

Improving Intrinsic Motivation among Engineering Students by an Introductory Project

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Motivation is defined as an individual's wish to invest time and effort in particular behavior. The source of motivation is explained by a large variety of theoretical approaches. The self-determination theory argues a person has three inherent needs: 1. The need for autonomy – the individual's need to feel his/her behavior was not imposed on him/her, but is based on the individual's requirements. 2. The need for competence – the individual's need to feel he/she is able to fulfill challenging objectives. 3. The need for relatedness – the need to love, be loved and be part of a group. When a person's needs are fulfilled they will reach a higher level of motivation, while deprivation would hurt it. On the opposite side of the scale is intrinsic motivation based on interest and enjoyment. The theory claims that the more the motivation stems from intrinsic factors, the more its quality is high. Since this theory has recently become a leading theory of motivation in general and educational motivation in particular. We used it during English classes at the Civil Engineering Faculty for undergraduate students during the first year of their studies. The Introductory Project was devised to expose students to the discipline of technical English and enhance their sense of relatedness to the future specialty in order to improve their motivation.

Undergraduate students developed a project named “The architecture of my home town” comprising urban planning, town planning, industrial design and even the new building technology implementation. Those tasks were carried out within activities going at practical English classes. This project was a very interesting work and took the time of two semesters. The aim was to explain the students how useful those experiences have been, allowing them to explore many techno-scientific activities within their engineering education while student as well as other transferable skills and later, up to the present, as a professional in academic environment.

The course was divided into two equal parts. The first half included lectures and instruction that provided the students with the tools they would use throughout the course particularly in the second half that focused on carrying out a project. At the end of the term all the students submitted their presentations. The students chose their special way to do it. Some of them made reports or presentations (e.g. two design projects “The future of my home town”, one entertaining excursion for foreign guests around the town and even an amateur film “Vitsebsk is the best town in the world”).