Digital Assessment of Learning: Case of the Digital Dashboard (DD)

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ABSTRACT

The current evolution of the technological field and the benefit of the introduction of ICT within schools, suggest the possibilities of using computer slides in teaching practices. The Digital Dashboard is one of the technological tools, based on a technico-pedagogical engineering which includes defined stages but at the same time adapted according to the chosen design and the desired production area. the DD is a tool that allows planning, managing and evaluating the projects of a practitioner or a learner not only to judge his work but also to allow reflection on the difficulties that hinder their practices and the challenges that there are to raise.

Our experiment will take place in the provincial delegation of teaching of Taza, in 4 different disciplines in order to judge the reliability, the feasibility and the contribution of DD in the professionalization of the educational practices.

It is true that this device will guarantee better teaching, 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 presence of many constraints and limitations.

KEYWORDS: *Digital dashboard, teaching practices, instrumentalization, scripting, professionalism*

INTRODUCTION

For a good ten years, technological reforms have revolutionized the world economy through 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 has been integrated into 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 presenting projects on the other hand. on the other hand, without omitting the field of evaluation where the imprint of these renovations is very striking.

The dashboard then appeared as an intruder in this educational field, but its professionalizing mission and its effect of optimizing student performance occupied a large place in the daily practices of teachers.

Although the use of DD has a direct impact on improving the didactic-pedagogical practices of teachers and facilitates the monitoring and regulation of student learning hot and cold and as their use in education to open the field of sharing and communication in order to break definitively with old practices [1]. Its use by teachers in the Moroccan education system is almost absent and this is due to several reasons, personal, professional and contextual.

This study will aim to identify the difference in the use of DDs between teaching disciplines in educational practices (planning, management, evaluation) to justify the results based on the study of the nature of the equipment available and used, as well the technical level of the speakers and the nature of the training received in order to identify the major problems likely to allow us to envisage a vision of

promotion of the use of these technologies in education...

THEORETICAL FRAME

The use of DD in the non-teach sector was no longer a coincidence; but the permanent evolution of the technological field and the development of the services of the educational establishments have transformed the latter into companies also based on the principle of efficiency and excellence.

If the digital dashboard is defined in economics as: "a tool that ensures the smooth running of services and immediate correction of deviations" [2]. it is defined in the school field as being "the set of indicators classified and organized by a person or a team to make the right decision and monitor and regulate the activity of a given sector" [3].

In addition, the classification of dashboards has been the subject of several studies, particularly in economics, some distinguish between reverential DD and computerized DD [4]., While others model DD as a preventive measure; strategic or also balanced [5].

In this case, the multiplicity of roles and tasks within an establishment favors the existence of not only a single board but several (director, censor, supervisors and teachers and bursar) and we even dare to speak of TBN students. Thus the objective of the DD is identical for all users by aiming to improve the teaching-learning process and optimal development of student performance.

METHODOLOGY

A. Dashboard engineering:

The engineering is based on a comparative study of the models in order to detect a synthesis of an exhaustive example

The instrumentalization of DD but in light of 4 major steps [6].: (Figure 1)

➢ Diagnosis of the establishment and logistics of work and the specificity of the students.

➢ The design and implementation of the design of the DD

➢ The implementation of the DD and evaluation of the indicators

➢ The regulation of design, process and content

Our system is characterized by completeness and variety, it offers the possibility of evaluating on the spot by referring to the captioned colors of the columns and indicators evaluated or moving needles (red means an emergency of regulation, green reflects a situation of excellence (Figure 2)

Each criterion in turn is represented by modifiable and adjustable indicators according to the needs of teachers. (Figure 3)
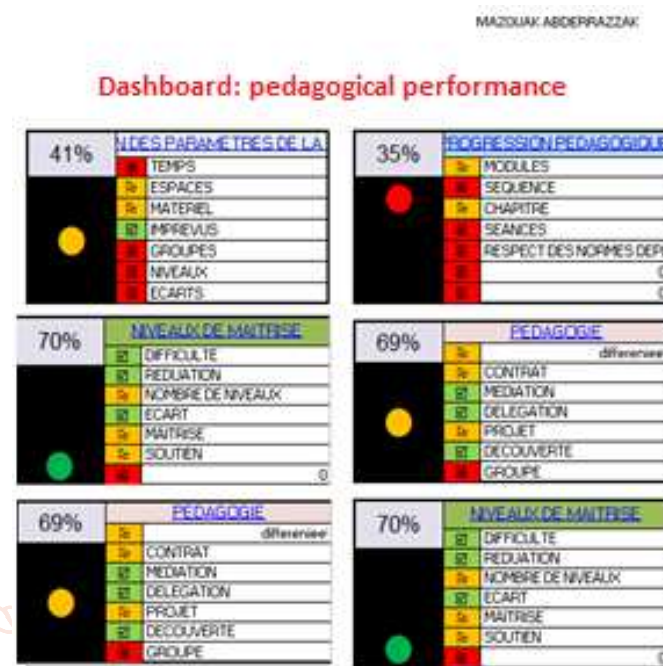

Fig. 1: model of a Digital Dashboard

Fig. 2: evaluation model with Digital Dashboard

Fig. 3: model of learning development criteria.

B. The scripting of the DD:

The use of the DD is possible for all teachers of all subjects and also other stakeholders in the field of education who want to develop their management and management of learning or establishments, with a wide margin of choice of language, colors and tools.

The sample of our experiment was built in a probabilistic way. It is composed of 20 teachers including 6 language teachers, 7 math teachers and 4 SVT teachers and 3 PE teachers.

The request for information is made following 4 surveys, two before the use of the DD and two others just after. Thus we left the choice of indicators and criteria free according to the needs of each teacher.

C. Results and discussion:

Results of survey 1: before using DD :

TABLE 1 Knowledge and use of DD

Questions	Percentage		
	Yes	No	Without opinion
Knowledge of DD	10%	90%	0%
Use of DD	0%	100%	0%
DD makes planning easy	10%	0%	90%
DD makes management easier	10%	0%	90%
DD facilitates assessment	10%	0%	90%
DD develops teacher skills	25%	0%	75%
DD develops student skills	10%	0%	90%

We note that the majority of teachers are unaware (90%) (TABLE. 1) of DD, but also the 10% who have ideas about this device do not use it, so this 10% is well aware of the contribution of DD to the practices taught and consequently on the skills of the students.

Results of survey 2: before using DD:

TABLE 2 PROBLEMS THAT LIMIT THE USE OF TBN

Percentage	Problems					
	Materials	Disciplines	Social	Motivational	IT skills	Others
	10%	5%	0%	0%	85%	0%

Reading the results in Table 2 clearly shows that the major problem behind the non-use of DDs by teachers is the level of technological skills (85%) and since the motivational problems are nil, this means that a simplified solution of the DD puts the availability of teachers with a small guide likely to professionalize their educational practices.

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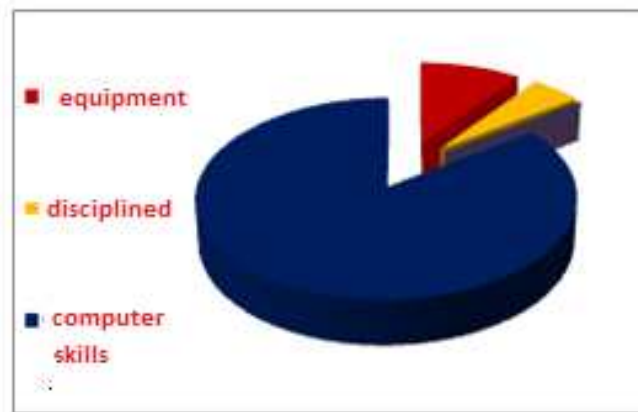

Fig. 4: Percentage of problems limiting the use of DD

Results of survey 3: After using DD:

TABLE 3 Contribution of the TBN to teaching practices.

Skill	Percentage		
	Yes	No	Without opinion
Learning planning	100%	0%	0%
Learning management	100%	0%	0%
Assessment of learning	100%	0%	0%

The results mentioned in Table 3 can only testify to the remarkable contribution of DD to teaching practices, whether in content creation, in managing class parameters or also in regulating, adapting and correcting learner learning.

Results of survey 4: After using DD:

TABLE 4 SATISFACTIONS WITH TBN

Quality	Degree of satisfaction		
	Yes	No	Without opinion
Accessibility	95%	5%	0%
Adaptability	100%	0%	0%
Completeness	80%	20%	0%
Personalization	100%	0%	0%
Self evaluation	100%	0%	0%
Accompaniement	100%	0%	0%

Table 4 reflects a reality of appreciation of this device and the strong estimate of its impact on the development of skills. self-assessment and educational support In addition, all the practitioners appreciated the customization option (100%) proposed.

CONCLUSION

Today we can no longer deny the obvious contribution of ICTE to teaching practices in all disciplines without exception.

Planning, managing and evaluating learning with these tools has become not a request from teachers more than it is a request from students, in fact a need of the students of this century.

The DD confirms this reality since it has modified erroneous representations on technologization. Moreover, its use has made it possible to decide with demotivating routines towards a scientifically demonstrated reorganization of daily teaching practices.

Finally, in-depth training in the use of ICT in the educational field is much desired given the growing gap between the devices and applications that are entering the education sector with force and the limited technological skills of practitioners.

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