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Webpage of the BP: não temos ☹

Title: Low Academic Outcome System (LAOS)

University: Instituto Superior Técnico

Country: Portugal

Dimensions: Education

Categories: People

Executive summary: The Low Academic Outcome System (LAOS) is active in IST from 2010 to the present as an answer to pressures of the tutelage upon Higher Education Institutions (H.E.I.) to graduate as many students as possible within a reasonable time frame.

The Tutoring Program (TP) - http://tutorado.ist.utl.pt/en/ - runs the System by using an informatics tool that, in a timely manner, identifies students who present low academic outcomes, putting themselves at risk of being excluded from IST for one year. Some of the students identified through LAOS are also identified through a special grid that allows tutors to identify, each semester, their tutees academic results. Both these tools, combined, support the launching of recovery programs for students, such as workshops aimed at improving students self - regulation skills and, ultimately, their academic results.

Implementation of the practice: LAOS was created in 2010 after the take off of the Portuguese law related to the H.E.I. funding. Every year, H.E.I's have to deliver a list of student's with persistently low academic outcomes to the tutelage, since those students cannot enroll in any H.E.I. in the next year. This new law implies not only a loss of students, but also a loss of funding for the H.E.I. The persistent low academic outcome is measured by a metric that defines that after 3 enrollments a student must succeeded in a minimum of 60 ECTS, after 4 enrollments in a minimum of 120 ECTS, and after 5 enrollments in a minimum of 180 ECTS. At IST, LAOS allows for the identification of students with persistently low academic outcomes before their 3rd enrollment, and is complemented by an intervention plan that aims to reverse the low academic outcomes, and to prevent students to reach their 3rd enrollment, therefore avoiding their exclusion from HE.

LAOS is based on an informatics tool integrated in the school intranet system. The System allows for the identification of students at risk following a set of sequential Moments, each Moment being defined by specific rules to be

described.

The system has a two-step implementation - in the **first step**, the system identifies all the students that are at risk of being excluded, in order to test the informatics integrity of the tool as well as to effectively identify the students at immediate risk to be excluded in the next year. The moments used in this test phase do not correspond to the current Moments, neither to the general aim of LAOS itself. The system test identified 1069 students with low academic outcomes. As LAOS includes preventive measures (e.g. proposed actions directed at students at risk of being excluded, such as the Workshop *To Exclude Exclusion*), 54 of the students identified during the test phase enrolled in the Workshop. From the total of identified students, 3 were excluded for one year - none of them had participated in the Workshop previously.

The **second step** of the implementation of LAOS brought some changes to the 1st draft of the System. Initially, the system was targeting all the students in their 2nd and 3th enrollment, however, considering that most of the students have low academic outcomes specially in their 1st year, and that the dropout rate is higher in the first two years, LAOS was changed to identify also the 1st year students (see Figure I - 1st draft of LAOS on the attached document). From the initial 3 Moments, the System was finally enlarged to include 5 Moments (see Figure II - Low Academic Outcome System on the attached document).

Achieved results *(Describe the achieved results in relation to the planned objectives, also with the changes introduced during the practice implementation. Additionally it values the contribution of qualitative and quantitative data that demonstrate the fulfillment of the objectives)*:

Globally, results achieved match the planned objectives. All at risk students were identified each semester, although not all actively participated in the activities the tutoring program offered them (e.g. workshops, attribution of a tutor from their programme, part time enrollment until academic results get back to normal and meetings with TP staff), and the general feedback gathered from students, tutors, families and IST's management board is positive.

Some changes were introduced during the practice implementation:

1) The production of the lists of at risk students strongly depends on the timely release of student's assessment by their teachers – we've found that it is crucial that all the information is available by the time the System is activated; otherwise, students without low academic outcomes may be wrongly selected.

2) Another factor that was crucial to the success of LAOS interventions was the timely offer of the workshops. If there are delays in the release of academic results by teachers and in the running of the informatics application and workshops are offered at a time of the school year when students are either absent from school activities or too immersed in them, they don't attend the workshops.

If we specify the fulfillment of the LAOS objectives, we have to be reminded that, although the system is sub sequential, the 5 moments occur in only two periods of time. Three of them occur simultaneously in March, and the remaining 2 occur simultaneously in July, as showed in Table I - LAOS Moments Dispersion in Time (see attached document).

The first application of the latest version of LAOS occurred in 2010, students in their 2nd year enrollment being the target. 461 students were identified, 122 where considered drop outs, leading to a total of 339 students contacted by e-mail. Only two of the students enrolled in the Workshop.

Since 2011, the 5 Moments application is running, reflecting an interesting trend - the 1st, 3rd and 5th Moments (winter semester) seem to gather more students with low academic outcomes, than the 2nd and 4th Moments (summer semester). There are several explanations for this fact, including a positive answer from students even if they don't participate in the proposed activities, just by being confronted in a systematic way with the difference between real and expected results; a small number of students may drop out of IST between semesters; an adaptation of the students to higher education, with the consequent improvement of academic results.

Assessment and review (*Describe the evaluation process and review and proposals made for improvement identified and introduced into the practice. And the degree of learning from the results obtained and not obtained*):

In order to enhance the range of identified students in each Moment, the tool suffered several changes since it's first application, all concerning a better accuracy of the measures.

The assessment of the satisfaction of the students with TP workshops and other sorts of support is positive – see http://tutorado.ist.utl.pt/en/avaliacao/. Also, an unpredictable outcome was reached, through a steady increase in the number of students who, annually, contact TP staff in order to clarify questions about the exclusion law and to apply for help to revert their academic outcomes.

Since it's beginning, the System advising e-mails seem to work better in the 4th and 5th Moments, when students are closer to the possibility of being excluded for 1 year - students in that situation tend to enroll and participate

more in the Workshops. The response to the e-mail is also higher among the 3rd year students, mainly to clarify questions regarding retention rules and part-time enrollment.

Some discussion is still going regarding what to do with the students who persistently don't accept any help in spite of their low academic results, although early warning to the students seems to work a lot better than just excluding them without previous warning, as was the case before LAOS was implemented.

Innovative character and transferability *(Describe the aspects of internal innovation (at the institution) and innovation as respect to the context (at the university system) of the practice. As well as the elements and aspects that can be applied to a different context and possible recommendations that should be taken into account in a benchmarking opportunity)*:

The practice was innovative in 2010 and intended to respond to an actual need identified by the Portuguese Universities, resulting from the application of the law related to the H.E.I. funding. Until the present moment, we haven't acknowledged the existence of similar systems in other national or international schools, although it certainly is possible that other institutions have similar systems to identify and assist students at risk.

In the previous applications of the System, we've noticed mainly an 'alert' and informative effect, however, in the first two semesters the student response was very low. 1st year students tend to consider their low academic outcomes as part of a rite of passage into higher education, and therefore tend to minimize the effects of the first years on their academic path. Students in this situation seem to considerer that they are able to reverse it by themselves, considering external help as a demerit to their abilities. For this reason, and understanding that academic results in the first year are crucial for ensuing results during the whole of the curricula, in the 2013/14 Academic Year, five Programmes in IST (e.g. Civil, Mechanical, Electrical Engineering) introduced (as part of the first year curricula), the contents of the first session of the *To Exclude Exclusion Workshop,* regarding time management and behavior during classes and assessment.

It is also important to acknowledge that the 5 different Moments refer to different publics (e.g. students that are in different stages of their academic life), so the message has to be specially directed to each of them, in order to maximize their chances of responding.

For the 1st and 2nd enrollment, the best way to reach the students seems to be through a contact with their personal tutors (mandatory for these first years at IST in most programmes), who have a privileged access to their academic results – see portal functionalities in http://tutorado.ist.utl.pt/en/tutor/apoio-

ao-tutor/.

Besides the first contact with the identified students (in the workshop or/and the staff meeting) the Tutoring Program is working to implement a methodology to continuously follow the students, at least during the next one or two semesters after being identified by the LAOS.

We believe LAOS is possible to adapt to any University who's got worries about improving students academic results, although some conditions may be needed for this adaptation to become possible: all the information about the students assessment results must be updated and easily accessible in the school intranet system, to allow for timely interventions; the produced lists, besides the total number of ECTS should have the name, degree, student number, status (student-worker; part-time student, etc.), e-mail, number of enrollments and date of the first enrollment information's; some kind of support for students follow-up should be made accessible, either through specialized staff (e.g. educational psychologists) and specialized teachers (e.g. tutors).