

## DIGITAL EVALUATION OF THE PROFESSIONAL SKILLS OF EDUCATIONAL ACTORS: CASE OF THE E-PORTFOLIO

Mazouak Abderrazzak

Laboratory of Physical Chemistry of Materials, Ben M'sik Faculty of Sciences,  
Hassan Ii University of Casablanca, Casablanca, Regional Center  
For Education And Training Taza., Morocco,  
\* Mazouakabdo@Gmail.Com

Malika Tridane

Regional Center For Education And Training Casablanca, Morocco,  
Tridane.Malika@Gmail.Com

Said Belaouad

Laboratory of Physical Chemistry of Materials,  
Ben M'sik Faculty of Sciences, Hassan Ii University of Casablanca,  
Sbelaouad@Yahoo.Fr

### ABSTRACT

The current evolution of the technological field and the benefit of the introduction of new ICT in schools, suggest that the possibilities of using computer slides in the management of skills in training systems have become very strong or even obligatory.

The transformation of the training system from the face-to-face to the remote and sometimes to the hybrid, has given way to new learning management structures, in this sense digital tools appear as relevant solutions to ensure the discontinuity caused by the internships, strikes and vacations.

The portfolio is one of the technological tools, based on technical pedagogical engineering which includes well-defined stages but at the same time adapted according to the type of design chosen and the desired field of production, including a final objective of promoting skills. socio-professional practitioners.

the e-portfolio is a digital file that brings together the various achievements and projects of a practitioner or a learner not only to judge their work but also to allow them to reflect on their own path during a training course and the challenges that there are to meet and take charge of their own development. However, misuse of the technical task of the trained and the educational task of the supervisors is complex.

Our experimentation will take place in TAZA's center which currently provides training for teachers and administrators, which offers us an opportunity to experiment with the e-portfolio in two completely different training sectors in order to judge its reliability and feasibility. and its contribution to the professionalization of educational practices.

It is true that this device will guarantee better training, will develop several skills at the same time and will open up fields of interaction and exchange, but its implementation remains difficult and even if its creation has advantages, this does not exclude the presence of many constraints and also limits.

**Keywords:** E-portfolio, professionalization, digital evaluation, socio-professional skills.

## INTRODUCTION

For a good ten years, technological reforms have revolutionized the world economy by the accessibility, simplicity, speed and efficiency of innovative tools. And contributes to globalization and the promotion of several public and private sectors.

The educational field in turn became part of this technological reform by adopting new information and communication technologies as media for the transmission of knowledge on the one hand or tools for learning and presentation of projects on the one hand. on the other hand, without omitting the field of evaluation where the imprint of these renovations is very striking.

In initial training but also throughout a teacher's career, the search for professionalization in educational practices is required by taking advantage of ICT in the design, implementation and regulation of educational projects.

Beginning with the engineering program which gave the first hope of integrating technology into the Moroccan educational field, and arriving at the portfolio which is part of a dynamic of self-assessment and metacognition, the portfolio offers trained and holders an opportunity to become aware not only of their progress but also of their position vis-à-vis institutional standards.

## THEORETICAL FRAMEWORK

Our research work then consisted in creating a remote training and evaluation device: the e-portfolio to remedy a set of problems emerging both in the training course of teachers and administrators.

We will defend the idea according to which, the use of e- portfolio as a carrier of progress has a positive effect on the personal and professional development of the practices of the trainees or trainees on the one hand and the incumbent practitioners in the field of education on the other hand.

The scripting of this virtual environment revolves around four major foundations: the first resides in the training routines which are based on written records to attribute judgments and certify learning which puts the quantitative- qualitative of the supporting documents. The second framework deals with the recourse to the files of the trained daily to regulate and correct their productions. The third foundation is achieved by the diversity of stakeholders in the field of training and the omni absence of consultation around the trainees. The fourth field makes major reference to the principles of sharing and socialization, the digital format of which offers flexibility to broadcast and receive feedback hot and cold.

Our conceptual framework will focus on the epistemology of the first-fly e-portfolio and their second-fly multi- functioning.

## EPISTEMOLOGY OF THE E-PORTFOLIO CONCEPT

The e-portfolio is a polysemous concept that takes its roots from the word portfolio or the paper file which is the synonym of `` a logbook " the word originates from Porte-feuills it is found in dictionaries old from the 19th century, the term comes from the English and it designated a double folding cardboard which was used to enclose papers, it had itself been borrowed from the Italian under the name of " portafogli ".

If the portfolio in its paper version is defined as: " the collection of works of a learner or a practitioner who is proof of his skills "by BIBEAU2006" [1]

Its meaning given by A. JORRO 2000 [2] indicates that it is a formal means of professional communication and motivation ". Thus LANDRY and LEGENDRE 2005 [3] advance the idea that the portfolio is an account of the progress of a trainee in his relationship with the training "

In its digital version. The e-portfolio is an online dossier encompassing original and negotiated, validated and organized work. S. BENOIT 2002 [4]. He also known for his originality and his evolutionary and transformed designates and his quality of sharing of work and experiences LAYEC 2006 [5].

## **THE E PORTFOLIO A MULTIFUNCTIONAL CONCEPT**

The use of e-portfolios in the education and training sector ensures quarterly function registers. LATE (2006) [6].

In the first place, the use of this device offers more opportunities for learning and promotes the commitment of trainees or practitioners in their learning process and self-regulation of their project on an ongoing basis. Second, the e – portfolio provides a psychological and motivational function, because the learner or practitioner can compare their productions with those they have done previously and thus see their progress. In addition, it promotes creativity which the practitioner can change colors, shapes or design at any time which promotes motivation. Thirdly, the portfolio facilitates communication between the inter-connectionists and their trainers throughout the learning process and also during the evaluation by being part of a socio cognitivoconstructivist learning approach. Finally, the portfolio serves to collect several traces and proofs of learning, it allows the trainer to make a more accurate assessment of the skills acquired by the learner both hot (formative) and cold (summative).

## **DIGITAL EVALUATION**

The definition of skills evaluation is known as the culmination of a progressive construction between theory and practice, between administrative practices and educational practices with a fundamental objective of rationalizing human resources and adapting them to concerned and material resources.

The e-evaluation or electronic evaluation is the use of new technologies in the direction and management of administrations. It aims, as finality, the improvement of the service and the communication with the personnel and the development of the responsibility and transparency in relations between partners and educational actors [9].

The concept of digital management has its origins in the efforts made by establishments to modernize their practices, innovate their powers and develop their skills and professional aptitudes.

In summary, the e-portfolio is a digital file that brings together the various achievements and projects of a practitioner or a learner not only to judge his work but also to allow reflection on his own path during a training and the challenges that you have to take charge of your own development

## **METHODOLOGY**

### **Engineering of the E-Portfolio**

Choice of e-portfolio type: The e-portfolio engineering is based on a comparative study of the design models of this device named by L.ALLAL 1993[7] in five types in order to detect a synthesis of an exhaustive example adapted to the needs of the trained and the trainer objectives

Our analysis has developed the presentation e-portfolios in the first place in which the trainee presents his production, his successes, his highlights to highlight their skills, then the learning e-portfolios including productions, reflections showing the trainee's progress over a given period, with possibilities to self-regulate in relation to the training program. Also the evaluation e-portfolios which look like outputs in a project allowing the trainer to make a judgment on the skills of the trainee. And fourth, the professional development e- portfolios.

Which bring together the productions and reflections of a person's professional development (internships, experiences, practices, diplomas; professional philosophy, training plan, etc.) whose trainee is more likely to modify and organize their work according to aspirations, strengths and professional challenges.

Finally, hybrid e-portfolios that allow different types of portfolios to be combined and produce different views of their content. A trainee could thus decide to present certain productions to his trainer for him to evaluate (evaluation portfolio). At the same time, in the same portfolio, he could build a presentation

(presentation portfolio) addressed to his peers or to employers. And adds a trainee's progression (learning portfolio)...., Depending on the nature of our training within the regional center by alternation with weeks of training and weeks of internship, also the trainees are called to present an end of studies project at the end of the training. Our device takes its support from the hybrid model which is characterized by completeness and variety and specificity, and offers possibilities of evaluating hot and cold by referring to secure and modifiable passwords. figure 1)



Figure. 1: E-Portfolio Home Page



Figure. 2: The Course Showcases the E-Portfolio Engineering Stage

We will be based on the e-portfolio of the Edu portfolio site created by THIERRY KARSENTI from the University of Montreal which offers a lot of possibilities to create digital files. Our experimentation e-portfolio will cover several sections, namely:

- Personal history ‘‘skills developed and skills under development ‘‘
- The courses (figure 2)
- The summaries made in the light of the lessons
- Presentation presented I the modules
- Workshops
- Research and extensions made on the basis of the training (figure3)
- Online exams and exercises
- Daily internship reports
- Regulations made during internships
- The end of study project



Figure. 3: The Personal Research Showcase



Figure. 4: The Personal Program Showcase

### THE SCRIPTING OF THE E PORTFOLIO

The design of display cases (figures 2 and 3) by practitioner requires compliance with 5 fundamental steps, BARRETT 2001 [8]:

- Gather the contents : the designer gathers the documents which constitute his file throughout his learning
- Select contents: the designer reviews and evaluates the elements they have kept and identifies those which demonstrate the achievement of skills.
- Reflect : the designer reflects on and assesses their own progress over time, as well as gaps.
- Project : the designer compares his thinking with standards and performance indications and defines learning objectives for the future.
- Present: the designer shares his portfolios with his supervisor and their peers. (figures 5) .

We recall that the e-portfolio will be accessible by the designer (access code) and his supervisor (evaluators), and one or more parts will be shared between the members of the group according to the objectives sought or also according to the spirit of sharing among users (figure 5).



Figure. 5: the showcase of sharing icons

The use of the e-portfolio is possible for all teachers of all subjects and also other stakeholders in the field of education who want to develop their strategic organizational, communication and technological skills.

## EXPERIMENTAL FRAMEWORK

### Sampling

Our experiment will take place in the Regional Center for Education and Training of TAZA and which currently provides training for both teachers and administrators.

We will try to experiment with the e-portfolio on the 2 training sectors to give more credibility to the research.

We report that we have reduced the number of trainers in support by 50% to give more value to our experimentation

For trainee teachers:

- Group of 30 trainees working with the e-portfolio with 2 evaluation trainers
- Group of 30 trainees working with a paper portfolio and 6 evaluation trainers

For trainee administrators:

- Group of 20 administrator trainees working with the e-portfolio with 2 evaluation trainers
- Group of 20 administrator trainees working with a paper portfolio and 4 trainers in evaluation results and interpretation.

## THE DURATION OF THE EXPERIMENT

After 3 training sessions on the engineering and scripting of the e-portfolio, our experimental sample worked with the device for a period of 5 months

Let us recall by the same occasion that the use of e-portfolio is planned during the training year 2021-2022 (from December 2020 to May 2021) to evaluate the learning of the trainees in a hybrid training mode

## RESULTS

The collection of results was based on a questionnaire that contains 13 questions with a single rethink of yes or no, the results were as follows:

▪ **FOR TRAINEE TEACHERS**

Table 1: Results of the Experiment for the Trainee Teachers

Trainee Teacher 30 Trained	Without The E-Portfolio		With The E-Portfolio	
	Yes	No	Yes	No
Always Present	60%	40%	100%	
All Lessons Are Included	60%	40%	100%	
My Presentations And The Presentations Of Colleagues	50%	50%	100%	
I Compare Myself With Myself	80%	20%	100%	
I Compare Myself With The Others	20%	80%	100%	
Organization	70%	30%	100%	
Originality	40%	60%	100%	
Immediate Regulation	40%	60%	100%	
Visibility Of Tasks	50%	50%	80%	20%
Project Management	50%	50%	100%	
Trainer Control	25%	75%	100%	
Creativity	30%	70%	100%	
Accessibility	20%	80%	100%	

▪ **FOR TRAINEE ADMINISTRATORS**

Table 2: Results of The Experiment for the Trainee Administrators

Trainee Administrators 20 Trained	Without The E-Portfolio		With The E-Portfolio	
	Yes	No	Yes	No
Always Present	50%	50%	100%	
All Lessons Are Included	30%	70%	100%	
My Presentations And The Presentations Of Colleagues	40%	60%	100%	
I Compare Myself With Myself	70%	30%	100%	
I Compare Myself With The Others	40%	60%	100%	
Organization	60%	40%	100%	
Originality	20%	80%	100%	
Immediate Regulation	20%	80%	100%	
Visibility Of Tasks	50%	50%	100%	
Project Management	40%	60%	100%	
Trainer Control	10%	90%	100%	
Creativity	20%	80%	100%	
Accessibility	30%	70%	100%	

In parallel with the evaluation of the e-portfolio carried out by the trainees, we administered a questionnaire to the trainers to assess the digital management of skills during the training, we present the following results:

Table 3: Feedback from trainers after using the e-portfolio.

Managerial Practices	Feedback	
	Oui	Non
Diagnostic Tool	100%	
Management of Trainee Projects	100%	
Cognitive Performance Management	80%	20%
Management of Time	80%	20%
Rationalize Resources	100%	
Respect of The Hourly Volume	100%	
Collaboration And Social Support	100%	
Formative Evaluation	100%	
Evaluation / Self-Evaluation	100%	
Self-Training	100%	

## DISCUSSION

According to the results of Sandage and the experimentation carried out on the e-portfolio, the use of the e-portfolio in the training of executives in general has made it possible to develop several skills belonging to several fields at the same time because this device has shown its role in:

### THE INTELLECTUAL SECTOR

The results obtained by the two experiments show that 100% of practitioners are satisfied with the intellectual performance of e-portfolios and their positive effects on learning.

In addition, the unlimited capacity of document storage of different kinds and with great maneuverability; and the omnipresence of all the contents, summaries, figures and studies favors the development of a spirit of reflective and in- depth analysis on the learning practices of the trainees and to identify what helps in the immediate regulation of the projects.

### THE ORGANIZATIONAL SECTOR

According to the results mentioned in tables 1 and 2 we notice that the users of the e-portfolio an Ease "of accessing information at any time and all the time, moreover the work remains orderly and organized, which offers excellence and relevance of practices and saves effort.

This organization of tasks and documents can only confirm the visibility and clarity of the project tackled and leave traceability in the scientific path of the practitioners.

### THE CONTINUOUS ASSESSMENT AND REGULATION SECTOR

This sector is very marked by the results of 100% and of the trained and the trainers seen the accessibility and the availability of the contents at any time with a simple click. Moreover, this device is a means of self-evaluation and co- evaluation.

This availability can only facilitate the action taken by the trainers for a guided and targeted and well-founded evaluation. Finally, the remarks left by the trainer are mentioned with other colors or in another window which promotes correction and updating by the practitioner.

### THE SOCIO-PROFESSIONAL SECTOR

The cooperation and assistance of administrators in the projects carried out promotes exchanges and positive sharing of trainee teachers by being part of a socioconstructivist approach based on tutoring and mediation



for a common purpose is the development of transversal skills of all.

The e-portfolio is a means of academic support that offers learners a follow-up with tools and at specific times or continuously.

It is part of a facilitator of intra and interpersonal regulation ensuring exchanges and sharing of ideas at different levels, with different roles.

### THE CREATIVITY AND MOTIVATION SECTOR

Our device is characterized by originality and specificity, it promotes the development of a taste for aesthetics and creativity because everyone can create their file according to the genre or according to the needs of their designer.

Despite the difference in training objectives, missions, content and motivations, the use of e-portfolio to prove its place and its added value whether in the organization of work, in the appropriation of content and in skills assessment

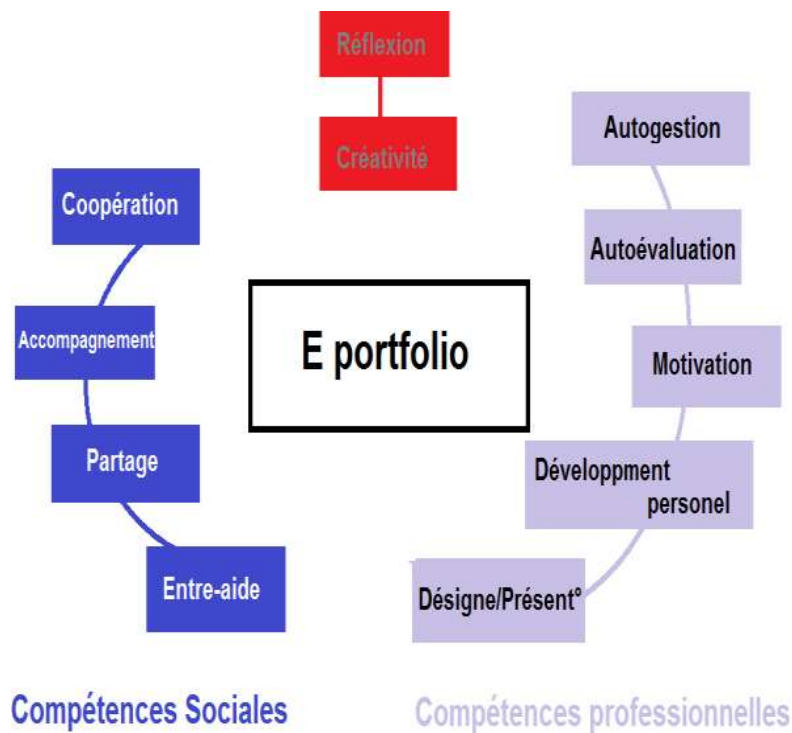


Figure 6: skills developed by the e-portfolio

### EVALUATION OF TRAINERS

For the trainers, we noticed that 100% of the users of the e-portfolio confirmed their satisfaction with the contribution of the proposed tool to set up a multidimensional organization (cultural, cognitive, social ...) of all the activities of the establishment at the same time, adding modern management which facilitated the identification of problems and poor functionality and which then participated in the implementation of a relevant, efficient and high-quality service, whether for the modules of training or for the evaluation and follow-up activities of the trainees.

Likewise, the impact of the IT tool on managerial practices specific to the aspect of social behavior management is assessed by our actors with a percentage of 100%, which explains the usefulness and feasibility of our purpose in the educational mission on the one hand and the development of social skills and life skills on the other.

## THE LIMITS OF THE PORTFOLIO

Despite all the benefits that the e-portfolio can bring, it notes several limitations:

- The time limit: the creation, maintenance and evaluation of e-portfolio require a considerable amount of time
- Reliability: It is difficult to reliably assess e-portfolio
- Technological skills: computer skills vary as much among trainees as among. Likewise, not all of them necessarily have regular logistical access (PC and connection).
- Plagiarism: works on the web can be plagiarized if they are not properly protected by a secure system.
- Confidentiality/Privacy: some information can be divulged without the learner really wanting it.

## CONCLUSION

The digital or the technological phenomenon of the new era is centered immediately in the life of the actors of ' , it has invaded all. Personal and professional, family and social practices

If the portfolio may seem like a demanding approach, the fact remains that it will be worth the investment of time and effort and becomes beneficial when it allows the improvement of important aspects of learning. , self-training, management of professional training or the professionalization of teachers and administrators and evaluation of the learning of trainees. Its electronic form is growing thanks to the dazzling development of ICT.

Today, the e-portfolio is positioned as a device that appeals to both organizational and strategic intelligence and the technological intelligence of the designer.

Digital support, It goes without saying that the e-portfolio contributes to the development of the dimension of creativity, facilitating the organization, storage, accessibility and immediate regulation of content, it is a source of enrichment. The interconnection that it promotes between people, it encourages and motivates its owner to use it throughout life.

## REFERENCES

- 1) Bibeau, R., (2006 ). The Gas Factory Big Brother Portfolio, Bulletin Clic, Montréal, n° 57.
- 2) Jorro. A, (2000). Teacher and Evaluation, in high school portfolio, Montréal, Chenelière.
- 3) Legendre R.(2005). Current Dictionary of Education, CEFES , University of Montréal.
- 4) Benoit.S, (2002) .Guide to creating a Portfolio within the framework of a literacy program. University of Ottawa Press.
- 5) Layec. J,(2006). Self-orientation throughout life: the reflective portfolio, Paris, L'Harmattan.
- 6) Tardif.J, (2006) .L'évaluation des Compétences, Editions de la Chenelière, Montreal.
- 7) Allal.L & Michel.Y,(1993). Self-evaluation and mutual evaluation in a written production situation, in The portfolio, a tool for developing metacognitive regulations and better self-esteem ? Independent project, June 1999.
- 8) Barrette.C,(2001). Electronic Portfolios, Educational Technology: An Encyclopedia, eds. ABC-CLIO.
- 9) Baneres.D, Baró.X & Guerrero-Roldán.AE, Rodríguez.ME, (2016). Adaptive e-Assessment System: A General Approach. International Journal of Emerging Technologies in Learning (IJET). 11 (7), 16–23