



RISET - le réseau interfacultaire de soutien
enseignement et technologies

CritiQuest

e-learning project decision support and documentation tool



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A project supported by the Campus Virtuel Suisse

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Introduction

Between 2001 and 2005, the Campus Virtuel Suisse financed two support contracts for projects which make widespread use of training technologies. The first project, InterSTices, produced a model representing the various aspects which characterise eLearning projects in a university environment. The second, GIRAFE, provided a framework for considering the various stages which constitute the development of such projects and also produced a list of the factors for success as they appear in the literature. These various topics resulted in the production of publications, posters and workshops in various academic environments. The sheets to aid and monitor the decisions presented in this document are a direct result of this work, after learning engineers from the CCSP (Centre for expertise, support and production) of the University of Lausanne compared the content to their every day working methods in projects which were both large and small in scope.

This document should be regarded as a working tool for project managers or teachers involved in the design and management of online course projects. It is not a management process or a planning tool for using human or financial resources. It has a pragmatic aim; above all, it must serve to draw attention to the main areas of work, which must all be followed at the same time, and as a tool for documenting decisions. By doing this, it will make the planning tasks more effective, in particular by pointing out certain aspects that were often neglected in the projects that were observed.

Scope and implementation model

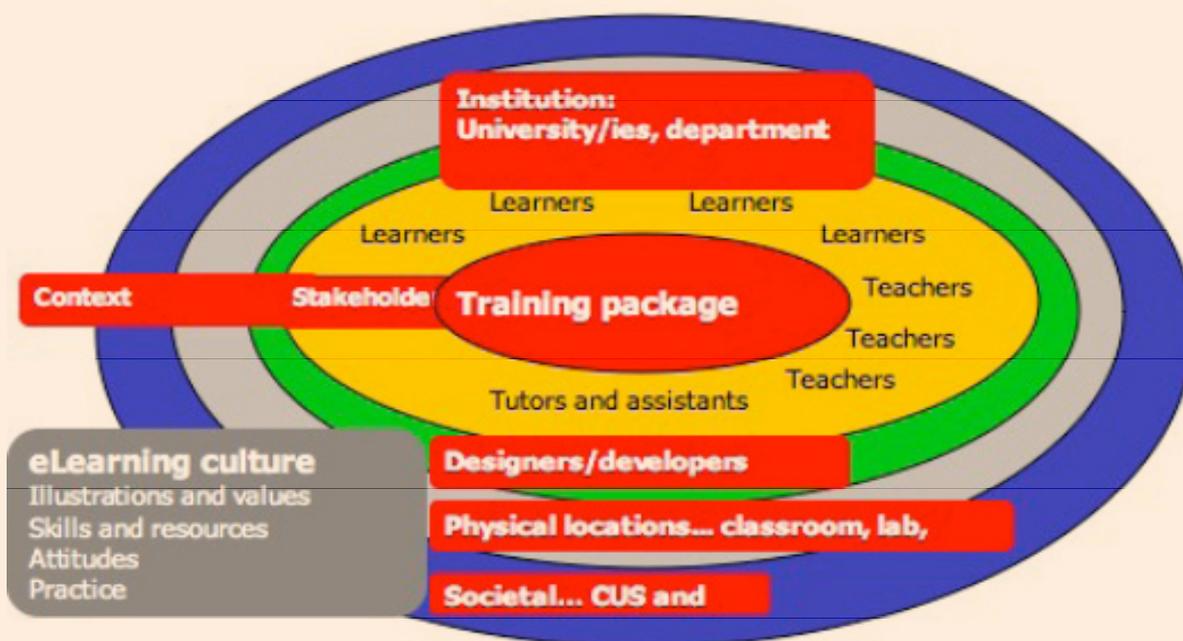


Figure 1: J. Viens – An implementation model ²

1 Platteaux, H., Hoëin, S., & GroupeGirafe. (2005). Principes d'une formation sur les facteurs de succès d'un cours e-Learning. Paper presented at the Conférence annuelle de l'Association Internationale de Pédagogie Universitaire, Genève 12-14 septembre

2 Deschryver N., Viens J., Peraya D. (2002) Interstices - Projet de recherche et de support à l'intégration des TIC dans l'enseignement supérieur en Suisse, Conférence ICEM (International Council for Educational Media), Grenade, 10/02.

The sheets are broken down by the steps contained in an iterative approach to development, which enables the project manager or teacher to link the points to be considered and the project management stages more quickly. They are presented in the form of tables to be filled in, broken down into six dimensions:

- The teaching dimension
- The technological dimension
- The discipline (relative to the field of teaching)
- Mediatisation and media conversion (digitising the content and method of communication)
- Organisation and management
- Financing and policies

These six dimensions are themselves viewed from three different perspectives, the course, the curriculum and the institution. These three dimensions are used to identify the level at which the stakeholders concerned or the decisions to be taken are located. The structure of the sheets makes it possible to identify the aspect concerned, the questions to be asked, and the main stakeholders affected by each of these questions.

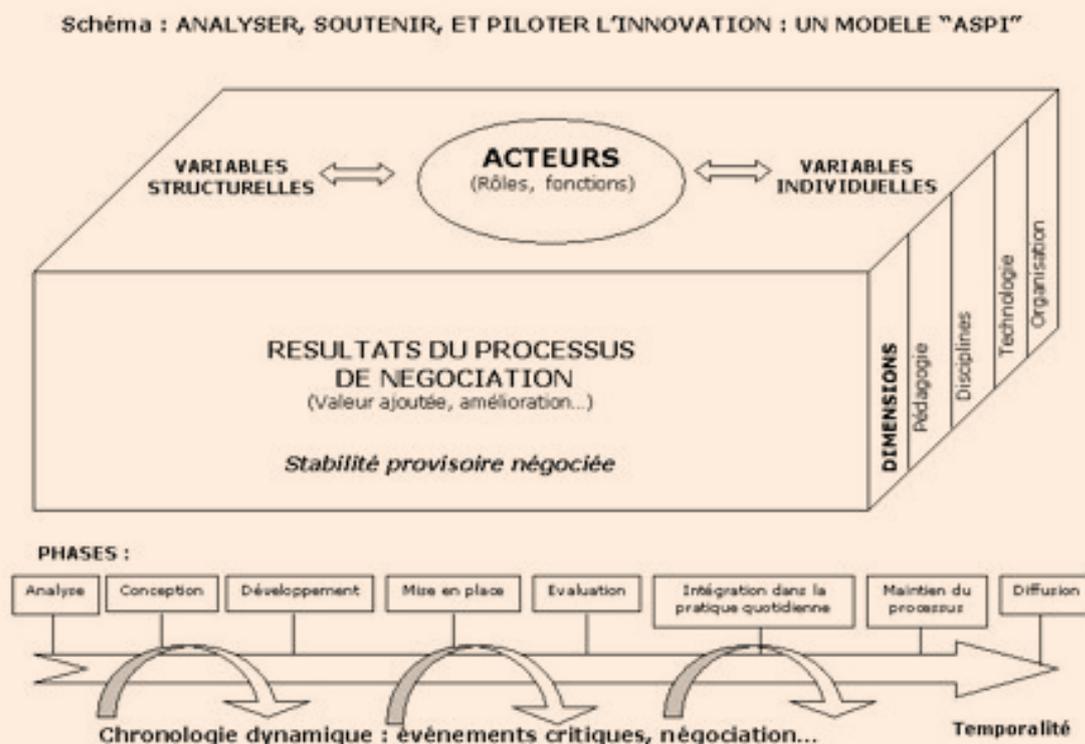


Figure 2 : The ASPI model Project objectives ³

Project objectives

First of all, it is essential to identify the needs the project has to meet. By identifying and formulating them according to the level of the course, curriculum and institution it will be possible to refine the development and implementation strategies, and also to take the expectations of the stakeholders into account. It is for this reason that an additional sheet containing the project objectives at each level can be found at the beginning of this document so that it can be consulted easily throughout the project.

³ Peraya D. & Jaccaz B. (2004). Pilotage de l'innovation: Cadre de référence et fiches conceptuelles. EQUDEL- Projekt, Online document accessible en ligne à l'adresse: <http://tecfaseed.unige.ch/equel.php>

Cross-functional questions and the five stages of the approach in the form of decision support sheets

We have produced some decision support sheets to help in monitoring the various phases and stages. These will enable the stakeholders to ask themselves the right questions at the right time and to retain an audit trail of decisions taken. Certain points for consideration are common to several, or even all stages of the project. To some extent, they are the conditions required (but not sufficient) for its success. It should be noted that these sheets do not offer solutions. It is still necessary for those in charge of projects to acquaint themselves fully with the context of the innovative teaching method in a university environment and with the essentials of project management. In particular, an online course is much more than simply putting a traditional course on line, and further consideration must be given to both the contents and the interaction between the stakeholders, teachers and students.

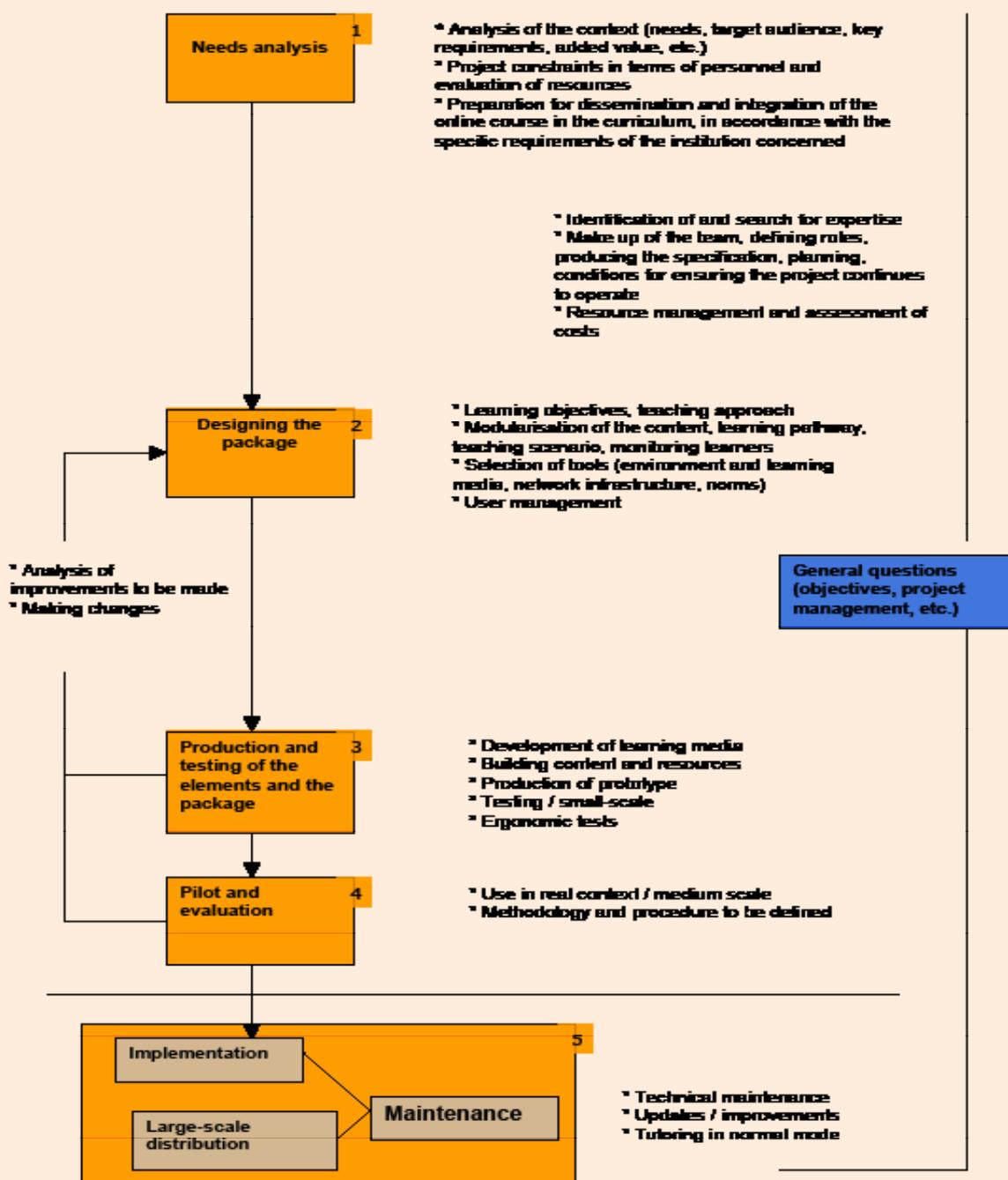


Figure 3 : Overview of the stages to be considered

We would like to point out once again that this tool has benefited from financial support by the Campus Virtuel Suisse and has been produced by RISET - the Inter-faculty «Teaching and Technologies» Support Network of the University of Lausanne. Supplementary information is available in the brochure «Technologies in support of teaching at the University», available from: <http://www.unil.ch/riset>. Finally, the University of Lausanne is expected to have developed it as a software program by 2008.

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Decision support sheets

Project objectives

Each project satisfies one or more needs which must be made clear at course, curriculum and institution level. On the one hand, objectives drawn up in this way will act as points of reference for the multiple decision consistency checks which will be taken over time. On the other, they will enable any potential conflicts or opposing constraints resulting from the demands of the various levels to be identified. This initial work will be supplemented by regular reference to, and updating of, this sheet.

At course level

At curriculum level

At institution level

General questions

Certain critical questions are common to several, or even all stages of the project. To some extent, they are the conditions required (but not sufficient) for the success of the project.

Those concerned should therefore update their strategies from time to time and ensure that their knowledge is up to date as well.

Level A: the course			
Description	Comments	Roles mainly involved	Your analysis
Clear objectives meeting a need	An eLearning project is most likely to succeed if it addresses a real problem or a clearly identified teaching objective.	Teachers Project manager	What needs does your project meet ? -
Knowledge of overall stages of development of an eLearning course	Development of an eLearning course is based on a certain number of clearly identifiable stages. Even if professionals do not agree on all points, the literature offers a limited number of models.	The whole team	What stage is it your team at ? Do you need to consider organising an awareness session on this subject ? -
Knowledge of project management concepts and methods	eLearning projects do not need to be managed using very sophisticated methods. However, basic professional project management methods can help to prevent problems.	Project manager	What is it your fundamental approach to management ? Do you have the necessary expertise and tools ? -
Formative evaluation process	Development of an eLearning course is an iterative process (development, test, evaluation, modifying the package). At each stage, the work done must be evaluated and practices must be changed as a result of what has been learnt.	Project manager	Have you notified your team about the need for formative assessment ? What forms will this take ? -

Level A: the course

Description	Comments	Roles mainly involved	Your analysis
Involvement of students and teachers	By involving teachers and students in the various stages of the project you can assess the expectations of future users and adapt the package to their preferences, expertise and requirements.	Project manager Designer Teachers	Do you know the users of the future system well ? How do you envisage collaborating with them ? At what stages of the project ? -
Sizing the project, according to the human, financial and technological resources available	It is particularly important in an eLearning project to design and size the project according to the resources available. The project manager is responsible for checking that the decisions and development plans are achievable within the limits of the expertise, time and finance available to him.	Project manager	Have you established a precise list of the resources (expertise, time, equipment, etc.) available to you ? -
Balance between technological and teaching choices	Development of an eLearning project must have a real teaching benefit (creating learning situations that are difficult to do in class, suggesting alternatives, etc.) and/or practical benefit (ease of use, flexibility, reduction in routine tasks, etc.).	Project manager Designer	Are the technological choices motivated by teaching and/or practical needs ? -
Relationship between cost and teaching contribution	The investment in time and financial resources must be justified by a real teaching and/or practical contribution.	Project manager Designer	What is the added value of the project ? What is the estimated cost per user ? -

Level A: the course

Description	Comments	Roles mainly involved	Your analysis
Knowledge of the financing bodies' evaluation criteria	It is important to have a good understanding of the financial context which the project is part of and to identify the criteria which will be used to evaluate it (and possibly to obtain finance subsequently).	Project manager Teachers	Who is financing the project and what are the expectations? Are the evaluation criteria known? -

Level B: the curriculum

Description	Comments	Roles mainly involved	Your analysis
Inclusion of the course produced in the curriculum	In an institution such as a University, courses must be part of a curriculum. If this is not the case, negotiations must take place from the beginning of the eLearning project to include the product produced in the official programmes.	Teachers	Does the course form part, or will it form part, of an official teaching programme? Will the course be credited with ECTS points? -
Involvement of teachers and Faculty administrators	An eLearning project is most likely to succeed and last if it is known and supported by the Faculty.	Faculty Teachers Project manager	How can people be made aware of the project? Do any steps need to be taken? -

Level C: the institution and its context

Description	Comments	Roles mainly involved	Your analysis
Financial and political support	It is important to involve the various levels of the institution (Rector's Office, Faculties, Schools, etc.) in the decisions about financing and project support.	The Administration of the institution	At what level are support decisions taken in the institution? Do you understand the decision making procedures? -

Level C: the institution and its context

Description	Comments	Roles mainly involved	Your analysis
Inclusion in an overall eLearning development strategy	The durability of an eLearning project partly depends on the extent to which it conforms to the overall strategy for the use of teaching technologies in the institution. It is the project manager's responsibility to identify the guidelines in force in his context or to ask the administration about this.	Project manager Designer	Do the choice of project technologies and teaching methods form part of the eLearning strategy of the institution ? -
Availability of a permanent technical infrastructure	After the initial development phase, use of an eLearning course requires a technical infrastructure in order to: <ul style="list-style-type: none"> · carry out improvements and updates · add new developments · manage the users 	Teachers Project manager	Do any discussions need to be held with the technical departments of the institution ? -

Step 1: Needs analysis

Points for consideration, depending on various dimensions

1 Teaching dimension			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Define the aims of the course	What problems must this course address? What are the teachers' expectations?	Project manager and teachers	
Analyse the needs of the learners for the course	Are there any particular difficulties which the use of technologies could alleviate?	Teachers Designer	
Curriculum level			
Observations by students and the teacher about the learning process.	Do the teachers feel ready to change their approach? Is there a risk of the students concerned developing any resistance?	Teaching adviser, designer	
Assessment of the degree of autonomy of students in the learning process	Does a gradual awareness of autonomy need to be considered?	Teaching adviser, designer	
Institution level			
Quality and relevance of teaching support	If your institution has a department offering advice on teaching, have you consulted it? What services does it provide?	eLearning adviser, teaching adviser	

2 Technological dimension			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Familiarity of teachers with the technologies	Will the teachers easily adapt to a technological environment?	Project manager Teachers	
Curriculum level			
Familiarity of students with the technologies	Will the teachers easily adapt to a technological environment ?	Project manager Teachers	
Institution level			
Quality and relevance of technological support	Who is in a position to support your project ? What services can they provide you with ? Who will check that your technical decisions are consistent with the general IT policy of the institution ?	Designer Developers	

3. Discipline			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
List of skills for possible mediation	How much content must be produced ? Is online distribution the best option ? Why ?	Teachers Designer	
Analysis of the main difficulties	Which learning processes should be emphasised ? Do certain parts of the material present particular difficulties which the technology could help overcome ?	Teachers Designer	
Explanation of the skills expected of students during and at the end of the course	Once the skills have been acquired, what must the student be capable of doing with them ?	Teachers Designer	
Curriculum level			
Understanding of the constraints connected with the number of teaching hours	Is the material and the work expected achievable in the time allocated for this course ?	Teachers	
Understanding of the constraints connected with examinations	Is assessment of students' work compatible with regulatory requirements ?	Teachers	
Institution level			
Analysis of complementarity with other packages available	Is this course in competition with other forms of teaching ? Are there any others that the students could follow instead ?	Teachers	

4. Mediatisation and media conversion

Description	Relevant questions	People mainly involved	Your analysis
Course level			
List of concepts for which a multimedia format is desirable	Is the technological contribution tangible in every case? How much material must be developed and to what level of difficulty?	Teachers Designer	
List of learning activities required for students to be able to absorb these skills.	How will the students learn this material? What work do the teachers expect of them?	Teachers Designer	
List of teachers' needs	How do teachers envisage monitoring the students' work? Are they aware of the specific requirements of working online?	Teachers Designer	
Curriculum level			
Institution level			
Knowledge of the technological context	Where will the students work? What constraints does the institution impose (types of computer, banned formats, etc.)?	Project manager Designer	

5. Organisation and management			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Awareness by teachers of the importance of this stage	Do the teachers understand that the rest of the project depends on this needs analysis ?	Project manager	
Involvement of teachers	Are the teachers aware of how much work this entails ? Are they ready to see their role change ?	Project manager	
Identifying the people with the necessary skills	If the teachers are not the authors, who are the competent people to be contacted ? Do the authors have a common view and understanding of the material ?	Project manager	
Curriculum level			
Institution level			

6. Financing and policies			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Match between resources available and identified needs	Does the needs analysis match the available resources ? Do the objectives need to be resized or reformulated ?	Project manager Designer Teachers	
Curriculum level			
Analyse the options for integration in the curriculum	Is the Faculty ready to recognise the course as being part of its package ? Can the teacher decide this by himself ?	Teachers	
Inform the faculty if discussions are necessary	Does there need to be provision for making possible decision-makers aware of the issues associated with eLearning ?	Teachers Project manager	
Analyse the potential change to the study plans concerned	Are the curricula fixed ? Does allowance have to be made for important changes in the next few years (length of course, level of studies, requirements, etc.) ?	Teachers Designer	
Institution level			
Understanding the expectations of the institution	Do the administrators of the institution have any special expectations or requirements connected with this course ?	Project manager	

Step 2: Designing the package

Points for consideration, depending on various dimensions

1 Teaching dimension			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Dealing with the characteristics of the target audience(s)	How are the characteristics of the target audience(s) dealt with (consistency, level of difficulty, etc.) ?	Teachers Designer Technical teaching adviser	
Creation of one or more learning scenarios	The aim of a scenario is to define the way in which student(s) will work throughout the course with the resources at their disposal. Have you described how students interact, or how students and teachers interact ? Do your scenarios take the planned learning time into account ?	Teachers Project manager Technical teaching adviser	
Sequencing of learning activities depending on the list of skills and competencies to be acquired	Do the scenarios allow for progressively more difficult activities ? Do the students have the ability to carry out the work using the skills referred to ?	Teachers Designer Technical teaching adviser	
Tailoring the design to the teaching style of the people involved	Any change in practice must be supported. The more radical the change, the more difficult it will be for the teacher to take it on board. What support have you made provision for ? Does the design of the package satisfy the students' needs and options?	Designer Technical teaching adviser	
Development of the teachers' and/or tutors' role during the course	The dynamism of an online course relies partly on the commitment of the teachers to interaction. Does every teacher and/or tutor know exactly what is expected of him ? Does he have the means to do it ?	Teachers Designer Technical teaching adviser	
Taking students' learning practices into account	Any change in practice must be supported. The more radical the change, the more difficult it will be for students to benefit from the package provided for them. What support procedures have you planned ?	Teachers Technical teaching adviser	

1 Teaching dimension			
Description	Relevant questions	People mainly involved	Your analysis
Match between the package and the planned approach to evaluating it	Will the students be capable of passing their exams after using the package ?	Teachers	
Curriculum level			
Taking the requirements of the curriculum into account	Is the planned course in line with the requirements of other courses on the curriculum ?	Teachers Designer	
Institution level			

2 Technological dimension			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Selection and/or description of the technologies of the training being considered	Have the tools being chosen in line with the needs of the learning scenarios ?	Designer Producers and technicians Technical teaching adviser	

2 Technological dimension			
Description	Relevant questions	People mainly involved	Your analysis
Curriculum level			
Consistency with the other packages on the same curriculum	Are other courses on the same curriculum already based on the use of training technologies ? Is harmonisation possible, to limit the deterrent effect on students of having to learn several tools ?	Project manager Designer Technical teaching adviser	
Institution level			
Availability of prospective infrastructures and technologies	To ensure that the course produced can be used for a long time, care should be taken to ensure that the prospective technologies will be available and maintained beyond the production stage. Does any coordination need to be carried out with the IT department of the institution ?	Project manager	

3. Discipline			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Researching past experience	Have similar schemes already been produced and are they available for consultation ? Do you know the results of any assessments ?	Designer Teachers	
List of existing objects	Can production costs be reduced by using existing objects (documents, animations, applets, questions, scenarios, etc.) ?	Teachers Technical teaching adviser Archivist	

3. Discipline			
Description	Relevant questions	People mainly involved	Your analysis
Explanation of how the contents are handled	Do all the stakeholders concerned fully understand the specific requirements of the discipline being taught ? Are the financial resources of the project divided evenly between production of content (text, multimedia, tests, etc.) and preparation of learning activities based on interactions (man-machine, student-student or student-teacher/expert) ?	Teachers Project manager Designer	
Curriculum level			
Institution level			

4. Mediatisation and media conversion			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Interface and navigation elements	Does the production plan include the design of interface and navigation elements, and also the possible adaptation of any software and objects available ?	Designer Producers and technicians Designer	

4. Mediatisation and media conversion

Description	Relevant questions	People mainly involved	Your analysis
Ways of getting students involved in and participating in learning activities	Do(es) the planned scenario(s) enable(s) students to participate actively in the course ? Are the activities required varied enough? What forms will the interactions needed for learning take ?	Teachers Technical teaching advisers	
Type and design of media required	Have you defined what content must be presented as printed content, interviews, tests, multimedia presentation, video, etc. ?	Designer	
Inclusion of possible need for translation in the design of the elements and the production plan	If translations of the course and the objects produced are required, have you included this constraint in the design of the elements and the projected breakdown of tasks ?	Designer	
Curriculum level			
Institution level			

5. Organisation and management

Description	Relevant questions	People mainly involved	Your analysis
Course level			
The course objectives are known and are shared by all the project stakeholders	Do the project designers and producers have access to the needs analysis ? Have they understood the objectives and expectations ?	The whole team	

5. Organisation and management			
Description	Relevant questions	People mainly involved	Your analysis
Tailoring the package to the resources available	Media production and/or software development is often over scoped, and the time for supervising students underestimated. Is there a balanced breakdown in your project ?	Project manager Designer	
Identifying the training needs of the project stakeholders	Do the teachers, team members, students and administrative staff need additional training to work effectively ? What training or awareness strategies are envisaged ?	Project manager Technical teaching adviser	
Identifying the need for outsourcing production elements	Have you analysed the skills available and do they cover the needs of production ? If not, have you drawn up an accurate list of the items which must be outsourced ? Is collaboration with other projects possible ? Are any adjustments needed ?	Project manager	
Drawing up the production plan	The production plan is an important document for controlling the project duration and cost. Is yours is sufficiently detailed ? Have the stages and foreseeable difficulties been identified ? Have you prepared strategies for critical areas ?	Project manager	
Curriculum level			
Institution level			

6. Financing and policies			
Description	Relevant questions	People mainly involved	Your analysis
Course level			
Possible tailoring of the regulations	Are the students' methods of working compatible with current regulations ?	Project manager Teachers Dean's Office	
Degree of dependence of the course vis-à-vis the teachers involved	Is the course designed for the teachers involved themselves or as a stand-alone package ? If so, how will the workstations needed for long-term use of the package be financed ?	Project manager Teachers Dean's Office Rectorat	
Curriculum level			
Adaptation of hours and procedures	Will the way the course is organised need to be altered to enable students to undertake the work required ?	Project manager Teacher Dean's Office	
Institution level			
Appropriateness of the package for the locally available infrastructures and resources	Are IT rooms needed ? If yes, are they available ? If not, has the institution committed to finance new rooms ?	Project manager	
Request for resources and services from the institution	Do you know what resources are available from the institution? Have you defined a way of collaborating with central IT services ? Do other projects have similar needs which would enable the resources to be shared ?	Project manager	

6. Financing and policies

Description	Relevant questions	People mainly involved	Your analysis
Ensure that long-term ownership of the IT tools is determined	Have you established if the project will use the institution's available IT resources (platform)? If it needs general resources not provided by the institution, or specific resources? Have solutions already been found for this?	Project manager	

Step 3: Production

Note: Good project management ability is necessary at this stage in particular. These aspects are not listed here because they are not specific to eLearning projects. However, reference is made to them in the sheet concerning general questions.

Separation of the dimensions into separate levels (course, curriculum and institution) no longer appears to be necessary for this phase. Points à considérer, selon diverses dimensions

Points for consideration, depending on various dimensions

1 Teaching dimension			
Description	Relevant questions	People mainly involved	Your analysis
Ensure that there is a match between what the teacher expects and achieves	Are the proposed developments consistent with the teachers' expectations ? Are the teachers involved in the process ?	The whole team	
Implementation of the teaching scenario	Is the teaching scenario respected and does it follow the teaching criteria ? Does the scenario have sequences of activities and corresponding instructions ?	Project manager	
Match between the granularity of the «objects» produced and the planned study time	Are the learning sequences achievable in the time planned for studying the course through distance-learning ?	Project manager	

2 Technological dimension			
Description	Relevant questions	People mainly involved	Your analysis
Be clear about technological developments and possible costs of adaptation	Do the technologies chosen enable content to be developed, displayed and managed simply ? Do they also enable the activities and interactions provided by the teaching scenario to be changed and reused ?	Project manager Developers and technicians Designer Technical teaching adviser	

2 Technological dimension			
Description	Relevant questions	People mainly involved	Your analysis
Monitor experiments and developments in the field of training technology	Do the people involved in the project have a overview of how technology is used in teaching ?	Project manager Developers and technicians Designer Technical teaching adviser	

3. Discipline			
Description	Relevant questions	People mainly involved	Your analysis
Verification of the scientific value of the data provided	What procedures have been put in place to ensure consistency in the levels of difficulty, quality and length of texts, and whether they are in line with the teaching objectives ?	Teacher Project manager	
Verification of the quality of the multimedia content	Do the multimedia elements chosen (illustrations, demonstrations, simulations, exercises, etc.) have real pedagogical value ?	Teacher Project manager Technical teaching adviser	

4. Mediatization and media conversion			
Description	Relevant questions	People mainly involved	Your analysis
Installation and subsequent testing of object models and of a prototype course to validate the navigation and ergonomic elements	What test procedures are planned ? Are the results reliable ? Has the production plan been modified as a result ?	Project manager	

4. Mediatisation and media conversion

Description	Relevant questions	People mainly involved	Your analysis
Ensure that the elements produced are displayed consistently, especially if several developers are working together	Have you defined a graphic charter ? Did it form part of the prototype testing ?	Project manager Technical teaching adviser	
Possible adaptation of shared objects and resources with other projects	Are the external resources that are of interest to you compatible with your teaching scenario ? Or do they need to be tailored ? Has the production plan been modified as a result ?	Project manager Developers and technicians	

5. Organisation and management

Description	Relevant questions	People mainly involved	Your analysis
Roll-out of the production plan: obtain the content in the timescale and form required, ensure availability of the stakeholders when required, analyse the impact of potential delays, etc	Is the management of the project going smoothly; if not what strategy have you put in place to remedy it ?	Project manager	
Ensure communication between the stakeholders involved, ensure they all have access to the production plan and are committed to it	Is there effective and adequate communication between the project stakeholders ? Is the team dynamic, involved in the joint effort ? What can be done to improve relationships in the group ?	Project manager	

5. Organisation and management

Description	Relevant questions	People mainly involved	Your analysis
«Translation» of the teacher's expectations into operational terms for the producers and explanation of the technical constraints for the teacher	Are the expectations and constraints of the various stakeholders well understood and have they been taken into account ? Which potential conflicts have not been sorted out ?	Project manager	
Flagging deviations, problems interpreting the elements of the production plan	What action will the coordinator take to flag any problems with the quality of the work or lack of understanding between the various stakeholders ?	Project manager	
Early flagging of developments that are too expensive or of skills lacking	Is the production plan detailed enough to avoid overpending on production ? Does it need to be refined ? Is any additional training being considered or is there any need to call in external contributors ?	Project manager	

6. Financing and policies

Description	Relevant questions	People mainly involved	Your analysis
Verification of the consistency of production and project evaluation criteria	Are the members of the team aware of the project evaluation criteria? Have they taken them into account? What measures have been taken to improve observance of the criteria for the success of the project, as defined by those responsible?	Project manager	

Step 4: Pilot and evaluation /Dimensions to be measured

This stage is concerned primarily with testing and evaluating the package, and will serve to gather the data enabling those aspects which need improving to be improved. These data must then be interpreted and the package readjusted as a result.

1. Teaching dimension: data collection			
Subject	Aspects to be evaluated	People mainly involved	Your analysis
Course level			
Suitability of the product produced	<ul style="list-style-type: none"> Assessment of the relevance of the teaching objectives Match between the product developed and the teaching scenario Relevance of the links between the product and the entire course 	Teaching adviser Teachers Student-testers	
Take-up of the package by the teacher	<ul style="list-style-type: none"> Level of satisfaction Adoption of the concept and of the tools of the course Consistency between on-line and on site teaching (content, instructions) Ability to intervene to tailor course elements if required Perception of students' progress and of the quality of their work 	Teaching adviser Teachers Student-testers	
Feasibility of the proposed activities and interactions	<ul style="list-style-type: none"> Similarity between planned study time and time actually spent by students Volume and suitability of the activities and resources provided for students Usefulness of instructions for the learning process 	Teaching adviser Teachers Student-testers	
Take-up of the package by the students	<ul style="list-style-type: none"> Level of satisfaction, enthusiasm, discouragement, abandonment, etc. Time and difficulty of adapting to new practices and requirements 	Teaching adviser Teachers Student-testers	
Success rate of students in examinations and tests of knowledge	<ul style="list-style-type: none"> Comparison between the success rate in tests and those of other courses with similar content Checking the teacher's expectations 	Teacher Designer	

1. Teaching dimension: data collection			
Subject	Aspects to be evaluated	People mainly involved	Your analysis
Curriculum level			
Institution level			

2. Technological dimension: data collection			
Subject	Aspects to be evaluated	People mainly involved	Your analysis
Course level			
Ergonomics and usability	Verification and consolidation of the data gathered during the prototype tests.	Project manager Designer	
Reliability of the technologies selected	Multi-user access, recovery from possible breakdowns, bandwidth, availability of equipment, ease of access off site	Project manager Central IT services	
User management	<ul style="list-style-type: none"> Effectiveness of the user management procedure Allocation of responsibilities Possible/necessary integration with the other current procedures in the institution 	Project manager Central IT services	

2. Technological dimension: data collection

Subject	Aspects to be evaluated	People mainly involved	Your analysis
Curriculum level			
Institution level			
Consistency with the institution's IT services care management policy	<ul style="list-style-type: none"> · Regard for the technical constraints of the institution · Compatibility with safety procedures · Allocation of responsibilities in the event of a breakdown 	Project manager Central IT services	

3. Discipline : data collection

Subject	Aspects to be evaluated	People mainly involved	Your analysis
Course level			
Consistency of degrees of difficulty	<ul style="list-style-type: none"> · Balance in sharing difficulties between the proposed content and learning activities 	Teaching adviser Teachers Student-testers	
Content consistent with the teacher's expectations	<ul style="list-style-type: none"> · Match between the content and the learning activities produced and the teaching objectives set by the teacher 	Teachers	
Content consistent with examinations	<ul style="list-style-type: none"> · Match between the content and the learning activities produced and the requirements of the teacher and/or the institution as regards auditing of skills 	Teachers	

3. Discipline : data collection			
Subject	Aspects to be evaluated	People mainly involved	Your analysis
Curriculum level			
Cross checking and links to other courses	Check for relevance of the course content and activities compared to other courses offered by the institution	Faculty Teachers	
Institution level			
Inclusion in study plans and validation of ECTS credits	<ul style="list-style-type: none"> • Check for consistency of the course produced in relation to current accreditation procedures in the institution • Registration of the course in the study plans 	Faculty Teachers	

4. Mediatiation and media conversion: data collection			
Subject	Aspects to be evaluated	People mainly involved	Your analysis
Course level			
Flagging problems in processing information (illustrations, demonstrations, simulations, etc.)	<ul style="list-style-type: none"> • Comprehension, clarity of the message, effectiveness of instructions for use or notes • Aesthetic or cognitive overload • Teaching purpose • Inclusion in the teaching scenario • Balance between the various types of objects (texts, activities, display elements, questions, etc.) 	Teaching adviser Teachers Student-testers	

4. Mediatisation and media conversion: data collection

Subject	Aspects to be evaluated	People mainly involved	Your analysis
Appropriateness of the tutoring (supervising students' work)	<ul style="list-style-type: none"> Volume of tutor's work Completeness and usefulness of the interactions Perception of the role of the tutor by the students Perception of the role of the tutor by the teacher Match between the concept of tutoring and the personality of the tutor(s) 	Project manager Teaching advisers Teachers Student-testers	

5. Organisation and management

Reminder: an assessment of the entire project must be made, but it is not linked to the pilot phase of the course

Description	Relevant questions	People mainly involved	Your analysis
Course level			
Analysis of the data gathered during the pilot	<ul style="list-style-type: none"> Modifications to be made to the design of the product, various improvements to be made Tailoring of the content and activities Tailoring students', tutors' or teachers' training activities to use of the product 	The whole team	
Modifications to the work plan	<ul style="list-style-type: none"> Estimate of the work Revision of the work plan 	Project manager	

6. Financing and policies

Description	Relevant questions	People mainly involved	Your analysis
Course level			
Analysis of the impact of the changes needed on the financial resources of the project, detected during the pilot phase	<ul style="list-style-type: none"> • Cost estimates • Adaptation of the budget • Optional search for additional funding 	Project manager	
Curriculum level			
Integration into the academic curriculum	<ul style="list-style-type: none"> • Verification of compliance • Administrative aspects • Possible discussions 	Project manager Teachers Faculty	
Institution level			
Possible modification of services provided by administrative and IT departments	<ul style="list-style-type: none"> • Identification of needs • Possible discussions 	Project manager University authorities	

Final step: Implementation, distribution, maintenance

The closure of a project is a milestone for the future of the product. These tasks are often underestimated and teams risk being short of time. The project manager is responsible for anticipating and delegating the many operations involved and drawing the team's attention to the importance of adequate planning.

Priority tasks

1 Teaching dimension			
Description	Priority tasks	People mainly involved	Your analysis
Course level			
Product documentation	<ul style="list-style-type: none"> Design and use of the product Communication of the teaching scenario Integration with the other course components Training new tutors and/or teachers 	The whole team, under the responsibility of the project manager	
Preparation for future developments	<ul style="list-style-type: none"> Scaling the package according to the number of students Procedures for adaptation of the teaching scenario 	Project manager	
Curriculum level			
Verification of the inclusion of the course in the study plans	<ul style="list-style-type: none"> Possible current discussions to be ended Handover to the institution's permanent staff 	Project manager	
Institution level			

2 Technological dimension			
Description	Priority tasks	People mainly involved	Your analysis
Implementation	<ul style="list-style-type: none"> • Description of half yearly or yearly re-initialisation routines • Allocation of responsibilities • Archiving • User management • Possible customisation etc. 	Project manager	
Product documentation	<ul style="list-style-type: none"> • Product selection and technological constraints • Maintenance procedures • Adaptation and change procedures • Enhancements and potential problems 	The whole team, under the responsibility of the project manager	
Preparation for future developments	<ul style="list-style-type: none"> • Clarification of responsibilities • Optional maintenance contracts 	Project manager	
Sending the product to general IT departments	<ul style="list-style-type: none"> • Integration into the institution's security system • Link to the institution's administrative databases • Allocation of responsibilities, setting up service contracts, etc. • Handling breakdowns, backup, etc. • Managing the impact of changes in technology on the product 	Project manager	

3. Discipline			
Description	Priority tasks	People mainly involved	Your analysis
Course level			
Product documentation	<ul style="list-style-type: none"> • Change procedures • Procedures for adding elements or content 	The whole team, under the responsibility of the project manager	

3. Discipline			
Description	Priority tasks	People mainly involved	Your analysis
Preparation for future developments	<ul style="list-style-type: none"> · Identification of elements liable to change · Preparation of content and activity change procedures 	Project manager Teachers	
Curriculum level			
Monitoring changes to study plans	Allocation of responsibilities	Project manager	
Adaptation of examination procedures	Allocation of responsibilities	Project manager	
Institution level			

4. Mediatisation and media conversion			
Description	Priority tasks	People mainly involved	Your analysis
Course level			
Product documentation	<ul style="list-style-type: none"> · List of objects which make up the product · Authors' and developers' contact details · Change procedures · Optional maintenance contracts 	The whole team, under the responsibility of the project manager	
Preparation for future developments	<ul style="list-style-type: none"> · Allocation of responsibilities · Procedures for distribution and re-use 	Project manager Teacher	

Curriculum level			
Institution level			

5. Organisation and management: typical project close-out procedures (refer to a good manual)			
Description	Priority tasks	People mainly involved	Your analysis
Course level			
Evaluation of the project and its management	Summary document	Project manager	
Preparation for future developments	Development plan	Project manager	
Distribution of responsibility matrix	Allocation, discussion and communication with the various stakeholders involved about all responsibilities and procedures regarding future use of the product	Project manager	
Distribution of the product	Control documents managing authors rights terms of use and sale of the product	Project manager	
Project close-out Disbanding the team, etc.	Procedures for use	Project manager	

5. Organisation and management: typical project close-out procedures (refer to a good manual)

Description	Priority tasks	People mainly involved	Your analysis
Curriculum level			
Obtaining guarantees for use of the product in the medium-term	Outcome of negotiations, contracts, formal arrangements and circulation of agreements, etc.	Teacher (Project manager)	
Institution level			
Delivery of the product to the various stakeholders involved	Hand over of coding, documentation, procedures, responsibilities, etc.	Project manager	
Delivery of the final report, in accordance with the terms of the contract	<ul style="list-style-type: none"> · Editing of final report, if required · Delivery to the relevant authorities 	Project manager	

6. Financing and policies

Description	Priority tasks	People mainly involved	Your analysis
Course level			
Estimate of planned maintenance costs	<ul style="list-style-type: none"> · Preparation of maintenance budget 	Project manager	
Provision for further financing if necessary	<ul style="list-style-type: none"> · Preparation of data required · Raising awareness of the stakeholders involved 	Project manager	

6. Financing and policies

Description	Priority tasks	People mainly involved	Your analysis
Curriculum level			
Institution level			
Communication with the technical teaching centre	Delivery of data about the project, so as to enable the sharing of skills and subsequent monitoring of the course		

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