

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

June, 2002

Name of institution:	<i>Centre national d'enseignement r distance (CNED)</i>
Type of institution:	<i>Public institution</i>
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Name of training manager:(Optional)	
LMS used:	<i>In house developed</i>
URL of LMS:	
Language of LMS:	<i>French</i>
Number of years in use:	<i>6-7 years</i>
Other LMSs used:	
Number of students in the system:	<i>350 000 CNED's students, but not all of them are included in the digital campus</i>
Number of courses available:	<i>500 and approx. 3000 Modules</i>
Typical duration:	<i>Vary according to a specific course/module</i>
Number of tutors in the system:	<i>For the primary and secondary education about 900, for the rest about 5-6000 tutors</i>

Centre national d'enseignement à distance (CNED) is a public institution under the authority of the French Ministry of Education. It is headed by a rector-general director, and comprises a central directorate, eight institutes, and a centre for the training of staff in professional skills for distance education.

The headquarters have been located on the site of the Futuroscope, near Poitiers, since 1993. On the same site are gathered the centre for skills in distance education, and the CNED's own services : a call, guidance and registration centre, an audiovisual centre, with advanced video production and post-production facilities, enabling direct satellite transmissions, as well as one of the eight institutes, the other seven being located at Grenoble, Lille, Lyon, Rennes, Rouen, Toulouse, and Vanves close to Paris.

The CNED was created in 1939 when war broke out, to cater for the needs of young refugees, but today its students and trainees are mostly adults (80%) who register with the CNED for courses at higher education level, generally with a lifelong training approach, and who aim at personal development, professional and social promotion. Out of the 80% adults registered at the CNED 56 % are in full-time employment.

CNED's mission is to provide a real distance education that means to enable a student from anywhere to follow the studies properly. There are students from France as well as French people living abroad following the courses. CNED basically provides from primary/secondary to higher education, including vocational education and training as well as continuing (further) education.

At higher education level the CNED prepares its students for qualification, certification and diplomas, in collaboration with more than 50 universities, who will provide the scientific

expertise, and deliver the diplomas, while the CNED provides the distance learning engineering. The CNED also prepares for entry to teaching and administrative positions (e.g. postgraduate diploma in education or in administration).

At school level, in addition to being the distance education provider for the Ministry of Education, the CNED also offers home packages for subjects that are not taught in school and support courses or summer courses.

The Campus Electronique is an open platform of information and pedagogical services on the Internet. Its services include reception and information, assessment and guidance, telelearning, a resource centre, forums, access to networks; the services are accessible from anywhere and at any time through the Internet and via digital satellite. The new digital satellite programme merges with the Campus Electronique open platform philosophy, providing a whole coherent set of digital tools and facilities for building courses and pedagogical strategies.

The CNED takes part in 17 national consortiums of universities and engineering schools created for developing thematic "digital campus". Through those additional partnerships more experiments are being carried on the use of LMS.

The questionnaire below only partly apply to the CNED situation. Therefore quite a number of questions can't be answered in the light of the evaluation of an LMS. Specially as the CNED carries its educational task on a large variety of levels, of pupils, students, contexts and environments (initial, vocational, continuing education, in France, abroad, etc.)

Because of these particularities the CNED uses and experiments, by itself or in partnership a number of LMS or assimilated possibilities. It has, as well, developed its own management system, the initial purpose of which was not to rely solely on online courses but on offering specific additional services. The variety of the CNED students and tasks is far too large to have one comprehensive system.

The following information were collected during an interview, and not directly written by the CNED representative.

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

1 Course development tools

CNED is used to being asked by Universities or other institutions to work with them in a partnership, that means that CNED would provide mainly the Know how that they have in distance learning, the methodology and then the content of certain courses is developed with a direct work with experts from the University. In this way both sides have the chance to see from the technical point of view if they could join somehow the Learning Management Systems or certain tools to improve the later virtual environment for their joint project (new online-course or a traditional face to face course changed into an online course). That means that CNED has in this way chance to see what would fit best for it as a institution, has the chance to try various systems and have more knowledge for later decision making. At the same time CNED can see new products that are on the market, what is the situation at the universities, what is the development and then to decide for something concrete for itself. Usually after the creation of the course the experts are asked to stay as tutors for a certain period of time in order to see the reactions from the students and improve the system further.

1.1 Course creation. How satisfactory was the LMS for course creation?

We could say that CNED has one basic system that allows new tools / elements to be added according to current needs, it is flexible, but problems always occur there. The creation of the courses is actually a joint work of CNED that provides know how, methodology, its expertise in distance education as such, in the work with various tools and on the other hand there is a institution e.g. university that import the content of the course. Usually when there is a course to be created the CNED examines if the tool of the institution could be useful or if the CNED should search for something new in order to provide according to best possibilities.

1.2 Structure and didactic flexibility - openness. In the creation of course materials did the LMS permit didactic flexibility? Was the structure open to differing didactic possibilities?

Yes, there is the one basic system and the CNED can usually add, join new tools, elements to it.

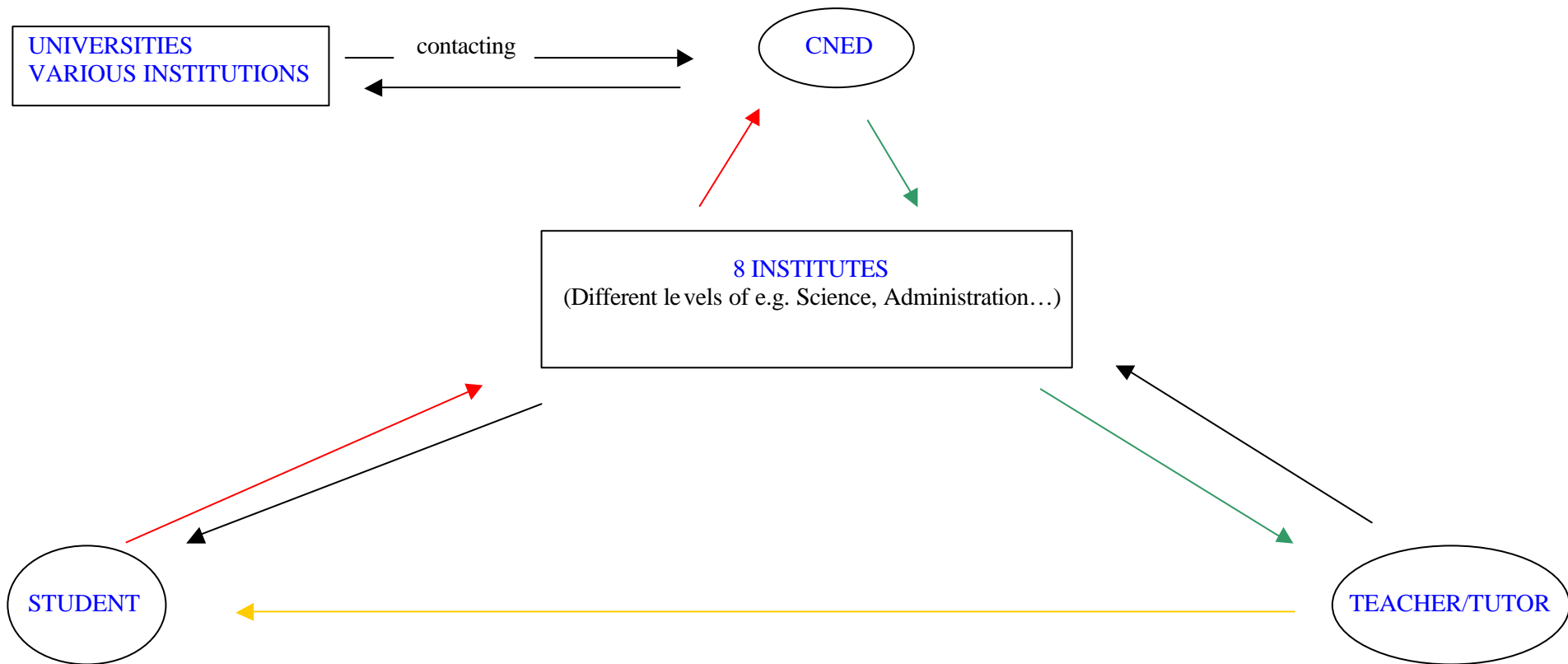
1.3 Teacher userfriendliness. How easy was the LMS to use by teachers and course developers?

It depends, because the CNED has students as well as teachers around the world and the first question is one of accessibility.

1.4 *Support for graphics, audio and video, moving image.* Did the LMS support the provision of graphical materials, moving images, audio and video in the course content?

The CNED has its own separate audiovisual broadcasting facilities. But it can also include videogrammes in its on-line documents. However, the question is once again one of accessibility by students who are anywhere in France and abroad.

1.5 *Questioning, assessment, assignments.* What provision was made by the LMS for student questioning and assessment and the design of student assignments?



Student communication with the institution goes through 8 institutes that were set up by CNED and they belong to it. They are in charge of different types of activities and in this way creating a stable structure of the whole system For instance students register themselves through CNED and are addressed to the corresponding institute or students send their assignments / essays to their institute.



CNED – tutor communication



Teacher - student

2 *Student support tools*

Please see the graphic

2.1 *Interactivity possibilities.* What provision does the LMS make for student interaction?

2.2 *Online student to student communication (synchronous and asynchronous).* 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?

It is mainly asynchronous communication although there are cases with the synchronise communication but it is quite rare. The CNED does use e-mails, chat, videoconferences, phone calls. It depends always on the student possibilities.

2.3 *Online student to tutor/institution communication (synchronous and asynchronous).* 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?

This is case by case different. Well the teacher usually contacts the student first when the course starts. The communication then depends as on the teacher as well as on the student. On the other hand there is the connection of the teacher to the single institutes, because usually the assignments are sent and collected in one of the institutes and then forwarded to the teacher. It is because the job of the institutes is also to check, control and monitor the student plan, progress, and results...

2.4 *Resources, library, references.* What facilities does the LMS provide for student acquisition of resources required by the course, especially library resources and references to required readings?

There are many ways. Before launching of ICTs the CNED had been used to provide students with CDs or other materials. The CNED can do it now actually in the same way but what the CNED is trying to do is also to maintain our websites updated and place there documents, samples that can be useful for all the students, then the students need just to download the file.

2.5 *Feedback on work and assignments.* What is the quality of provision of feedback to students on their work and assignments?

Teacher does it directly to the student usually by e-mail or any other means of communication.

3 *Tutor Support tools*

Please see the graphic

3.1 *Tracking students - database questions.* How user friendly is the LMS for tutors wishing to track their group(s) of students and retrieve data from the student database?

This is not done through the LMS. This is the job of the institutes to monitor the situation, manage the contacts between all stakeholders, be prepared to answer on any requests. They are responsible for registration that means they have the whole overview of the students' portfolio, they usually receive the assignments from the students in order to see if they are fulfilling the required criteria for further studies. For instance they must know if the student fulfilled the criteria to get to the upper module or be able to provide an employer with the proof that the employee was successful in the course.

3.2 *Group management tools.* What facilities are provided by the LMS to the tutors for managing their group(s) of students?

Difficult to say according to the large number of different courses operating in the combination with different tools.

3.3 *Preparation of questions and assignments by tutor.* How successful is the LMS in providing tutors with user friendly and didactically successful tools for the design of student questions and assignments?

Difficult to say according to the large number of different courses operating in the combination with different tools.

3.4 *Course planning for students (monitoring pace).* What tools are provided by the LMS to tutors to enable them to monitor and plan student progress?

This is done by the institutes; it is not controlled by the LMS.

3.5 *User-friendly administrative systems between tutor and institution.* What provision does the LMS make for successful tutor to institution communication?

See the graphic please.

4 Administration (student database and records)

4.1 *Enrolment procedures and fee paying.* What facilities does the LMS provide for student enrolments, course allocations and payment of fees?

Information on courses can be found on the site, but the very specific call centre of CNED processes the whole thing, in conjunction with the institutes.

4.2 *Passwords and security.* How successfully does the LMS handle student access to the system and the security of all student interactions with the system?

There is password given by the registration.

4.3 *Student records database.* How successful is the system's student database, especially for data storage and data retrieval.

4.4 *Examination and certification records.* What structures are provided for recording of data and results leading to examination and certification?

The CNED prepares its students for the same exams and certifications as everybody else. The students will sit for their exams in the universities delivering the diplomas, within the frame of a convention between CNED and the universities.

4.5 *Course, class and tutors database.* What facilities are provided for administration of courses, classes and tutors?

The institutes run these databases but apart from LMS.

5 *Technology (quality of software)*

5.1 *Server - hardware and software options.* What is the quality of server hardware and software options? How is the system integrated with existing software?

5.2 *Client - hardware and software options.* What is the quality of client hardware and software options? Does the system permit meta tagging?

It varies student to student.

5.3 *Flexibility of didactic structure; updating, adaptability.* 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?

5.4 *Limitation of size (number of students, courses, tutors..)* 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?

350000 is the number of registrations at CNED, as a whole, only a part of those students use the online possibilities.

5.5 *Speed of system.* How is the speed of the system and student satisfaction? How does it cope with downloading courses and high bandwidth materials?

6 *Price*

6.1 *Cost of the LMS (Learning Management System).* What is the cost of the LMS to the institution?

CNED is a public institution linked to the ministry and so there is some money transferred to CNED. The problem is that it covers just about 25% of the needed budget. The rest is obtained then from the fees for the courses. There are quite small charges for the courses in primary and secondary education (20% of students) and must be compensated by the other courses (80% of students)

6.2 *Annual fee.* What fees have to be paid annually for the system by the institution?

6.3 *Student Enrolment fee (100 students, 1000 students, 10000 students.)* How do fees to use the LMS vary when the student base is 100 students, 1000 students, 10000 students? Is online invoicing available?

6.4 *Maintenance costs: staff involved in management, IT specialists, trainers, etc* What is the maintenance course to the institution of the LMS and what staff resources are need to maintain it and keep it functioning?

6.5 *Training of teachers and learners and system users.* What costs are involved in staff and student training to use the LMS system?

Conclusion: Overall evaluation:

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

