STREAMLINING THE MANAGEMENT OF INTERNSHIPS - AN IMPERATIVE OF THE TIME

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Internships are part of mandatory initial university training programs (both at Cycle I - Bachelor and Cycle II - Masters) and are oriented towards achieving specific and generic competences in a field of professional training / specialization [1, 2]. They represent the interference segment between the study process and professional activity being a first step towards adaptation and integration of students in the professional environment.

Internships in a higher education institution include the specialization (didactic, pedagogical, technological, production) internship, and the Bachelor / Master internship. The types, stages, place, period of deployment and duration of internships is determined by the educational institutions (faculties / departments) in strict accordance with the learning outcomes and the expected competencies for the field of study / specialty / specialization. Internships are organized based on special programs / contracts concluded in this respect with institutions and industrial enterprises [2]. The framework plan for higher education [1] defines the minimum duration of these internships: 10-15% of the total number of credits at cycle I - Bachelor and not less than 10 credits at cycle II - Masters.

Each university has its own regulation, programs and guidelines for the organization of internships, developed by specialized departments based on the provisions of the Framework Regulation on internships in higher education [2], for example, see: Regulation on the organization and deployment of students' internships at TUM, 2010 [3], GUIDELINE on the organization and deployment of internships, TUM, 2010; Internship notebook for undergraduate students at Bachelor level - cycle I and Master level - cycle II, TUM 2011 which are located on the website of TUM [4]. The way internships are organized may vary greatly from one institution to another, the type of internship, but the effectiveness of internships depends largely on the management of the internship cycle "*organization - deployment – evaluation".*

The analysis of the current situation at Technical University of Moldova (TUM) shows that we have a number of drawbacks in this regards and it is necessary to take some concrete measures to improve the management of internships. For example, until now outdated methods are used to monitor the process of deployment of internships, which probably were effective a few decades ago, but are inadequate under current conditions. In the period when the share of large enterprises in the Republic's economy was essential, the students of an academic group were usually assigned to 2-3 companies. The current monitoring, in this case, was carried out by periodic visits to the enterprise of the internship supervisor from the department when he/she checked the internship progress, being able to discuss with both the trainees and the internship supervisor at the enterprise.

As a result of structural changes in the economy of the Republic of Moldova in recent decades the share of small and medium-sized has increased essentially. Under these conditions, the distribution of trainees in large groups to a single company becomes ineffective. Thus, there is a need to distribute them into groups of 1-2 students in a large number of enterprises, institutions and companies. In these circumstances, monitoring the progress of internship deployment by the supervisor from the department through visits to enterprises is no longer an optimal control method.

Figure 1 shows the situation at TUM regarding the number of enterprises, used as bases for internships, and the number of students involved in internships. On average, there are more than eight students distributed at a company, who are from different specialties and different years of study. Thus, students from an academic group are assigned to 8-10 enterprises often located in different places. In these circumstances, the internship supervisor from the university manages to visit a limited number of companies, meeting the majority of students-trainees only at the defending of the internship report. The process of monitoring the internship deployment becomes extremely complicated due to dispersed locations of internship sites, but also because of the overlapping of the period of internships and teachers' holidays. Often, the current monitoring of internships is not undertaken. It is obvious that in such circumstances,

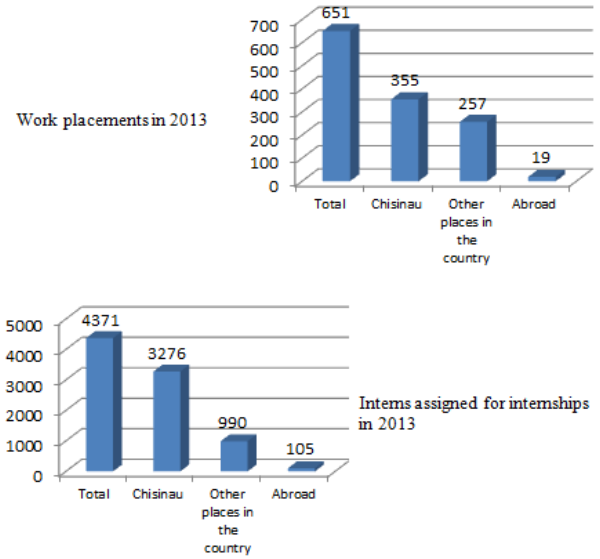

Figure 1. Internships at the Technical University of Moldova.

internship supervisors from the department need new much more effective tools for monitoring the deployment of internships.

One way to streamline the management of internships in companies is the implementation / use of modern information technologies. For online complex monitoring of the deployment process of internships, an optimum tool would be the electronic platform of e-learning type. At TUM, for distance training of the students the educational platform "*Moodle*" is implemented and widely used. It can be successfully used for monitoring internships, being provided with a distinct module "Internships" for students and internship supervisors. This module (Figure 2) allows the operative exchange of information between the supervisor and trainee / group of trainees, view online weekly reports of trainees sent to the internship supervisor from the department and their storage; sending the current tasks that are to be met, objections and other information by the supervisor to each trainee or group of trainees; import by the users of useful documents placed on the "*Moodle*" platform (Internship notebook), chat communication among students and others.

Compared with traditional methods of monitoring the internship deployment process, the use of this educational platform "*Moodle*" has a series of obvious advantages, the most important being:

- ✓ high efficiency in monitoring and interactive management of process development, irrespective of the number of companies where students undertake their internship and geographical location of these companies;

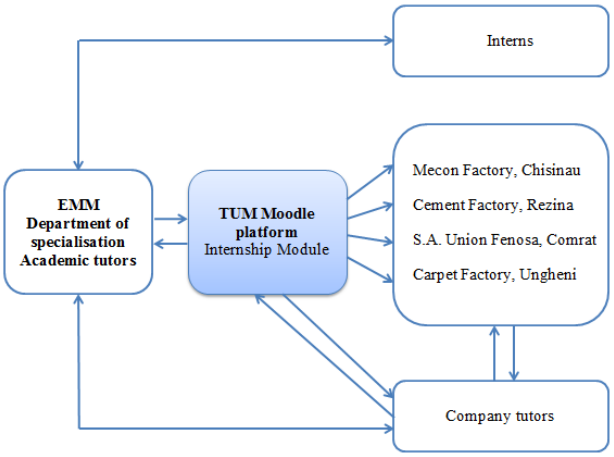

Figure 2. Moodle platform - an important tool for monitoring internships.

- ✓ minimization of financial expenditures and saving the time required for monitoring (compared to traditional methods, which involve expenses for supervisors' trips to enterprises in other localities, where the trainees carry out their internships);
- ✓ operative monitoring and evaluation of students' activities throughout the internship period and, if necessary, take corrective measures and, consequently, ensuring the good quality of practical training of future specialists;
- ✓ familiarization with information technologies both of the students and teachers in professional areas and daily life etc.

In general, using the module "Traineeships" on the platform "*Moodle*" provides undertaking the following steps:

- initial training of internship supervisors from the department in the use of the educational platform "*Moodle*" and the module "*Internships*";
- creating an account on the platform "Moodle" for internship supervisors from the department;
- creating groups of trainees in the module "Internships" and obtaining the access password for each group;
- initial training of students in the use of the educational platform "*Moodle*" and the module "*Internships*";
- creating an account on the platform "Moodle" for each trainee and ensuring their access to the module "*Internships*", using the group password;
- importing the internship notebook by trainees from the platform "*Moodle*";
- writing weekly reports on the internship progress by trainees and sending them to the internship supervisors from the department;

- evaluation of treinees' weekly reports by internship supervisors from the department;
- final evaluation of treinees by internship supervisors from the department.

In the second semester of the academic year2012-2013, the educational platform "*Moodle*" was used, in testing regime, for monitoring the deployment of internships in five academic groups (74 students) from the Faculty of Power Engineering (FPE), Faculty of Constructions, Geodesy and Cadaster (FCGC) and the Faculty of Textile Industry (FTI) of TUM. For example, the method was tested at the Department "*Building Technology*" of FCGC in the course of deployment of production and managerial internships in the academic groups CIC-101 and CIC-102, specialty "*Construction and civil engineering*". Practically, there were tested all the possibilities of the platform: sending weekly reports by trainees to the supervisors from the departments by attaching graphic materials, photos etc.; communication of supervisors with students and of the trainees / trainee groups with each other through messaging and organization of chats etc. The results of internships deployment in the above mentioned groups have demonstrated the rationality and efficiency of the module "Internships" on the platform "*Moodle*". Both internship supervisors from the department and students-trainees mentioned the usefulness and convenience of using this platform. In particular, they mentioned the performance of this tool, supervisors emphasizing the essential improvement of the quality of current monitoring of internship deployment process compared with conventional methods currently used.

Another measure to streamline the management of internships is improving the existing system of assessment of internships. From our point of view, for the evaluation of internships it is necessary to apply the cumulative criterion similar to the one used at the final evaluation of the taught subjects. A strong argument in favor of this statement is the implementation of online monitoring system of internship deployment process, which was mentioned above. Applying this tool allows to evaluate current activities of trainees (by analyzing weekly reports by supervisors, taking into account the report delivery deadline for students and other factors), and, therefore, provides conditions for the use of the evaluation cumulative criterion. This fact motivates students to take a responsible attitude towards all activities envisaged in the period of the deployment of internships. Based on the experience acquired during the deployment and evaluation of internships in the academic year 2012-2013, we consider that for the evaluation of activities there can be adopted the following values of the share indices: current activities (including assessment of activities by the internship supervisor from company) - 40%; the report (including, if applicable, papers, PowerPoint presentations, etc.) - 30% and defending of the colloquium - 30%.

Based on the above stated achievements, the following **conclusions and recommendations** can be made:

1. Platform „*Moodle*" is an effective tool for current monitoring of internships and can be recommended for widespread use at all TUM's specialties.
2. Implementation of online monitoring of the internships deployment process allows to apply the cumulative criterion of final evaluation of internships and thus motivate students to take a responsible attitude towards all activities envisaged in the period of the internships.
3. In the context of those mentioned, it is necessary to improve the "*Guidelines on the organization of internships*", taking into consideration the possibilities of using the platform "*Moodle*" as a monitoring tool and the need to apply the cumulative criterion of final evaluation of internships.

References

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4. *http://www.utm.md/ro/acte-normative-interne/*

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