



Development and Implementation of an E-Portfolio of Languages in the Moroccan University

QEZBOUR Mohamed-Aymane¹, NEJJARI Amel², KHALDI Mohamed³

¹Information System and Software Engineering Laboratory, ENSA Tetouan, Abdelmalek Essaadi University

²Teacher-Researcher Coordinator of the Preparatory Years Stream Head of the Humanities Department, ENSA Tétouan, Abdelmalek Essaadi University

³Teacher-Researcher, ENS Tetouan, University Abdelmalek Essaadi

ARTICLE INFO	ABSTRACT
Published Online: 31 March 2021	This article will deal with the problem linked to the difficulties encountered in teaching and learning languages at the Moroccan university, a problem which can influence all disciplines, the French language being a major example given its importance in university courses, this language which has known a lot of changes throughout history, and which knows important strategies proposed in recent years, one of which is the integration of information and communication technologies in education, using distance learning technology called E-Learning, we will offer the E-Portfolio tool as a rigorous choice and a solution to the problem, the methodology followed is based on the ADDIE model.
Corresponding Author: QEZBOUR Mohamed-Aymane	
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I. INTRODUCTION

Language learning in Morocco has faced several changes throughout history given the cultural and political changes before and after colonization, the Arabization of primary and secondary education and especially scientific subjects has caused major problems among learners in their university course.

To deal with this problem we will propose to use Information and Communication Technology and exactly distance learning technologies called E-Learning where we can use several tools including one of the most interesting one the E-Portfolio.

This article presents the state of art made within the framework of the doctoral thesis under the theme design, development and implementation of the E-Portfolio of languages in the Moroccan university, it will contain the first part the problem linked to the theme, the methodology followed which is based on the ADDIE model, the French language in historic of Morocco and challenges encountered, The use of distance learning platforms in the Moroccan university which begins with important statistics and speaking of one of the important concepts which is the class inverted, from general to specific technology we pass from the E-Learning to the E-portfolio which is the tool chosen in our process by talking about its history, definition, types, and how to exploit to face our problem.

II. PROBLEMATIC

One of the biggest problems encountered by learners at the Moroccan university is that they will be forced to go through their entire university course using foreign languages from the first university year until the research phase, while most of them had Arabized formation in their primary and secondary school.

Faced with this problem and taking into account the hourly mass reserved for modules associated with language teaching, learners will be unable to overcome this problem which can even affect their other scientific modules.

So the university is obliged to use information and communication technologies which will be a dynamic, inexpensive solution able to provide real solutions to this problem.

E-Learning platforms can be a rigorous choice to overcome this problem, and one of the most important tools is the E-Portfolio. We will then try to develop and implement an E-Portfolio of languages intended for use in the Moroccan university.

III. METHODOLOGY

To carry out our work, we chose the ADDIE model, to be able to focus on all stages of design, development and implementation of a learning device such as the E-Portfolio.

The ADDIE model is one of the most famous models of what is called educational engineering which allow to

structure the work intended for educational purposes, this model is broken down into five phases Analysis, Design, Development, Implementation and Evaluation. (Deschamps Patrice, 2015)

The following table will detail the steps that we will follow during the completion of the work while respecting the ADDIE Model exactly that defined by Lebrun (Lebrun, 2007) , and a description for each of the steps :

Etape	Description
1. Analysis	Definition of the problem Linked to language learning in the Moroccan university, and to the needs of the target audience.
2. Design	Identification of objectives and targeted skills, prerequisites, content, learning activities, teaching approaches and technological resources used
3. Development	Creation of educational scenarios and content that will contain learning activities, educational resources and assessments
4. Implementation	Implementation of the E-Portfolio
5. Evaluation	Experimentation and Improvement

Board. 1 Steps of Addie Model (Lebrun, 2007)

A. Analysis

First of all, the Analysis is the basis of all the other phases that follow. This aims to consider several components that make it possible to define the development project for the learning system (Basque, 2010). This stage is the appropriate moment for the teacher to initiate a reflection on the needs of the training by specifying the nature of the problem that the learning device aims to correct. This phase consists in analysing a certain number of components which serve to guide the development project of the learning system: the training needs, the characteristics of the target, the context in which the training takes place, the existing resources that can be used or adapted for the learning system (Basque, 2004).

B. Design

Design is essentially based on the teacher's responsibility and aims to develop a teaching strategy that will achieve the objectives established in the previous phase. To do this, the general objective of the training will be determined. From there, we will identify the specific objectives which in turn will be subdivided into learning sub-elements and finally into content. In addition, the purpose of this phase is to develop the educational strategy and to select the learning

media as well as the various elements making up the educational material to be developed for training (Basque, 2010).

C. Development

This third phase consists in giving shape to the training project by building on the two previous stages. Mainly, the objective is to shape the learning device using various tools such as paper, pencil, photo, audio or video material, camera, computer, software, educational platform, etc., according to: (Lebrun, 2007) It will be a question of building the plan of the different lessons, and of developing the necessary resources (the necessary documents, the media, etc.). This may include hardware (hardware needed for experiments) and software (e.g. exercise software).

D. Implementation

Implementation consists of delivering the product and making it accessible to targeted participants. The student or the control group will be given access to the educational material (face-to-face teaching, computer software, website, hyperlinks, etc.) developed in the classroom, in the laboratory or through a computer or telemetric system (Lebrun, 2007). During this cycle, it will be important to see that the student understands the teaching material, the reached objectives, knowledge and transfer from the place of learning to the place of application (Ibid.) .

E. Evaluation

This last step consists in carrying out the evaluation of the learning system in order to validate its quality and effectiveness. The evaluation covers the whole process: during the phases, between the phases and at the end of the implementation process (Lebrun, 2007). Note that there are two types of assessment. The first, called formative evaluation, will make the necessary improvements before making it available to the client target. The second, called summative evaluation, will seek to assess and ultimately decide whether the product can be launched, sold or made available to students. It is important for the teacher to carry out an adequate preliminary analysis of the training project and to determine its objectives in the form of expected behaviours (acquired knowledge or skills). (Lebrun, 2007) thus mentions the relevance of having tests or evaluations that will accompany and complete the design process, right from the Design phase.

IV. FRENCH LANGUAGE IN MOROCCO

A. History

The French language was introduced in Morocco before and especially during the Protectorate (1912-1956) and remains even now the language practices after teaching French protectorate has several changes.

From the 1960s, the minister made a reduction in the hours linked to the French language as a language of instruction as stated in the official instructions that after independence the share reserved for teaching in Arabic had

been increased compared to French, and one of the recent ministerial decisions is that the first two years of the primary cycle will be devoted entirely to teaching in Arabic.

During the 80s and 90s, the Moroccan school decided the Arabization teaching of scientific subjects in the secondary cycle, in this period the objective through the teaching of French according to official instructions is a functional use.

In the 2000s, official instructions thus argued that the teaching of French aims to acquire the Moroccan learner a functional foreign language. (Benzakour, 2007).

B. Challenges and solutions

In Morocco, one of the great obstacles facing Moroccan learners is that learners are called upon to continue their studies in French (especially the scientific branches) after being in a pre-university cycle in Arabic.

The identification of this problem forced the Minister of Higher Education, Scientific Research and Management Training to offer a module in French called " Language and Communication " during the first two semesters of university training.

In 2014-2015 this module changed its title and took the title «language and terminology ".

The new 2020 “Bachelor” training system: The Ministry of National Education, Vocational Training, Higher Education and Scientific Research announce the launch of the Bachelor training system scheduled for 2020.

According to MAP (Moroccan Agency of press) a national meeting dedicated to the examination and approval of documents related to the Bachelor training system is scheduled for April 23, 2020, the filing of documents on April 26 and the launch of calls for tenders on April 29. The development of new Bachelor programs is planned by universities for May and December 2019.

The Bachelor is an internationally recognized university degree which closes the first university cycle and which generally corresponds in the LMD system to the license but which will be 4 years of university studies instead of 3 years.

In this new model, the emphasis will be on languages and soft-skills during the first two years, in parallel with basic learning.

V. THE USES OF DISTANCE LEARNING IN THE MOROCCAN UNIVERSITY

A. History of distance learning

Distance learning is more than a century old. Its arrival dates back to 1840, the same year the postage stamp appeared (Blandin, 2004; Glikman, 2002). It was in England that Isaac Pitman set up the very first distance learning course on a method of shorthand (Ibid.). This type of distance education, based on the correspondence of manuscripts, experienced a meteoric rise among the population, that other training programs were launched, including one in accounting (Coumare, 2010). The period between 1960 and 1985 marks the beginning of distance

education as an institutional mode of university education (Huotte and Leroux, 2003). In fact, distance training will improve thanks to the radio, telephone, television as well as the fax machine which will allow significant advances to this type of training (Benraouane, 2011; Blandin, 2004). These latest technologies will gradually increase accessibility to knowledge and change the mode of learning. The arrival of computers and the Web, in the 1990s, added even more potential to distance learning by allowing interactivity between the teacher and the learner. (Benraouane, 2011). The arrival of ICT therefore simply confirms the logical evolution from distance training to online training. The repercussions will be almost instantaneous and will be greatly appreciated by teaching and professional circles as well as continuing education circles for adults who are not immune to this reality.

B. Definition of distance Learning

Although it is difficult to find a common definition of distance learning among the authors consulted, we observe that distance learning is defined in comparison with certain factors such as space (face-to-face lessons), time (deferred teaching and learning activities) or according to the use of technological resources (ICT). According to the words of (Pera 2002) Distance training can be defined in relation to traditional intramural or face-to-face training, as being training which frees the learner from the constraints of space and time, thanks to a clear break between teaching and learning activities. Students are no longer present in the classroom in order to access course content, thus abolishing the constraint of distance (geographic) and time (temporal). This form of dissemination and acquisition of knowledge therefore allows a student to self-train without having to travel and without being in physical contact with a teacher (Kim, 2008; Roy, 2011). Although the distance aspect appears to be an inescapable feature of the benefits of distance education, (Jacquinot, 1993; Pera, 2002) offers an expanded version of the concept of distance education. In addition to the notion of spatial and temporal distance, there are three other aspects: psychosocial, technological and socio-economic. For their part, Henri and Lundgren-Cayrol (2001) present a definition of distance learning which is based on the five aspects mentioned above. Distance education is most often described as a mode of economic training that uses technologies to bridge spatiotemporal distance, thus improving accessibility in an ideal of democratizing education (Ibid.). Still according to Henri and Lundgren-Cayrol (2001), education and training have always been influenced by technology; writing, printing, broadcasting, computers and now the Internet and the Web, the world of education and training benefits from the contribution of ICTs. For their part, Deschênes and Maltais (2006) tend to favour a more general definition that encompasses all the factors raised previously. They define it: As an educational practice favouring a learning process which brings knowledge closer to learners, we consider

learning as an interaction between a learner and an object leading to a mental representation which constitutes a tool for understanding the world. Distance learning is therefore a means by which the student accesses knowledge by basing it on his or her previous knowledge. Thus, the student himself or herself manages to construct a new representation of this knowledge. This new knowledge allows her to better understand the world and this world is of course the reality of the learner.

C. Distance learning, a device or a system.

These two terms are frequently used in the literature. A simple search on the Internet using the keywords "device" and "system" confirms the frequent use, but also the multiple meanings given to these two words. As noted by (Demaizière, 2008), the term device is often found used in educational engineering to designate in a polysemous way, either a training system, or a technical object such as software, or an educational resource. Peraya (1999) defines a device as "an instance, a social place of interaction and cooperation possessing its intentions, its material and symbolic functioning finally, its own modes of interaction". For its part, (Paquette, 2005) rather refers to the term learning system. (Lebrun, Smidts and Bricoult, 2011) define the learning system as "a coherent whole composed of resources, strategies, methods and 'actors interacting in a given context to achieve a goal', which offers an interesting solution to the acquisition of knowledge. We also find the term training device that (Quintin, 2008) defines as the result of the articulation of all human, organizational and technical means implemented by the members of an institution (eg manager, coordinator, designer, teacher) to provide training .Blandin (2008) opts for the use of the term learning environment, on the one hand because the English-speaking world more easily uses the term Learning Environment and on the other hand, because the term device masks the whole of what makes it up. However, Blandin (2008) recognizes the common meaning of the two terms when the learning device is designed and developed so as to articulate a set of human, organizational, technological, and techno pedagogical resources in order to ensure learning. Same observation in Demaizière (2008) who sees a similarity of the two terms, but recognizes that the term device has become an inescapable denominator whose use is fashionable and current seeking above all to highlight "that we are fully aware of the complex interaction between various parameters". The terms device, system or environment can take on a common meaning insofar as they are interested in the articulation of different elements with each other in order to make someone learn something. As Honey (2001) points out, in order for a learning system or training device to be interesting, we still have to put ourselves in the student's shoes, consider learning as a process, take into account different learning styles and refer to different technological resources to provide the most suitable learning system possible. We will retain in this

article that the use of the terms learning device, learning system or learning environment includes for us a common meaning. We thus join the words of Blandin (2008) and Demaizière (2008). Whether it is a question of a learning device or system or a learning environment, to be efficient, the latter must be at the crossroads of three logics, the learning device or system takes into account the logics: didactic, pedagogical, and technological (ICT), to allow the construction of the student's knowledge.

D. Statistics

The use of technology for teaching purposes in multiple forms is currently being developed in all sectors of education and particularly in the academic world. This new teaching method offers advantages, including that of facilitating distance education. In a recent report by the National Center for Education Statistics (Wirt and al, 2004), it appears that distance education in the United States is experiencing a meteoric explosion for post-secondary educational institutions. The number of institutions offering distance education in public education increased from 58% in 1997-1998 to over 90% in 2000-2001, while at the same time doubling the number of students. Another report (US Department of Education, National Center for Education Statistics, 2002) shows that just over 60% of distance students in 1999-2000 used the Internet to follow their courses and this figure reached almost 80% for master students. (Fabien and Déro, 2006)

In Morocco statistics were made by Karim Oulmaati, Said Ezzahri, and Khalid Samadi in 2017 on the use of ICT in Abdelmalek Essadi University and had significant results concerning the use of these tools between learners and their teachers, these results are presented in the following figure:

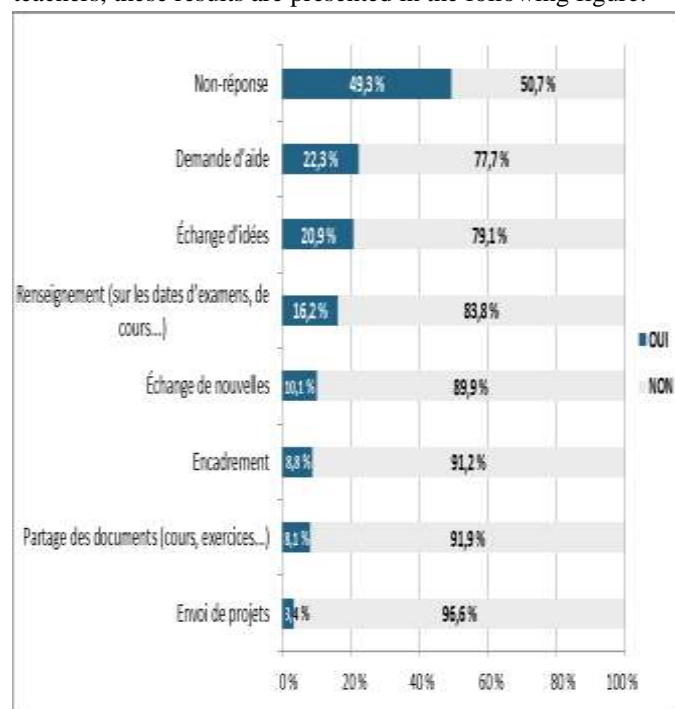


Figure. 1 Uses of ICT communication tools among students with their teachers as part of teaching learning process (Oulmaati et al, 2017)

E. Moroccan strategy

Morocco has adopted the “Digital Morocco” strategy, through which the integration of ICT in several fields has been registered, the most important of which is teaching and learning.

The goal is to create more motivation in the learners, for more communication, have significant access to a large base of information and knowledge, and create autonomy in the learners.

The Moroccan Minister of Higher Education adopted a 2013-2016 strategic plan to face the challenges of training and scientific research, and therefore stressed the importance of integrating ICT into the process of learning through the three programs NAFIDA, INJAZ, and LAWHATI.

The Higher Council for Education, Training and Scientific Research (CSEFRS) has built a strategic vision that spans the period 2015-2030 "" by developing a national strategy that will put them at the service of the quality of learning at the level of curricula, programs and training from the first cycles of education, thanks to different digital media, interactive programs and networks”(CSEFRS, 2015).

F. The flipped classroom

It is an educational approach that appeared in the late 90s in the United States, the principle of this approach is to give free access to the lesson to learners in digital format (platform ...) or in literal format (handout ...) at outside the classroom in a phase called the acquisition phase.

Class time will be devoted to an analysis phase where learners can discuss, analyse or do application exercises.

In the university sector, the inverted class was initiated in 1990 by Eric Mazur, professor of physics at Havard University, in the United States, who favoured self- learning outside the classroom (Eric Mazur, 1990).

Using co-construction (per peer) knowledge sessions in teacher- led teams.

The flipped (inverted) classroom was defined by the researchers as being an approach implementing a teaching strategy that affects a wide range of learning styles. New technologies allow presentations, traditionally given in class, to take place outside the classroom and events that usually occur outside the classroom to take place in class with the support of the teacher (Lage Pl att and Treglia, 2000).

The Concept or the designation of flipped class propagated around 2007 when two chemistry teachers of the secondary level in the United States, Jonathan Berg man and Aaron Sams (Bergman and Sams, 2008) who asked their students to prepare at home or outside the classroom, or even without the teacher's supervision of the lessons, in order to devote the time of the classroom sessions to the activities (home lesson, classroom homework).

The method is therefore adequate for new pedagogical approaches centered on the learner, his knowledge and skills such as constructivist and socio-constructivist approaches.

The Moroccan university has recently emphasized the need to enhance the learner's skills and the integration of information and communication technologies in the act of teaching. These latter can be used as a learning tool allowing to go beyond the classic model of the transmission of knowledge by the teacher, to an interactive model allowing communication between the different pedagogical actors (learner, teacher, ...).

Indeed the use of these technologies ensures innovation, the modelling of educational systems, and the development of the Moroccan university.

VI. THE E-PORTFOLIO AS A TOOL OF E-LEARNING

A. The E-Learning

E-Learning offers new technologies for learners as well as for teachers to enrich the different ways of learning; it will help to make a passage between the delivery of information in a classical way to the exploration and application of the information and promotion of new knowledge.

E-Learning is therefore a combination of advanced functionalities of information and communication technologies, for example: Video conferencing, Mobile Learning, etc., all of these technologies are intended to create and support experiences and a learning environment.

To have better learning, we can thus mix between real learning (Face to Face Learning) and virtual learning (E-Learning) in a process called ("Blended Learning").

E-Learning can be defined as an electronic device (for computer or mobile) that targets learning.

The prefix "e" shows that the contribution of e-Learning is that learning becomes digital, the word "Learning" refers to what the content will be intended for, learners whose goal is to make them learn.

So E-Learning aims to use new multimedia and Internet technologies to improve the quality of learning by facilitating access to resources and services.

B. History of E-Portfolio

- Put into practice since the 1980s, the e-portfolio of the Anglo-Saxon world is inspired by an experimental pedagogy strongly anchored in the social world with professional aims.

The main objective is to encourage the pupil to take ownership of his work in order to actively construct his learning (Paulson and Meyer, 1991).

- Wales, (according to the challenge launched by the OECD in 2000) has been offering a digital portfolio to each Welsh since 2004 (there are more than 3 million), regardless of their age, place of residence, situation (employee, student, job seeker...).

-EIFEL (European Institute for E-Learning) EIFEL launched the creation of the Europortfolio consortium which proposed that at the end of 2010, every citizen has an EPortfolio.

C. *The portfolio and its uses*

The notion of the portfolio is not recent and it had its origins in the fields of art and architecture. In the context of training, the growing importance of the development and analysis of professional skills as well as the enrichment of evaluation practices, in particular those which combine training and certification have led to the use of the portfolio within training programs.

The E-portfolio is a system for recording skills and achievements that can be argued by other data sources to promote skills and achievements that can be recorded and reviewed by the user and enriched by comments from participants (Lorrain Stefani et al, 2007).

There are four types of portfolio:

-The skills portfolio: a sort of curriculum vitae that shows more than the latter proof of skills, with the aim of employability or qualifying recognition, it is validated by experience.

-Professional portfolio: allows to present an accumulation of the work carried out and to show the distance taken with its work

-The process folio: it is a portfolio where the development process is more important than the object itself.

-The learning portfolio: and the one we are going to focus on, its main characteristic is to provide a global vision of the work carried out for learners.

The E-Portfolio is the digital version of the latter; it is a space for making a collection of information and documents relating to the progress of a user, his development and his achievements.

So it is a space intended for a user to store or collect data in a large time and disseminate it on the web. The E-Portfolio can be used for a variety of purposes, most of which are educational or what is called the Learning E-Portfolio.

D. *E-Portfolio as a learning tool*

The e-portfolio in the digital version will therefore have a lot of roles in learning, the ease of use and adaptation of the digital version will put the e-portfolio in place in learning in an important way.

The e-portfolio can be used as a showcase that will show the work and skills of learners, to present them to teachers or even employers, as well as to be able to make progress afterwards.

VII. CONCLUSION

This article therefore focused on the issue of language teaching in Moroccan universities, and take the case of the French language as one of the main languages in Morocco, following a methodology based on the ADDIE model, the proposed solution is to use information and communication technologies, to use the concept of the reverse class, and by using distance education technologies called E-Learning and more precisely the tool E-Portfolio.

The objective thereafter will be to follow the next steps of the ADDIE model which consists of the development and implementation of the E-Portfolio as a solution to the needs detected in the analysis and design phases.

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