PRACTICE IN THE TECHINICAL EDUCATIN AS A LEADING FACTIOR FOR REALIZATION

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The material examines the students' activity and their attitude towards self-study. This can clearly prove how they can apply the knowledge acquired. Undoubted in this case is the practical experience. This article is specifically concerned with this method. Practical experience, acquired by the student is being examined concerning its flexibility and correct application in a specific situation.

1. THE PRACTICAL TRAINING

1.1 A general review of the existing problem.

The material studied in the University has two important aspects-the theory and the practice. It's important to mention that the theory without the practice and the practice without the theory leads not only to an incompletely process but deprives the students of a solid erudition as well. That would logically lead to a difficulty or even to an inability to realize in the field of study. We can solve that problem by paying a special attention to the practice. The practice in itself leads to an elaboration of the learning and a high competence in the respective field of study. The problem about the acquires solid erudition is discussed and arranged by the syllabus. This syllabus pays attention to the disciplines and the classes studied in the respective university. And this is where we should consider carefully the key correlation between the practice and the theory. That's somewhat done by the laboratory exercises and the seminar classes, but for the engineering field of studies it's extremely insufficient. The practice in itself is not a plain skill (for example driving a car) but it is rather a discovery and scientific achievements combined with theoretical basis.

The University of Cambridge [1] looking at the approve syllabus put together to the practical knowledge we can easily make a conclusion a modern education situation corresponding to a world standard. For detailed information about a particular student and his degree, a local department is made. [2]

The University of Oxford [3]. For the interested in the syllabus people the web address [4] can be used. Here is described the introductory information about the students teaching, but the more important is the strictly precise order and criteria shown just in the introduction. A very important circumstance for the student is his first choose and the object of study.

That makes the "Education and carrier" magazine to pose the question: "If the education is expensive, is the ignorance inexpensive?" [7].

The Vienna University [5]. The syllabus is all made by the student. The attendance time depends completely on the personal choice made during the teaching

process. This type of syllabus gives the students the opportunity to organize his time which is manual particularly for a introductory stage at the university. The schedules and the busses depend just on the student and the same time there is a limited minimum of the exams at the end of each term. Here we notice the advantage of such a schedule as everyone plans his own time. Knowing his training level.

The available courses educational method at the "Concordia University", Canada [6]. The information of the web page is based not only on the buses but is also based on a particular practical orientation – requested for and suggested experts at the private firms and companies. Practical – the applied aspect is often financed by non-university organizations interested in a particular research. For example that can be a research in the field of electronics, useful for the security equipment – radio SST; automated retracing - GPS; measurement of particular non-electrical and physical quantities and their processing. Observing of slowly changing electrical – mechanical process, measurement of their characteristics. As a result – elaboration of a particular electronic assembly or a product [2].

1.2. The solid knowledge combined whit a high whit practical experience.

This material discuses the problem about the student activity and his attitude to the self – dependent work. That can show us that part of the knowledge is being used. The practical experience the student has is estimated by putting it into practice in a particular situation. The talent and the logical though can be easily estimated by a similar process based on all taking part parameters in that kind of presentations it is important to consider how the theoretical material is in accordance with it's practical realization. Such a statement makes us put the question: "How solid is the knowledge?" The answer is discussed in respect of the entire teaching whit an emphasis on the practice. Practice that will not only give the student a good start in his realization but will give him good and solid knowledge. The main aim of the university education is not to make the student universal but is rather to give him a good base for a future advance. That means the high education is not the end but is just the beginning of the career in the chosen professional field. The knowledge doesn't always mean a good realization. And it is a subjective problem. But it leads to two questions: The question about the quality introduction to the material – that introduction means not only a good understanding of the lecturer but using the appropriate stile and lexis and good examples as well. It's important to notice the help from the lecturer during the classes and also out of classes. The personal attitude of the student to the discipline appears in his extra interests besides classes. Such an interest of the student must be provoked and that's often done by the practical training. In the particular field of study. Theoretical reasoning and consecutive thinking are extremely important but without the practical support the meaning of the words wanes many times. That in itself lead to a decreased interest of the student. This makes me thing the listener always must experience the discussed problem so he can assure himself of the statement authenticity.

The individual attitude to the inspection matter – this process is a complicated factor being an aggregate of knowledge and expectation. The knowledge can be

acquired while the expectation is a matter of personality and is usually quite different. The will to work can be provoked by the lecturer using many examples.

So having a particular technical solution provoked by a given development. I suggest the following order:

- choosing a specific development product;
- a comparison between all know theoretical and practical knowledge and the present solution;
- theoretical (mathematical) project of the product;
- a practical realization;
- a researching and analyzing the results of the practical experiments and measurement;
- comparing the expected and the measured parameters;
- a conclusion and a demonstration. The above sequence is presented on Fig.1.;
- an exemplary scheme of realization a particular technical product.

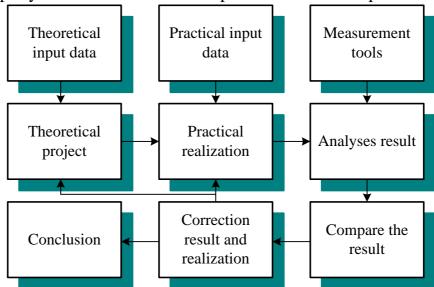


Fig.1. Example circuit for practical unit realization

The ability and the logical thought can easily be studied in such a work process. On the grounds of each of the parameters involved in this kind of presentation we have to, by all means, take in consideration the extent to which the scientific theoretical material is co-ordinated with its practical realization. This appeal clearly guides us to ask ourselves the question: "To what extent is the acquired knowledge permanent?" Orientation which will not only give a good start in the realization but will definitely give permanent and consistent knowledge.

The realization of a student who has completed the whole course of a specific technical subject is a clear sign to ones knowledge and abilities to apply it in ones work. In this direction in fact our university is proud with a number of young successful specialists who have applied their knowledge in the fields correspondingly: MTEL, GLOBUL, Cable BULGARIA, Sat TV, BTK, designers' bureaus in association with a number of companies technically connected with the object of training. This shows us to some extent that the overall scheme has found its

application. And here follows the logical question: "How expensive is the higher education in Bulgaria?" The answer is in the fractionally studied in the Internet opinion: "if education is expensive, how much can we value ignorance?" Of course different age groups having access to the global information system give such an evaluation. This factor only in fact shows that this is the place where everyone is able to express a personal opinion and we can only evaluate it.

2. REFERENCES

- [1] University of Cambridge http://www.cam.ac.uk/, 2004.
- [2] University of Cambridge http://web-search.cam.ac.uk/query.html?qt=Student+plan, 2004.
- [3] *University of Oxford* http://www.ox.ac.uk/, 2004.
- [4] University of Oxford http://www.wadham.ox.ac.uk/admissions/racepolicy/actionplan, 2004
- [5] Vienna University of Technology http://www.tuwien.ac.at/english/, 2004.
- [6] University of Quebec http://registrar.concordia.ca/calendar/calendar.html, 2004.
- [7] Education and carrier mag. http://www.abonamenti.com/ok/index.php?id=135, 2004.
- [8] Canev, N. and co., *Practical manual for education student from pedagogic specialist*, Veda Slovena, 1996.
- [9] Ivaonv, B., *Profession and practices*, Education and profession mag., vol.6,7, page 63-64, 1993
- [10] Bochev, B., Difficult way to prove, Education and profession mag., vol.8,9, page 3-5, 1993
- [11] Bekchieva, U., *Professional choise*, Targovishte, Education and profession mag., vol.8,9, page 40-41, 1993
- [12] Georgiev, L., Practices in pedagogic skill, Pedagogic mag., vol.9., page 20.