

## COMPREHENSIVE ANALYSIS OF EXISTING LEARNING MANAGEMENT SYSTEMS (LMSs)

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| Type of institution:                 | Management School (consortium)  |
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| Name of training manager: (Optional) | Dott. Pancaldi Roberto  |
| LMS used:                            | Blackboard 5  |
| URL of LMS:                          | <a href="http://www.profingest.it/webcampus.asp">http://www.profingest.it/webcampus.asp</a>   |
| Language of LMS:                     |   |
| Number of years in use:              | Starting from 2002 <sup>1</sup>   |
| Other LMSs used:                     |   |
| Number of students in the system:    | About 300 on-line students  |
| Number of courses available:         | Currently 12 courses  |
| Typical duration:                    | It depends on the course type<br>2 years for our on-line business Master Business Administration course (MBA)<br>the others 4 months        |
| Number of tutors in the system:      | <ul style="list-style-type: none"> <li>• MBA 3-4 Tutors</li> <li>• Courses with about 7 units 3 or 4 per unit</li> <li>• Rest: 1</li> </ul> |

This analysis is divided into six parts.

- 1 Course development tools
- 2 Student support tools
- 3 Tutor support tools
- 4 Administration (student database and records)
- 5 Technology (quality of software)
- 6 Price

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<sup>1</sup> We started working with LMS in 1999. Before we used a platform developed by the local software house Greenteam

**1 Course development tools**

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| <p><i>1.1</i> Course creation.<br/>How satisfactory was the LMS for course creation?</p>  | <p>We are very satisfied with the product since it gave us:</p> <ol style="list-style-type: none"> <li>1. Visibility on a national level also thanks to a single graphical user interface.</li> <li>2. The possibility to reach users we could not reach before.</li> <li>3. the opportunity to revise and further develop all our course content before using it via Blackboard.<sup>2</sup></li> </ol> |
| <p><i>1.2</i> Structure and didactic flexibility - openness.<br/>In the creation of course materials did the LMS permit didactic flexibility? Was the structure open to differing didactic possibilities?</p> | <p>We try to combine a flexibility with a rigid course structure without creating rigidity. Especially for our MBA we have to guarantee flexibility since the students are all managers studying during the evening hours and the weekend. Choice of units is open only for thorough examination of certain subjects the rest of the study plan is mandatory.</p>  |
| <p><i>1.3</i> Teacher userfriendliness.<br/>How easy was the LMS to use by teachers and course developers?</p>  | <p>Our teachers who are also the tutors had no problems in using the LMS. For the most part they have found Blackboard to be very easy to use. In their opinion they can do more than before with our previous product. Valuable content development remains time consuming independently from what LMS you use.</p>   |
| <p><i>1.4</i> Support for graphics, audio and video, moving image.<br/>Did the LMS support the provision of graphical materials, moving images, audio and video in the course content?</p>                    | <p>No – this is a deliberate choice. There might be some graphics but we still prefer printable course material since only few persons have a connectivity ADSL or ISDN at home.</p>   |

<sup>2</sup> In specializing courses we had to revisit even our methodology

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| <p>1.5 Questioning, assessment, assignments.<br/>                 What provision was made by the LMS for student questioning and assessment and the design of student assignments?</p> | <p>We have to distinguish between two types of assessment we use:</p> <ul style="list-style-type: none"> <li>• informal assessment</li> <li>• formal assessment</li> </ul> <p>The first is build in the course structure through case studies to be developed by the students. The second one is never on-line but is done through traditional exams to be taken in house.</p> |
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**2 Student support tools**

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| <p>2.1 Interactivity possibilities.<br/>                 What provision does the LMS make for student interaction?</p>   | <ul style="list-style-type: none"> <li>• Chat</li> <li>• Virtual class</li> <li>• e-mail</li> <li>• forum</li> </ul>  |
| <p>2.2 Online student to student communication (synchronous and asynchronous).<br/>                 What facilities does the LMS provide for student communication to other students and how successful is it? Is both synchronous and asynchronous communication between students supported?</p>  | <p>Synchronous: chat, virtual class<br/>                 Asynchronous: email<br/>                 Especially with the use of synchronous communication we still pay very much attention since it is new for us. Initially it is fascinating but then it oft en also produces negative side effects. Our motto is: Important questions have to be made via email.</p>  |
| <p>2.3 Online student to tutor/institution communication (synchronous and asynchronous).<br/>                 What facilities does the LMS provide for student communication to the tutor ion to the institution's administration and how successful is it? Is both synchronous and asynchronous communication supported? Are these support services available 24 hours a day?</p> | <p>For the communication with the tutor we only use emails since most of the questions can not be answered immediately. The response from the tutor's side is guaranteed within 48 h max. This is our solution for not having a 24h help desk available. For technical problems there is a help desk but only during our office hours.<br/>                 We do not use the forum since we experienced that it is not effective for teaching.</p> |

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| <p>2.4 Resources, library, references.<br/>                 What facilities does the LMS provide for student acquisition of resources required by the course, especially library resources and references to required readings?</p> | <p>All the reference for our on-line courses was developed ex-novo. Before the course starts we prepare the course specific resources and store them on the platform. We are gradually structuring an archive which is not on-line but is used during the preparatory phase.</p> |
| <p>2.5 Feedback on work and assignments.<br/>                 What is the quality of provision of feedback to students on their work and assignments?</p>   | <p>As mentioned before, we provide all kinds of feedback within 24 h to all students independently from the type of request.</p>   |

### 3 Tutor Support tools

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| <p>3.1 Tracking students - database questions.<br/>How user friendly is the LMS for tutors wishing to track their group(s) of students and retrieve data from the student database?</p>                                   | <p>Yes we do track students to monitor their individual learning path and evaluate it at the end of the course. We find it easy to use.</p>   |
| <p>3.2 Group management tools.<br/>What facilities are provided by the LMS to the tutors for managing their group(s) of students?</p>   | <p>The groups are managed generally in <b>different ways on-</b> and off-line:</p> <ul style="list-style-type: none"> <li>• Residential (students coming from the same territory meet individually and 1/month with the tutor)</li> <li>• In traditional class (furthermore all students meet 10 x in two years in our premises)</li> <li>• Chat (not more than 4)</li> <li>• Group work on- and offline (see residential above) to get pressure through peers</li> </ul> |
| <p>3.3 Preparation of questions and assignments by tutor.<br/>How successful is the LMS in providing tutors with user friendly and didactically successful tools for the design of student questions and assignments?</p> | <p>Every unit has a work plan to be followed by all students. Assignments are provided on this basis and do not require LMS tools since our typical assignments are case studies to be developed by the students.</p>   |
| <p>3.4 Course planning for students (monitoring pace).<br/>What tools are provided by the LMS to tutors to enable them to monitor and plan student progress?</p>  | <p>For this purpose we use tracking facilities in order to check if students proceed so as to intervene with some motivating words in case they do not. Our customers are normally strongly motivated since they chose to enrol our courses to improve their career opportunities. Nevertheless studying after work is very tiring and we have to be able to help them to overcome little crises.</p>   |
| <p>3.5 User-friendly administrative systems between tutor and institution.<br/>What provision does the LMS make for successful tutor to institution</p>   | <p>Compared to our previous product, Blackboard allows</p>  |

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| communication? | us to have a much more structured and complete organisation. Proceedings are faster and better articulated. The workload is very cyclic. |
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**4 Administration (student database and records)**

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| <p>4.1 Enrolment procedures and fee paying.<br/>What facilities does the LMS provide for student enrolments, course allocations and payment of fees?</p>               | <p>Enrolment and fee paying can be done on-line but not via Blackboard. For this purpose (e-commerce) we use our company web site (URL: <a href="http://www.profingest.it/">http://www.profingest.it/</a>)<br/>Very few costumers take advantage of this on-line service.</p> |
| <p>4.2 Passwords and security.<br/>How successfully does the LMS handle student access to the system and the security of all student interactions with the system?</p> | <p>Security con Blackboard is much more guaranteed as before. The password is given to the student by Blackboard and not through us. Up to this moment we did not have experienced any pit falls. This is a sign for a very stable system.</p>                                |
| <p>4.3 Student records database.<br/>How successful is the system's student database, especially for data storage and data retrieval.</p>                              | <p>We started to store this type of data but we are only at the beginning. There is nothing we could say in this feature yet.</p>   |
| <p>4.4 Examination and certification records.<br/>What structures are provided for recording of data and results leading to examination and certification?</p>         | <p>As mentioned before, all our exams are taken in-house and never on-line. The intermediate test are study cases which are not automatic test to be recorded.</p>  |
| <p>4.5 Course, class and tutors database.<br/>What facilities are provided for administration of courses, classes</p>  | <p>We keep the class databases for its good structure.</p>  |

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| and tutors? |  |
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**5 Technology (quality of software)**

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| 5.1 Server - hardware and software options.<br>What is the quality of server hardware and software options? How is the system integrated with existing software?   | Since in the past our server was not large enough to handle the demand, we had to buy a larger server. Connectivity is done via NEXTRA. Our in-house webmaster worked on the compatibility of systems which was not too difficult. |
| 5.2 Client - hardware and software options.<br>What is the quality of client hardware and software options? Does the system permit metatagging?  | –  |
| 5.3 Flexibility of didactic structure; updating, adaptability.<br>Is the didactic structure flexible or is it determined by the technology? How adaptable is the technology to updates and to new technology that becomes available to the market? | The didactic structure flexibility and content updating is much simpler than it was before.  |
| 5.4 Standards.<br>What is your opinion about the standards for e-Learning?   | They are in line with our needs especially if we want to sell our product in other markets.  |
| 5.5 Limitation of size (number of students, courses, tutors..)<br>How satisfactory is the LMS for handling varying numbers of students, courses, tutors? How does it cope with 100, 1000, or 10000 students and large course databases?            | Our Blackboard licence is for 10000 students. We are satisfied especially when we compare it with our previous product which was slow and we always has to add RAMs to the server in order to avoid a complete collapse.           |
| 5.6 Speed of system.<br>How is the speed of the system and student satisfaction? How does it cope with downloading courses and high bandwidth materials?   | Excellent but in any case we rarely use images or other heavy files.   |

**6 Price**

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| 6.1 Cost of the LMS (Learning Management System).<br>What is the cost of the LMS to the institution? | Annual contract.<br>Approx. 50.000 € |
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| <p>6.2 Annual fee.<br/>What fees have to be paid annually for the system by the institution?</p>   | <p>Annual contract.<br/>Approx. 50.000 €</p>  |
| <p>6.3 Student Enrolment fee (100 students, 1000 students, 10000 students.)<br/>How do fees to use the LMS vary when the student base is 100 students, 1000 students, 10000 students? Is online invoicing available?</p>             | <p>The price of our course did not vary after the introduction of Blackboard. We hardly exceed 300 students.</p>  |
| <p>6.4 Maintenance costs: staff involved in management, IT specialists, trainers, etc<br/>What is the maintenance course to the institution of the LMS and what staff resources are need to maintain it and keep it functioning?</p> | <p>The work load of our internal web master did not rise so there are no additional cost to be mentioned.</p>   |
| <p>6.5 Training of teachers and learners and system users.<br/>What costs are involved in staff and student training to use the LMS system?</p>  | <p>Student training is done at the beginning of the course. They all receive a handbook to make sure that they cover how to login, use the drop-boxes, and so on.<br/>In parallel tutors get trained by means of a tutor specific handbook. Both handbooks a developed and published by us internally and get up-dated from course edition to course edition.</p> |

**Conclusion: Overall evaluation: satisfied we appreciate the ease of use**

**What features would you like to see included in this LMS in the future?**

1. open exercise part
2. possibility to use different formats in the box (now I have to use an attachement)
3. sending attachments is still very complex and not user-friendly
4. the possibility to mark activities done by the student. Now once you start to checking you have to go through the whole work or you have to make notes somewhere else to remember how much work you did. (remote archive)

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