Chapter 7
The production process: lights, camera…!

In fact, the production process already started in Chapter 5 and went on to Chapter 6. Design is a key element to the production of a course. Only for analytical purposes, I make the distinction of this aspect which could be called "production as such".

As in every creative process, there can be many changes taking place between the initial design and the final product. Once we embark on the creative adventure, many things that were not initially anticipated can happen. For example:

- An idea which seemed to be great does not work. We create a perfect communication system but there is no convincing way of implementing it. The character we imagined does not seem to take shape, the metaphor we used cannot be understood. We cannot obtain the statements we expected, an expert who promised to come did not show up. A technical solution we counted on is no longer available. Etcetera.
- An idea we had not thought of comes up. A material we did not know about turns out to be excellent and only requires some little adaptation to suit a big part of the job. A supporting character we were going to add ends up being the main one. A new technological solution simplifies our whole work. Etcetera.

Just like a novelist, sometimes our characters "force" us to write things we would not think of in order to follow their own logic. Or, using a more accurate comparison: between a film's script and the final film there can be a large distance. Shooting and editing imply an adventure that cannot be fully planned by the script.

Moreover, there is no single production plan possible. This depends a lot on the type of course to produce and the equipment available. The process I am

about to describe is simply a general scheme, it can have several variations. Every institution should create its own processes, which will not be always the same for every course.

Better to track than to repeat

I mentioned above the possibility of finding some old material, already produced, regarding a specific topic. I did not talk about this aspect at the beginning of Chapter 5 but it can certainly affect the initial decision to prepare a course. I mean the search for other courses or materials already available that may meet the same educational needs and demands we are concerned with, or at least part of them.

Too often we find out late that there is a piece of work done which could have made us doubt of the sheer convenience of embarking on a new effort when there is something so similar available. Or, at least, take that precedent as a valuable contribution that will save us a lot of work.

Among these precedents we may also find competitors. There may be other offers that aim at satisfying the same demand or need, or very similar ones. It will be necessary to consider if what we are offering is different in some way, if it is indeed worthy to compete and if we are in good conditions to do so.

In any case, a team that begins to prepare a DL course should always start by doing good research about precedents. Producing DL materials can be really expensive and it is a shame to repeat efforts once and again. The Internet has become a precious aid to track down precedents. However, it is not always easy to find what we are looking for and the Internet has not got answers for everything. If you are not good at doing research or you do not have time, then resort to your librarian. Such professionals are usually true **experts in the search** of both paper and electronic documents.

It can also be very helpful to start building a **materials bank**, gathering together those materials produced for DL purposes and others that may be of use, including self-produced documents and public ones. (We have already mentioned simulation programmes available in the Internet). They may be available on CD, on a Web page or an Intranet, etc.[1]

1 Like the one prepared, for example, by SENAI-SC (2004a). A continental effort in this sense is the one made by the European Ariadne Foundation (cfr. Ariadne, 2000) and in general by the technologies and standards of "Learning Objects" that intend to facilitate the sharing of materials for teaching and learning among people, groups or institutions.

"Packed" or progressive production?

Once we are sure –or at least almost sure– that we are not going to repeat something that has already been done, we set out to design our course, always taking into account the four core aspects we mentioned in Chapter 5 regarding the subject, pedagogy, communication and technology. This is how we draw up our general plan for the course.

Maybe the plan already made it clear, but this might be the time to make an important decision. Will our course be fully or partially "packed"? What I mean is choosing some of these options:

- *"Packed" course:* All materials are produced before students "arrive". The course does not start until all the material is ready.
- *Non-"packed" course:* On the basis of a general plan, materials are produced as the course advances and in view of the needs of the group or groups and the people involved. It is the most similar thing to preparing "today's lesson", by taking into account what has taken place in previous classes.
- *Progressive production*. It is produced according to modules, topic units, stages, etc. When the first ones are ready the course starts and then production continues, always trying to go a little bit in advance with regards to the time in which each material will be needed. This may allow to start before and not waiting several months until launching a course. It can also be proposed in such a way that it is possible to get to know students and adapt the course to their needs, interests and abilities, like in the previous option. The difference is that we do not only prepare "today's lesson" but "next month's lessons", for example, all together.
- *"Packed" with "holes"*. A group of materials for the whole development are prepared before launching the course, but spaces are left to be filled in according to local or temporary needs. For example: local tourist information in the case of the course for taxi drivers already mentioned. Or case studies that will vary according to time or places. These "holes" allow to adapt the course to local or temporal realities but there is an important common basis that has already been prepared and that does not change. The holes are sometimes the activities that are directed by tutors who have the freedom to add new proposals and materials to the process.

As it may be seen, taking up one option or another depends on practical and pedagogical issues. The idea that every DL course is based on one package of materials that is prepared prior to the course is widely spread, but this can be rather difficult to apply and can have serious pedagogical disadvantages, since it is assumed that all learning processes will be more or less the same in any place and for any group of students and, therefore, all will be needing the same kind of support.

What relationship do you see between "closed material" (Chapter 3) and "packed" course?
Could there be open materials in a packed course?

"Writing"

The time has come to "write". I use the verb between inverted commas because the texts to be produced for a distance learning course will be varied: texts as such, audiovisual and multimedia scripts… That is, we will also be "writing" images, sounds, games, etc.

Not everyone is used to writing in these other languages, so it implies a challenge. A video, for example, is not –or should not be– a text that is then illustrated by images. Graphic material should not make use of images only as "background" that is added to the text in order to make it more reader-friendly. Images are better at saying some things than words. In both cases, it is necessary to "think in images" right from the start; or even better, think in an audiovisual or graphic way, etc. That is, being familiar with the language and its possibilities and working with it in an integral manner.

I have actually seen many educational and DL materials which do not comply with this principle. Materials where it seems to be clear that the illustrator, the audiovisual creator or the communicator in general were not present or came after the subject and educational expert (see Chapter 4) or where the four core aspects of the material are not fully articulated (Chapter 5). Communicators sometimes think of themselves as educators without having much idea of pedagogical issues. This may have apparently attractive results from the point of view of communication but they are pedagogically inefficient. Some examples:

- *Videos where the speaker talks all the time and images illustrate some of the things he says.* To overuse this resource ends up being very tiresome for the viewer because of excessive redundancy between image and sound and the lack of audiovisual narrative. Even documentaries require "telling" something and not only "talking about" something. The audience welcomes any space that arouses their imagination; that suggests associations of certain complexity. In turn, if they are "spoon-fed", they do not want to swallow. (This is precisely an example of what I have said; it forces to associate, in metaphor, the act of eating with that of decoding any "text". This type of metaphor demands more active decoding and therefore it is more interesting for the viewer).[2]
- *Videos where a person speaks non-stop in front of the camera* like a "talking statue". Unless the exhibitor is very charismatic, this will seem absolutely boring and hard to follow, particularly because it goes against our habits as audiovisual audience. Although we are not conscious about it, we are used to different shots (viewing angles and zoom), alternative views from more than one camera, etc. And we are not used to having audiovisual language working as a written text, with long conceptual discourses.
- *A comic in which all characters are only mere pretexts to put text inside "bubbles"*, together with some "dialogues". *"Have you ever heard of weather changes?" "Yes, I heard something about it." "What is it about?" "I'll explain it to you then." "Weather changes are…"* Adding illustrations about storms, desserts or tropical forests does not solve the problem of knowing how to use the means. A comic is, most of all, a story, a narrative. It requires a minimum of action, something taking place. Characters should be characters and not "discourses with faces". Of course there are great exceptions to this rule, but they are precisely exceptions.[3]
- *"Dialogues" to be heard.* Just like in the previous case, they are not actually dialogues; they are rather pretexts to present a discourse. Or they always use the resource of the wise man and the ignorant, the intelligent and the fool, the expert and the uninformed. Somebody asks something he or she does not know and the other one answers, or someone says something wrong and the other one corrects him or her. This kind of structure may cause "char-

2 For further insight on this principle see M. Kaplún (1998).

3 Such as the ones of the Mexican writer Rius, which still keep some kind of narrative.

acters" to look rather unrealistic (they do not get to be characters but schemes without a trace of human complexity). They also leave the audience playing the part of the stupid or ignorant, which can arise rejection in a more or less conscious way.

- *Games which are not to play*, where teaching is more important than playing, turning the game rather boring. Or the other way around. Questions with an obvious answer or questions which are entertaining because of their difficulty but which hardly ever teach anything. Paths on a board game where it is impossible to advance due to an excess of obstacles. The best games tend to be those that can be experienced. They introduce us into a topic and let us take hold of methodological tools through experimenting. Good strategy games are usually like that and they can teach a lot about how to organise some business activity, how to assess health risks at work, etc.[4]

"Writing texts" for DL courses is then a complex task which articulates knowledge about the subject, pedagogy and communication.

The text itself has, in addition, special formal features. Multimedia writing, for example, requires working with more columns than the ones used in film and video scripts in order to give details of the different aspects involved.

For example:

Objective	Student action	On-screen action	Button function	Connections, hyperlinks	Sound	Images

It can also be necessary and useful to have screen drafts in order to visualise the spacial distribution of the different elements (graphics, texts, buttons, menus, etc.).[5]

Usually, this stage of writing comes before the graphic or audiovisual realisation, but there may be variations. For example, when a series of statements are gathered and then a script is written by selecting part of them. Even in this case there must be a previous basic plan or a pre-script where the statements to be gathered or the topics to be studied are specified.

4 An example of this game is *Decisâo* (SENAC, 1999).

5 A format like this one was being used by INA's team in Costa Rica (2005).

Shooting and recording, editing and mounting, design and final art

Depending on the means and the language to be used (graphic, audio, audiovisual), processes will vary. But they will all demand strict technical care. Otherwise, our readers will prefer a good printed text to all our IT or multimedia displays. We are now going to take a look at the points to be borne in mind during this running stage, usually following the "writing" stage.

- *The structure of information*. With IT multimedia materials it is necessary to prepare an appropriate structure where menus, buttons and links work according to a logic that can be easily understood and nice to look at. The idea is that the reader can quickly find what he or she needs and go backwards or forwards without too many complications. In general, it will be helpful to have a general index that allows readers to find the exact point where they are within a module or a course. It will be necessary to take advantage of the hypertext by creating links that may be of use (from a certain word to a glossary, etc.). But if we are working in the Internet we have to be careful with "broken" links, which take us to sites that no longer exist.
- The general structure must definitely be part of the working plan. This also allows us to name it in a creative way, according to the communicational core agreed upon (See Chapter 5). However, this initial structure can be adjusted later, in view of the materials produced. Learning Management System (LMS) platforms –see Chapter 9– usually plan a structure pattern, which can be an advantage but can also create some inflexibility that prevent them from adapting to miscellaneous needs.
- *Programming.* Web and multimedia programming must ensure the proper operation of each element: buttons, interactive questionnaires, animations, simulations, forums, etc. Both in terms of structure or programming, LMS platforms save a lot of "handmade" work, though they can also limit the margins of manoeuvre regarding what is intended for each course.
- *Graphic style.* When graphic materials –either to print or view on the screen– are part of a series they usually have an identifiable particular style which is kept throughout the series and makes it easy to recognise: spatial distribution, typography for headings and texts, edges, vignettes, graphic elements, etc. This style should no doubt be nice and attractive, something that seems easy to achieve with information technology but which still needs the aid of

an expert. Usually, this is done only once at the beginning when templates are created to be used from then on. At the same time, each element of the series has to be different enough so that it can be easily identified among the rest. Like good magazine covers, we must make this combination between homogeneity and diversity.

- *Drawing and photography*. They both require an expert hand. It is possible to find lots of graphic material in the Internet, though it cannot always be used, either because of legal reasons or low definition quality. Screen graphics often have lower definition and they are not good for printing. Some time ago, it was easy to find graphic designers who were also good at drawing. But this is less frequent nowadays since IT design does not necessarily require drawing skills. Amateur photography, cheapened by digital cameras, can help to solve several issues, but taking a picture of some object –something we usually need to do when preparing teaching material for vocational training– often requires special light and other professional techniques. So, in order to produce a lot of materials, it will be necessary to hire drawing artists and photographers.
- *The comfort of reading.* There are materials which are hard to read on screen. Sometimes they are too long and so we need to use the bar to move downwards all the time. Other times, they are too wide, which is even more unpractical, since we must move the document horizontally across the screen once and again in order to be able to read it or see a complete graphic element, etc. This kind of problems is related to the design or the use of formats which are not suitable for screens. For example: PDF files are good to be printed, but they tend to be uncomfortable for reading on screen.
- *Downloading speed.* Make sure materials are not too heavy to be downloaded from the Internet, in order to avoid annoyed students and teachers. Not everyone can have access to a broadband and a high connection speed. It will be advisable to avoid animations when they are not absolutely necessary and to distribute too heavy materials on CD.
- *Printing quality.* When students themselves have to print some graphic material from an electronic file, quality should be taken into account. It will be very convenient here to work with formats that are page oriented, such as PDF, but not with screen formats such as html which tend to get “altered” when printed. It could be useful to offer two versions, one to be seen on

screen and the other to be printed. The latter has to preview the fact that not everyone will have a colour printer and that material should also be properly printed in black and white. Wefts instead of plains, line drawing instead of pictures, usually guarantee better results. Of course, when there is a lot of material to be printed, it is worth asking oneself whether it would have been convenient to directly print the material ourselves. Transferring printing to the user, who can always have the option of not doing so, saves time and money in terms of production, but it usually reduces the expected printing quality, which may be important for learning in many cases.

- *Recorded voice.* When recording takes place outside, there usually appear problems with direct sound, not dubbed: people whose words are hard to understand, ambient sound that is overlapped and confusing. Audiovisuals offer the possibility to include subtitles during a key and irreplaceable statement, but this cannot be done with audio material. But in both cases it is advisable to plan to have proper microphones and use them well, by looking for places or times when there is less noise, etc.
- *Acting.* Dramatising situations can be very useful. For example, to discuss the quality of services: shop assistants that serve customers, taxi drivers that chat with passengers, just like we mentioned in the previous chapter. It is necessary to make sure that acting is believable and that actors are well directed. Professionals are not always required but we should not think that anyone can do it. Good acting direction is a must, at least.
- *Sound and music.* The world of sound is vast and we should make the most out of it. Even if we do not have images, it is possible to create the atmosphere for any situation if we make proper use of music and silence. Recordings –soundtracks of audiovisuals– which are only full of words, waste several possibilities. Audio records, such as the ones produced by the BBC, can be very helpful, but it is also necessary to know how to produce sounds with old homemade techniques which continue to be irreplaceable in many situations.[6] In the same way, we must have a good music repertoire and be able to choose the right music, almost usually instrumental, except when the intention is that lyrics play a specific role.[7]

6 Cfr. M. Kaplún (1999).

7 We should also be careful here with the copyright involved.

- *Audio/visual editing.* Both for audio and audiovisual materials this stage is absolutely crucial and it is necessary to have relatively expensive equipment and expert handling. If you do not have this equipment it will be better to rent it. A video device or an editing console are no luxury but they are something absolutely essential. However, it is not justified to buy them to make three or four videos or audio records a year. Nowadays there are plenty of IT resources that cheapen and simplify these tasks; yet they continue to be rather delicate and time consuming. Editing 20 minutes of video by selecting parts of different recordings may take 20 hours…

In the graphic jargon we talk about "final art" to mean the preparation of some original piece that will be printed later on. It can be a good idea to extend this idea of "art" to the whole multimedia production work. Its artistic quality will be an essential support to pedagogical quality. It is not the same to read the illegible, hear the inaudible or look at something blur than to find some educational object that has been well designed and finished.

Validation

Before launching a course, particularly if it is directed to a lot of people, it is convenient to test it first in order to make adjustments and corrections. These tests may show aspects that are not clearly understood, insufficient time management, inappropriate operation of some aspect of programming, etc.

However, it is not easy to make appropriate and reliable validations. The ideal test should be made with materials that are just like the ones that will be actually used and under similar conditions to the ones offered in the course. Trying a "raw" video cassette, without editing, saves work but it is not the same. And re-editing the whole material, if that was the case, would be too expensive. To try a one-year course in an intensive one-month version may distort results, but to wait for a year is not always possible and it can be quite expensive.

Having previous experience in face-to-face versions of a course that will be taught at a distance may be safer.[8] This experience acts as a sort of pre-validation. But one should not be too confident about it since there are big differences.

8 This is the path taken by some institutions that have just started in this area, such as INA (cfr. San Lee, 2005).

(In any case it is important to remember again that not everything has to be made at a distance).

Some VT institutions usually start by testing courses "at home" or at least they make sure that some of their members take part in the first experiences.[9] These first experiences can be more limited in terms of number of participants before making them more open. Of course this is not always possible: a compensation course on reading and writing will hardly ever have any participant from the institution itself. When it is possible, however, it is indeed advisable to try oneself what we are offering to others.

Prior validation will be more necessary in the case of "packed" courses. When we produce as the course develops, it is possible to correct errors as we move on. If there are no reliable validation possibilities, this can definitely be taken as an option.

Publishing in the Internet age

On the one hand, it is still necessary to publish on paper. Not everything can be read on the screen and it is not always convenient to transfer printing to the student, because of costs and quality problems. That is why several educational materials continue to be published on paper.[10]

When the material to be published has sound or is audiovisual, then it will be necessary to resort to other means: audio cassettes, video cassettes, CDs, DVDs. CDs offer many advantages: it is possible to include texts, fixed and moving images and sounds, we can copy them in a "homemade" way , without affecting quality. This has made them more and more popular. However, in some cases there are other means that can be more appropriate. For example, video cassettes are still ideal to guarantee image quality and are easy to use for students. For texts on CDs, we can apply the same rules as for on-screen reading.

Finally, publishing in the Internet offers great economic and practical advantages. It saves time and money since it is not necessary to make copies (a unique "copy" can be used by all students) and it allows to correct and change

9 This emphasis was mainly suggested by the responsible team of SENAI-SC (Brazil) and SENA (Colombia) during our conversations in December 2004 and February 2005, respectively.

10 SENAC, in Brazil, for example, keeps its "paper" editions very active, as it was explained to us by its responsible team during our conversations in December 2004.

contents at any time. Various systems and even LMS are also making publishing available to anyone, without the need to have any specialised staff to "upload" or "submit" materials.

Internet allows to publish both texts and images and sounds, though it has some limitations. We have already mentioned the fatigue of reading texts on screen and sometimes the size of graphic, sound and audiovisual files limits access. Even if we have a broadband, there still are no quick and quality video systems in the Internet.

On the other hand, savings can be deceitful: servers that can bear a lot of material and many similar accesses have high costs. That is, not everything that is published in the Internet is free. Nor is everything we read: access also has a cost.

As a result, it is often necessary to combine more than one means, by publishing some materials on paper, some on video cassette, CD or the Internet, even for the same course. In some cases, this forces us to introduce a new element to the publication: boxes or cases to pack all those elements together.

In the case of paper printing, one should be familiar with the pre-printing (matrix, sheets, plates) and printing (offset and rollers) systems and the paper to be used *before starting to design*. Colours and complex images will not be well printed without significant investments in both processes and in good paper. High pre-printing expenses (sheets and plates for four-colour printing, for example) in particular are justified after a certain minimum of copies (hardly ever less than 500). Small print runs (less than 100) can be improvised with semi-artisan print systems, such as office printers. Nevertheless, this can be rather time consuming and quite expensive.

To produce video cassettes and CDs it is also necessary to have some part of paper printing – labels and cases. We can apply the same tips as the ones I have mentioned above.

What criteria does your institution follow to print some materials on paper and others not?

Informing and attracting students

There are times when it is almost unnecessary to advertise a course. It will be enough to send some e-mails, publish it in the Internet and that will do. This takes place when the potential interested people are only a few who can easily be reached and when they are very motivated and attentive to information about courses. Other times it requires a rather big advertising effort, not only to spread the word but also to attract students: doing a course is something they have not thought about before and they are not too motivated to attend one. If the course also has to reach a large number of students to justify the investment in preparation, it will be even more necessary. The costs this aspect implies are not always well reckoned. Whether it is with mass advertising or through selective e-mailing, mail brochures or advertisements on specialised magazines, this stage should be well thought, prepared...and budgeted.

If the course was prepared in a careful way from the start, with a good idea of the potential participants, then we are way ahead. If a market study was also made, even better. This starting point facilitates preparation:

- The main call: Who are we calling? What will potential participants find appealing?
- What means and channels will we use?
- How will the "sale" be settled?

For the first aspect, the name of the course will not be a minor detail. A good name should be easily understood by the target audience, it should provide enough information about the course and, if possible, it should be appealing, interesting. This cannot always be achieved by the name itself and it might be necessary to ask advertising to do so, for example a slogan or an image.

SENAC's course for taxi drivers (2004), which we mentioned in previous chapters, was called "Quality in tourist service for taxi drivers". It may not be a very interesting name but it is comprehensible and it succeeds in informing what the course offers. SENAC's team understood that it was necessary to show that this improvement in quality when serving tourists implied concrete benefits for taxi drivers. A teacher could find it appealing to improve the quality of his or her work, even if it does not imply an economic reward. In this case, however, that is not enough. The chosen slogan of the course's advertising was then "Taxi driv-

ers who get As do not sleep at the rank".[11] A slogan that expresses economic profit in an interesting way (by triggering an "active decoding") which is easy to understand by the target learners: sleeping on the taxi rank for not having customers is an everyday situation that only those who live it know what it means.

What are the names of your courses?
What slogans have you used to advertise them?

The means and channels to use will mainly depend on two variables: the cost and the target audience. Good advertising agencies are usually experts in planning advertising investment in order to maximise it. Although TV advertising may seem the safest option, it can also imply an extremely big expense, and a good part of the effort reaches the wrong audience. On the other extreme, we have direct promotion actions at places and events where our target public is concentrated. They can have a relatively low cost and reach directly our target audience.

We should no doubt include some key information (starting and finishing dates, for example). In addition, we should include the way in which potential participants who decide to take the course –or who want more information to make up their minds– can contact the institution and enrol. Manners, places and schedules to access information and enrol (telephone, Internet, in person) should be clearly advertised. And they should be certainly previewed…

In the case of SENAC's course for taxi drivers, they chose to produce ads for different media but they asked each regional office to fill in the gaps for information and enrolment and the choice of means, in the understanding that it was better that both aspects were solved in a decentralised way.

Enrolment and selection

There are several processes involved here: enrolment as such, register and data processing of the enrolled students, selection and collection of enrolment fees and monthly fees, if applicable.

11 In Portuguese: "Taxista nota 10 nâo dorme no ponto".

Enrolment procedures have simplified a lot with the use of the Internet. But access problems are still a big barrier and it may be necessary to plan other options. Online enrolment also has security risks. We can also be filled with false enrolments,[12] particularly if there is no charge or if the payment can be delayed.

Whatever the modality chosen, e-mail, telephone, Web form or in person and with papers, it is a task that takes some time, dedication and resources as well as implying expenses. An essential thing to do would be to start building a database of students enrolled which can later offer basic information about them, facilitate selection if that is the case, create mailing lists for notices or for the course itself, etc. LMS usually plan and facilitate these administrative issues.

If participants will be selected, then it is important to express the selection criteria in order to avoid future complaints from the ones that have not been selected. This can also be a hard task that must be thought of in advance, particularly in massive courses.

When enrolment implies charges for the student, the whole mechanism becomes much more complex. Credit card payments via Internet are not considered safe by everyone and not everybody has that chance. Collecting also has some charges…

I have probably said something obvious, but it is worth repeating it: the administrative issues of courses cannot be overlooked.

Distributing is never for free

This cost and time should be planned ahead: distributing books, videos, CDs, etc. Sending many materials at different times tends to be relatively more expensive than just sending all the material at once. This may be an economic argument in favour of fully packed courses. But there are good pedagogical and practical reasons to choose other options, so it will be necessary to plan more than one posting in many cases. Many institutions already preview distribution channels; others need to make a special organisational effort.

The Internet also saves time spent on distribution: it would just be enough to send one e-mail or publish the material on the Web to make it available to

12 As we were told at SENA in Colombia, in their first experiences, and before correcting a series of problems, they received several “enrolments” under names such as Batman or Batgirl…

everyone. If volumes are not very big, including this task does not imply further costs, on the contrary, it makes the most out of the already available infrastructure in many institutions. But if materials' volume is very big, and, especially, if there is a large number of students, then it may be necessary to have new servers that may bear all that weight at the same time. As a result, costs will rise.[13]

Teacher and tutor training

When teachers or tutors[14] –or part of them– have not participated in the process of production, then we should plan some specific training work for the staff who is hired by the time the course is about to start.

Expert teachers or tutors will not need more than support handbooks. Others may require courses or training days in order to learn the methodology, understand the characteristics of this kind of work and become familiar with the course's contents. Resources –and time– for this kind of training must be planned ahead enough for it to be ready at the time of starting the course. It might be necessary –though not always convenien– to progress in that sense even if not all the materials are ready.

Some institutions have prepared brief "induction" materials that are a quick introduction to this learning method and the use of technology. Materials tend to be similar for tutors and students,[15] with the corresponding differences of each case. Others have developed long courses about "distance learning on distance learning" (SENAC, 2002), which also introduces the new method to those who have never worked with it.

In the same way as with students, it will be necessary here to "get to know Peter" not to teach him Latin but to help him teach Latin to others… and doing so at a distance and with NICTs. Being familiar with their social and cultural characteristics, their previous training and experience, their access to technology, etc. seems absolutely necessary. At least, an effort should be made to preteach from the common knowledge we all have and the conversations we have

13 SENA in Colombia, for example, had previewed for the year 2005 a cost for renting servers that was equivalent to two US dollars per student. Given the estimated number of students, it implied hundreds of thousands of US dollars in that area.

14 The following chapter clarifies this distinction, which is not usually applicable.

15 Cfr. for example, SENA, 2005.

with them. It can be, though, a precious investment for more in-depth research (cfr. Braga and Pereira, 2004).

I will come back to teachers or tutors in the following chapter.

Launching, continuous assessment, re-editions

As I have said before, it is possible –and advisable in many cases– that the course begins with a face-to-face meeting. This can be a good time for introductions, clearing up practical doubts, forming teams, etc. It can also be useful to detect possible problems and adjustments to be made.

The course will develop, it will take more or less time and then it will end. If it is a short course, then there may be only one final assessment; if it is longer, then it is better to have evaluations in the middle. In any case, particularly during the first experiences and the first days of each course, the team will have to make constant evaluations in order to detect and correct problems and mistakes. Every educational process should never leave all assessments to the end. This is particularly relevant in this kind of course.

Of course there will be a final assessment that will allow to plan possible changes in future course editions.

When all materials used to be printed, these changes were usually long postponed. Although the ideal thing was not to spend more than three years without updates, it usually took much longer to introduce changes. Electronic means welcome changes at much lower costs since money can be saved in terms of publications. Redesign, rewriting, new shooting and recording, editing and mounting, graphic design and final art are all the same as before and they continue to be very important. That is why it is not so easy to make many changes for every new edition, particularly in the case of “packed” courses and courses without “holes”.

Production times

How much time goes by between the initial decision to design a course and the time we can begin to enrol students? This will basically be dependant on three variables.

Course length. It is obviously not the same to prepare one module of 10 hours than preparing a 500-hour course.

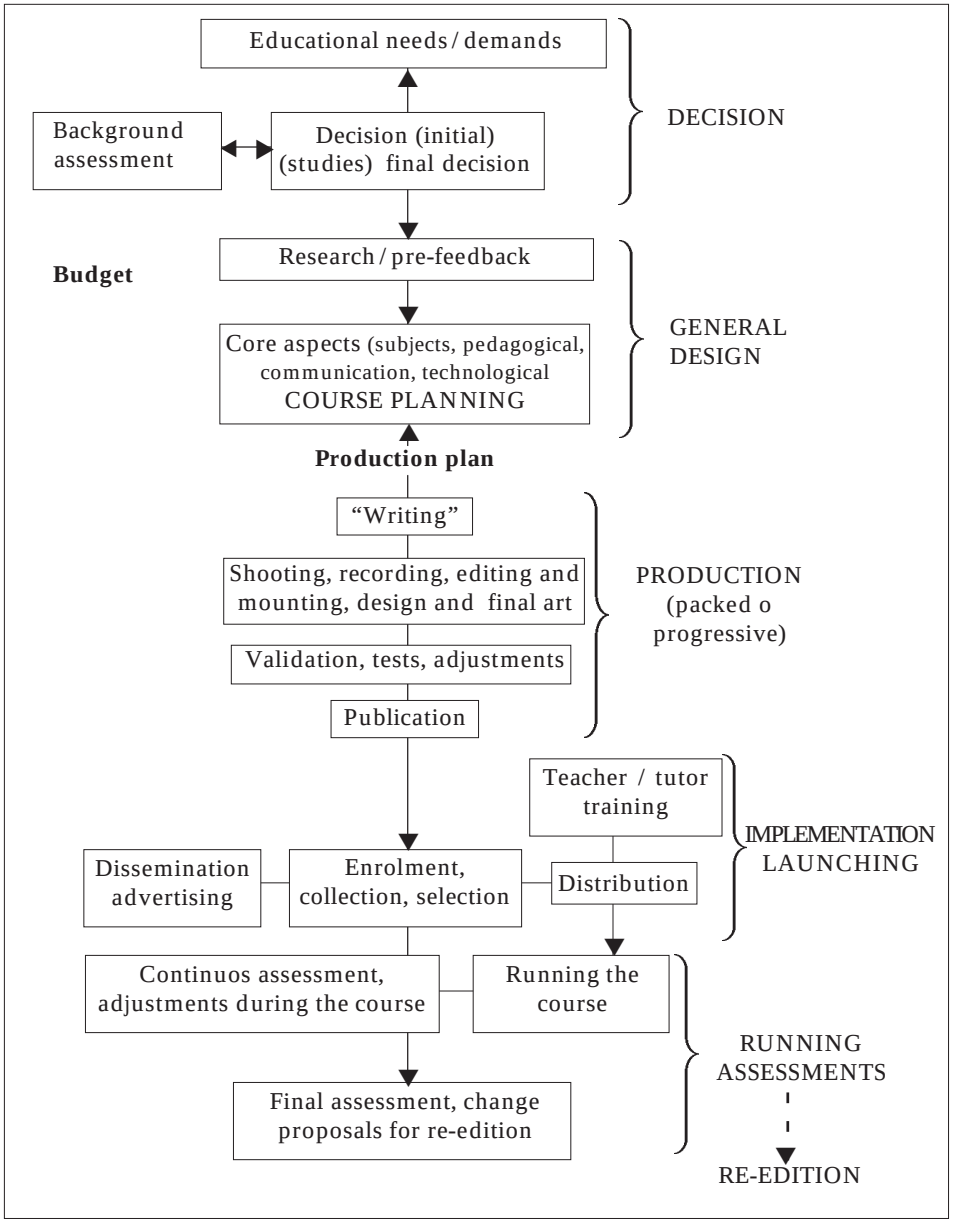
Size, availability and experience of the team. Preparing a distance learning course takes, at least, ten times more time than a regular classroom course.[16] That is, if preparing one hour of a face-to-face lesson for a new course which has never been done before can take at least two hours, then that preparation will at least take 20… and some even risk to say at least 100. Although this may sound too exaggerated, it is not if one thinks of all the processes and people involved, in contrast with what happens with a course in a classroom setting that can be prepared and taught by only one teacher. At least at the beginning, when the team is not in shape yet, it is possible that more time is required. This will reduce as the course develops.

For the example, in a 10-hour module, there will be no less than 200 hours –and hopefully not more than 1000– of preparation. A highly specialised team will probably come closer to 200 hours, and an inexperienced one will probably reach 1000 hours. If the team is made up of four people who can devote 50 hours per month to this task, the work will take them between one and five months. If the team is bigger and can devote more hours to preparation, then times can be significantly reduced.

The packed nature of a course. A fully packed course has to be totally ready soon before enrolments begin. It might be the case that even if courses are relatively short, 20 or 30 hours, several months go by before being able to start enrolments.

All these factors explain why many VT institutions plan between six months and a year from the initial decision to make the course to its launching, depending on the length and complexity of the course. None of them plans less than three months, at least the ones we consulted for the purposes of this book. Even with courses of progressive production, it seems to be the minimum necessary time before starting.

16 Cfr. De Moura Castro (1998), Rumble (2001).


Educational needs / demands
Background assessment
Decision (initial) (studies) final decision
DECISION
Budget
Research / pre-feedback
Core aspects (subjects, pedagogical, communication, technological
COURSE PLANNING
GENERAL DESIGN
Production plan
"Writing"
Shooting, recording, editing and mounting, design and final art
Validation, tests, adjustments
Publication
PRODUCTION (packed o progressive)
Teacher / tutor training
Dissemination advertising
Enrolment, collection, selection
Distribution
IMPLEMENTATION LAUNCHING
Continuos assessment, adjustments during the course
Running the course
Final assessment, change proposals for re-edition
RUNNING ASSESSMENTS
RE-EDITION

Planning production

The above diagram tries to show the whole production process, by grouping the different activities in big phases or stages. The stages of decision and global design are developed in Chapters 5 and 6. The rest corresponds to this chapter. It also makes a difference between "production as such" and the running of the course, with an intermediate stage of implementation and launching.

As it may be seen in the diagram, the complete process can be long and complex. It implies many activities and tasks that must be coordinated. At the beginning they may all be developed by a single team, but other teams may also participate. For example, large vocational training institutions with a wide geographical scope can have some tasks done in a decentralised way. It will be necessary to establish clearly who will be responsible of what, by using charts as the following:

Phase	**Person in charge**	**Assistants**	**Time** (months)
Decision	Central team (CT)	Local teams (LT)	1
General design	CT	LT	2
Production	Local team 1 (LT1)	LT	4
Launching	LT	LT	2
Running	LT	LT	3

Of course, it will be necessary to disaggregate this chart even more, with the activities that correspond to each phase and even with the tasks implied by each one of them, assigning specific responsibilities and more precise times, in weeks or days.

Some tasks and activities are, in addition, simultaneous, so schedules will have to account for that. For example:

Meses / Phase		1	2	3	4	5	6	7	8	9
Decision										
General design										
Production										
Launching										
Running										

This schedule has taken the production times of the previous one. But we have now opted for a progressive production.

How long would the process take if we opted for packed production?

The budget

Once we have a precise production scheme, then we can start preparing an accurate budget. Nevertheless, it is clear that we will have to have a reasonable approximation at the time of making the decision. That is why we included it in that part of the diagram. We should go over this initial reckoning at the time of preparing the production plan. If it is no longer possible to obtain more resources, in the event that they are now considered necessary (which tends to happen quite often), the plan of production itself should be revised in order for it to adapt to the available resources.

If we are able to prepare a budget, it enables us to anticipate the best way of doing things in the future: the types of materials to be produced, the potential number of students and tutors that will be required, the advertising needs, administrative expenses, etc. Chapter 10 offers some suggestions and criteria for budgeting.