skills but limited practical experience. They must gain some experience before being able to perform useful work. Therefore, young engineers very seldom need more theoretical education. They need to face the reality and to make mistakes and then become skilled and experienced engineers.

Engineering education should be made more practical in university.

To sum up, one of the most efficient ways to get new knowledge is to solve "new" problems. To do this, the student young engineer needs a good knowledge base, both from theory and from practice. By facing "new" problems, the competence of translating knowledge into practice of the engineer is successively increased. So the young engineers need to be exposed to a lot of problems in their field of study. They need more from the practical side of things.