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## Strategic Approach to the Use a Digital Product (Audio/Video: DVD Audiovisuel) in Class Activities in Four Colleges of Education in Ghana

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### **Abstract:**

*The research in this context aims to establish, an example of a strategic pedagogic approach for the exploitation of a digital product (Audio/Video, DVD Audiovisuel Educatif) in French as a Foreign Language, FLE.*

*The research has two main components. Under the first action, we highlighted the requirements of the targets group to be trained as well as the models to deploy and develop the training framework.*

*In the second case, we talked about the organization and functioning of the training programme. Among other things, describing the role of needs analysis on the part of trainees and the reasons for capacity building in the integration of digital tools in classroom activities in four Colleges of Education.*

**Keywords:** DVD audiovisuels Educatifs, specifications, theory, organizational method, teaching skills

### **1. Introduction**

This research allowed us to put into perspective, the various pedagogic requirements / stages necessary, for the integration and exploitation of DVD Audiovisuels Educatifs in the teaching activities of teachers in Colleges of Education in Ghana.

The research is based on two strands.

Under the first strand or action, we have drawn up specifications for the implementation of training regarding the use of digital products in the teacher's classroom activities. The specifications define the contents of the training programme which describes possible modules to be considered. This has been designed taking inspiration from the four skill order stages of the Desjardins model (2005).

According to Barbier (1996), practice is at the heart of the development of a research trend that offers a renewed vision of the link between research and practice. Desjardins model (2005) is our main referent for the design of a training programme in this research. It highlights the requirements of the targets group to be trained.

Under the second part, we will develop the organization and function of the training. Among others, the teaching skills envisaged as well as, the target group. Finally, we will discuss the pedagogic approach needed for a comprehensive use of a digital tool in teaching French as a Foreign Language in the four Colleges of Education.

#### *1.1. The specifications*

The specifications in this context are simply a guide to be considered and build a consistent programme for capacity building.

According to Bipoupout, Boulhan, Diallo, Kizabi, Roegiers and Traore (2007: 172), the specifications determine the quality of an action to be carried out and to monitor the training process and also ensures consistency between the different actions to put in place. The specifications set the main directions for educational capacity building. In order to maintain the course content relating specifically to the needs of teachers, we briefly describe the role of **needs analysis**. We then propose the content of the modules to be introduced.

### **2. Reasons for Capacity Building in the Use of Digital Tools in Classroom Activities**

#### *2.1. Role of Needs Analysis*

According to Bipoupout, Boulhan, Diallo, Kizabi, Roegiers and Traore (2007: 32)

The purpose of an analysis of training needs is to provide orientation for training, to define appropriately the contents to specify the various characteristics. It helps to determine if training is the necessary and sufficient solution to a dysfunction that we observe in the activities of the target group, or to a project that we are setting up. If it is not done beforehand, there is a risk of the wrong action to be taken, which will result in a considerable expenditure of energy, time and money with a negligible effect.

Analyzing the trainers' perceptions on the integration of information and communication technologies (ICT) in teaching practices in the four teacher training colleges in Ghana, requires a needs analysis before setting up an experimental training of actors.

The following diagram illustrates the three aforementioned goals and shows how the needs analysis works.

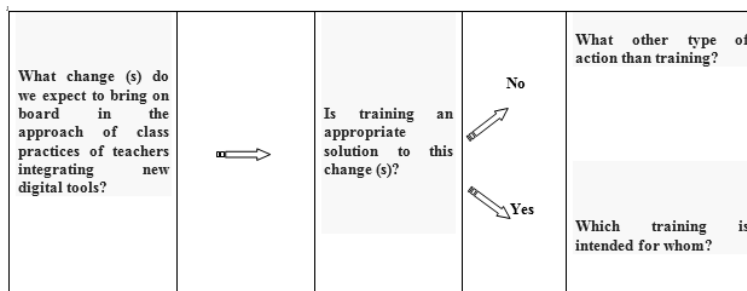


Table 1: Needs Analysis Works  
Source: Stufflebeam, (1980: 32)

The interest of the diagram for our work is to guide us first of all to determine concretely through the perception of the stakeholders, the training that we wish to integrate into the practice of teachers. Then, determine if the planned training can bring a change to the detected dysfunction and change the given situation? Finally, it will be necessary to target the category of the teachers concerned in relation to the capacity decided upon.

### 2.1.1. The Needs Analysis in the Research Essentially Targets Three Goals

First, this allowed us to determine, in a real teaching practice of the teacher, the reflections we expected, then, the needs analysis allowed us to determine the most appropriate training where the skills necessary to make representations evolve vis-à-vis the educational practice of trainers.

Thirdly, it enabled us to determine the category of trainers to train and the type of training to be mobilized for skills enhancement and educational representation change.

The perceptions of trainers in the Colleges of Education regarding the integration of information and communication technologies ICT in teaching practices provoked a change in teaching methodology of the latter. To facilitate / promote these desired changes, practical on-site training in the use of digital tools can be implemented.

#### 2.1.1.1. The Training Facilitator

A training resource person would be a trainer of trainers competent in the use of multimedia tools in French as a foreign language.

#### 2.1.1.2. The General Educational Objective of the Training

An evaluation system to measure the impact of training integrating ICT on the pedagogical practices of trainers would also be considered. According to 'Bipoupout et al, 2007', waiting until the end of training is ironic. On the other hand, rather we evaluate during the training, the greater the opportunity to identify the shortcoming to make adjustments.

#### 2.1.1.3. The Development Phases/Steps of Training

The training is planned taking into account a certain number of items grouped in order of skills according to the Desjardins (2005) model, in addition to other requirements that we deem appropriate. First, we discuss the characteristics of Desjardins (2005).

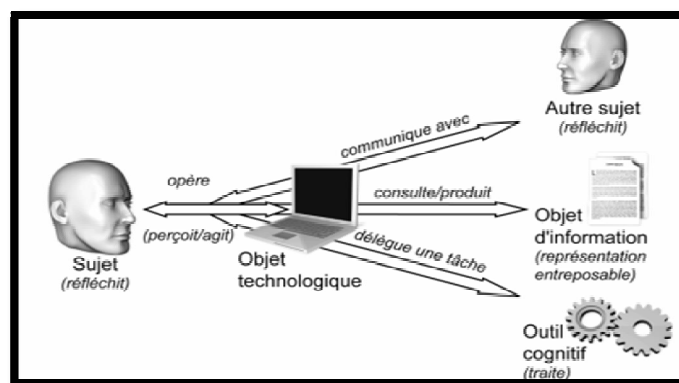


Figure 1: Le Modèle Dynamique De Desjardins (2005)  
Source: Desjardins, 2005

The model Desjardins (2005) is presented under four skill labeled, «technical skills’, ‘social skills’, ‘informational skills’ and ‘epistemological skills’. According to Gillet, (1986), Le Boterf (1999), these skills are articulated in a system of conceptual and procedural knowledge, organized in operating scheme and which allow the intention of a set of situations, the identification of a task-problem and its resolution by an effective action. In other words, the model's skills facilitate the identification of deviations and the implementation of appropriate remedies to a particular situation.

From the words of Desjardins (2005), we summarize the relationship that the human subject can establish, that is to say the teacher / learner towards the technological object.

- ‘Technical Skills’, - Subject - Technological Object
- ‘Social Skills’, - Subject - Technological Object - Other Subject
- ‘Informational Skills’ - Subject - Technological Object - Information Object
- ‘Epistemological Skills’- Subject - Technological Object - Cognitive Tool

### 2.1.2. Technical Characteristic

This first stage of training provides us with basic skills for trainers.

- Operate a computer and its peripherals without help (other technological equipment)
- Use the most complex software functions to develop professional quality products
- Use computer and technology appropriately in both oral and written communications.
- Use the help functions integrated into the various software programs to troubleshoot (to help solve basic problems).

### 2.1.3. Social Characteristics

This order considers other communicative advantages of digital tools in the pedagogic activities of trainers.

- Encourage the use of information and communication technology (ICT)
- Communicate by mail among others

### 2.1.4. Informational Characteristics

Informational order is a phase that allows teachers to identify and organize data relevant to classroom activities.

- Use several fields to sort or search in a database
- Use the notional network to search by keywords
- Make a critical judgment on the documents found

### 2.1.5. Epistemological Order

How to choose and apply new skills in these educational activities to improve performance.

- Process data on new technological equipment to improve knowledge.

## *2.2. The Organization and the Steps to Be Considered in Integrating Digital Tools in Classroom Activities*

An Example of A Methodology Adopted in Using A Referent Document.

### 2.2.1. The Teaching Skills Reference Document.

In this research, we use DVD Audiovisuel Educatif designed by TV5Monde and CAVILAM in collaboration with the Ministry of Foreign and European Affairs (MAEE) as the reference document for this model training. This guides the future users of the tool.

### 2.2.2. Target Group

The direct beneficiaries (specific group for teachers) of the training are involved in the research, the colleges of Education and teacher observers from private and public universities in Ghana who wish to be made aware of the use of these digital tools.

### 2.2.3. The Size of the Participating Group

The size of an adult group could remain around 15 to 25 participants depending on the room and the level of equipment available for training.

The heterogeneity of the group helps in the harmonization of training (the years of experience, the positions they occupy and especially the classes they manage while taking into account their level of competences in the use of technological tools (Burden (1995).

### 2.2.4. The Choice of the Room and the Material Organization

The trainer should also adhere to certain aspects of the arrangement of participants in the training room as recommended by Burden (1995) Training to change the school. (2007: 235); ‘A teaching room must fulfill the following six functions: security, socialization, belonging, material and physical organization, pleasure and intellectual development’. The trainer must respect these functions at the start, during and at the end of the training (**Burden 1995**). Providing another room available for plenary and sub-group work is also recommended

### 2.2.5. Duration and Content of Training

In the context of such training, a duration of four (4) days, at the rate of (6) hours per day is desirable and recommended. This is supported with a timetable model.

### 2.3. Training Plan (Timetable)

The advantage of having access to a training plan well in advance of the day is that it gives the participant a reflexive space to decide what suits them according to the knowledge and skills to be developed, to work together (see priority ) and find a consensus on the whole project before the start. A timetable below has been designed to properly frame the activities planned for the training. An official opening session of the training preceded the necessary pedagogic activities.

	<b>Lundi</b>	<b>Mardi</b>	<b>Mercredi</b>	<b>Jeudi</b>
<b>09-10.30</b>	<b>Opening ceremony</b>	(Exposition) Les DVD audiovisuels éducatifs Description of DVD	Group work	orientation RFI : website
<b>10.30-11</b>				
<b>11-12.30</b>	Brainstorming positive effects of ICT in the practice of teachers	Model lesson : didactic of a fortage métrage (Regards VII 2007) Les vacances des Français	Group work	orientation TV5M onde: website
<b>12.30-14</b>				
<b>14-15.30</b>	Development of techno-pedagogical knowledge / skills	Research and experimentation Targeted skill: Listening comprehension	presentation	Evaluation
<b>15.30-16</b>				
<b>16-17.30</b>	Practicals : discussion	Group work	Presentation	Evaluation Closing ceremony

*Table 2: The Structure of the Training: Techno-Pedagogical Reinforcement Course for Colleges of Education Teachers in Ghana*

### 2.3.1. Material Supports

The table below groups together the materials used in training.

A computerized environment with installed technological equipment facilitates the smooth running of the training. The table below lists the equipments and materials supports available for the trainer/facilitator and the materials available for the participants.

<b>Materials available for the trainer / facilitator</b>	<b>Materials for participants</b>
Flip chart with white paper rolls	Computers (optional)
Markers	USB (required)
Laptop with power point software installation	Note books (sufficient pages) Pen/pencil/eraser
Photocopier machine with enough A4 paper	External hard disc (optional)
Projector	
Extention board/ sockets	
Generator on site	

*Table 3: Equipments and Material Support*

### 2.3.2. Human Resources: Support Staff

In emergency and troubleshooting situations, a technician and a secretary will be on site to meet the requirements relating to their skills throughout the training.

### 2.3.3. Educational Approaches

A participative atmosphere (facilitator and participants), an interactive approach, proposals for tutorials, projections of sound extracts are planned.

### 2.3.4. Evaluation/ Assessment

The training assessment is based on two categories: facts and representations.

According to De Ketele and Roegiers (1993), Gerard, (2003) the idea of Training to Change the School (2007: 197) and to assess the internal effectiveness of training, it is to check whether the participants have actually acquired professional skills in situation (the facts) and secondly, if they think that the professional skills targeted are acquired (the representations). In view of this, we have proposed a satisfaction questionnaire having met these two conditions. We have highlighted a copy of the training evaluation questionnaire form on the next page. The questionnaire is developed in English to facilitate the comprehension.

**Evaluation Form**

TITLE OF THE TRAINING : Les DVD audiovisuels éducatifs en classe de langue

Name of the facilitator : \_\_\_\_\_ Date \_\_\_\_\_

Please indicate your level of agreement based on the scale provided below.

1=totally disagree 2=disagree 3=neutral 4=agree 5=totally agree

1. Has the objectives of the lessons achieved? Yes No

2. You were motivated with this method of teaching 1 2 3 4 5

Why? Explain briefly \_\_\_\_\_

3. The objectives were clear and precise 1 2 3 4 5

4. The exercises and the activities were pertinent 1 2 3 4 5

5. The use of the DVD has improved the communication 1 2 3 4 5

6. This training has improved your level of knowledge and skills 1 2 3 4 5

7. I wish to integrate this new skills into my pedagogical practice 1 2 3 4 5

8. I will recommend this new way of teaching to my colleges 1 2 3 4 5

9. Will the use of the DVD in teaching French improve your teaching skills? Yes No

If yes, explain briefly \_\_\_\_\_

10. Do you recommend the integration of ICT in teaching French in the Colleges of Education in Ghana? Yes No

If yes, why do you think so? \_\_\_\_\_

\_\_\_\_\_

Your additional comments and recommendations please (English/ French)

\_\_\_\_\_

\_\_\_\_\_

Your name: (optional) \_\_\_\_\_

Thanks for filling in this evaluation form. Please return it to E. KOKROKO

*Figure 2 : Formulaire D'évaluation De La Formation  
In the Next Part We Discuss the Progress of a Model Lesson*

### 3. Programme of the Training

Under this part, we highlight the modules developed during the training and then we describe the objectives of the sessions conducted.

#### 3.1. Description of the Pedagogic Skills for Training in the Use of a Digital Tool

##### 3.1.1. Educational Use of a Digital Sound Tool: 'DVD Audiovisuel Educatif'

Under this phase, the different stages developed have been discussed.

We used the steps of Nagle and Sanders (1986) model, to carry out the methodology in the use of the digital document that we used in training. As a reminder, we summarize the five steps proposed by Nagle and Sanders (1986) vis-à-vis the methodological approach that we can follow for the teaching of listening comprehension in a model lesson.

<b>Nagle and Sanders models (1986)</b>	<b>Steps to be used in teaching oral comprehension</b>
sensory register or sensory reserve	pre-listening and brainstorming activity
Automated processes	global understanding activity
Controlled processes	detailed understanding activity
Constant production	Production
command center	evaluation

*Table 3: Stages of Pedagogic Activities, Use in Teaching 'Oral Comprehension'  
Nagle and Sanders' Model (1986)*

The first column represents the stage of development of a comprehension activity proposed by Nagle and Sanders (1986), and the items in the second subsequent columns, are the steps that we have deployed for the exploitation of oral comprehension lesson.

#### 3.1.1.1. Step 1- The Sensory Register or the Sensory Reserve / Brainstorming

This is the first phase that begins the training by soliciting ideas from participants on the main theme to be discussed: the time dedicated to brainstorming. 'Discussions in general are carried out on the information and communication technologies, ICT infrastructures in their respective institution. It is also the time to talk about their own techno-pedagogical competence facing pedagogical practices among others «Brainstorming» for us opened up several opportunities for participants to speak on the subject. They could talk about the typology of technological infrastructures they have in their institution as well as the modes of use of computer rooms. They can deepen the discussions by telling us about their expectations on the effects of ICT in teaching / learning French. This has raised so many questions of extreme importance.

#### 4. Objective

The objective of the first step is to:

- Make participants aware of the possible integration of ICT into their classroom pedagogy,
- Demystify the integration process into their approach to teaching French language,
- Collect reluctance and other factors unfavorable to the integration of ICT in teaching practices.
- Following the open-mindedness of the participants, it will be necessary to begin the development of techno-pedagogical knowledge and skills. This module is a necessary prerequisite for all participants in training in the use of technological tools.

#### 4.1. Development of Techno-Pedagogical Knowledge and Skills

##### 4.1.1. Theory / Practical

Module 2, entitled 'Development of techno-pedagogical knowledge and skills', allows the user to simply identify the names of the equipment / devices related to the integration of ICT. This activity in the first part was a theoretical demonstration. Technological equipment / devices were exposed and descriptions of their function were given. In the second part, the user seeks to put into practice the techno-pedagogical skills developed. Proficiency in the use of this equipment is essential for the integration of ICT in education. This module is a prerequisite that participants must complete before they can advance to a higher level in this type of capacity building. This techno-pedagogical knowledge and skills will allow users to feel more comfortable and be confident and undertake the rest of the training. According to Terral, (1997: 45).

'The application master' whom we recognize under the name 'trainer' will be responsible for welcoming student teachers and, in particular, for carrying out model lessons before them which we obviously hope will be initiated by the trainees not only in trial lessons or internship courses but later when they are in charge of a class. In this case, handling the trainers' technological tools will be an integral part of their training.

This module aims to:

- Allow the user to appropriate the basic vocabulary of technology regarding teaching,
- Identify the iconography of the various functional technological equipment,
- Acquire a minimum level of maintenance of technological devices,
- Allow the user to put into practice the basic technological skills and finally, to allow the user
- To be confident in their teaching approach.

A demonstration of the operation of the equipment can be made and the participants in turn can participate in the handling of a few devices on display.

After the basic acquisition of the knowledge and skills described above, the procedures for the steps of teaching concrete documents are planned.

##### 4.1.1.1. Step 2 Automated Processes / the Global Understanding Activity

Listen to the audio/video extract once, and ask general questions that could catch the learners' attention. This phase is a very important start which leads the learners to pay more attention.

The trainer could ask the following questions:

What is it about in the film (the sound clip)?

What are we talking about in the video?

What did you see in the film?

What did you hear in the sound clip?

In the controlled process or detailed understanding, the trainer expects more responses from the learners.

#### 4.1.1.2. Step 3 the Controlled Process or Detailed Understanding

Play and / or watch the extract once, without the sound (video) with the sound the second time.

Ask questions in detail by asking questions with expressions like:

How many people have you seen, listened to in the excerpt?

What voice (s) did you hear?

Who is.....?

Name the characters in the text?

How many colors are there? After the detailed understanding, the trainer can proceed to constant objectification or else production.

#### 4.1.1.3. Step 4 Constant Objectification / Production

Under this step, the trainer can identify and develop typologies of exercises appropriate to the documents. In context, the trainer offers multiple choice exercises, true or false questions, hole exercises, pairing exercises among others.

In conclusion, we have developed the methodological development that could be followed in order to set up training in the integration of digital tools into the pedagogical activities of teachers.

First of all, we discussed the specifications as an essential tool to prioritise in such a context and which determines the quality of training to be conducted and observes the development of the training and also ensures consistency between the different activities of training.

In the second part, we were inspired by a theory which refers to characteristics and items to follow to ensure the pedagogic approach of a reliable capacity building training. A description of the organization and the implementation of the training is also established. We targeted a very specific audience, the human and material resources necessary for the training as well as the categories of evaluation considered in the training. We ended with a design of a training course as well as details of the specific steps to be followed during teaching practices using les DVD Audiovisuels Educatifs.

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