

The Interactive Whiteboard in Primary School

What are the uses for teaching and learning French as a foreign language?

Rais, O¹. ; Ibrahimi, A². & Khaldi, M²

¹(Mohamed I University, Faculty of Arts and Humanities of Oujda, Morocco)

²(Abdelmalek Essaadi University, ENS of Tétouan, Morocco)

Corresponding author: Rais Omar

ABSTRACT : The Information and communication technology provide a fertile ground for the renewal of pedagogical practices. The task approach, on the other hand, seems particularly conducive to taking advantage of it. A set of tracks can thus be explored. The present work revolves around the question of the insertion of the Interactive Whiteboard and the associated forum in the foreign French language classes (FLE). It seeks to find a link between the use of the Interactive Whiteboard, changes in teaching practices and the development of learning strategies. It is based on the concept of constructive alignment. The deepening of this theory, in this research, involves observation and interview with children in learning situations and teachers at the French Institute of Morocco and in public pilot schools that have been working for several months with the Interactive Whiteboard.

KEYWORDS: *Constructive alignment; Interactive whiteboard; Information and communication technology; task*

I. INTRODUCTION

Information and communication technologies are one of the most important factors in contemporary society. Teaching and learning is an area that does not escape this influence. As a result, the need to include information and communication technologies in Moroccan schools no longer seems to be a subject of debate.

Rather, it focuses on how information and communication technologies can bring value back to the classroom.

In this perspective, several reflections revolve around the teaching and learning of foreign languages in the digital age. These reflections raise two distinct questions, although they are closely related:

- What pedagogical approaches incorporating information and communication technologies, should the teacher of a foreign language adopt, in order to better promote learning?
- What learning strategies, should The Moroccan learner develop through Information and Communication Technologies, in order to learn better?

Our research is at the crossroads of these two questions and revolves around the integration of the Interactive Whiteboard into the teaching and learning of French as a foreign language. However, is the Interactive Whiteboard a relevant choice? This question makes it possible to define the bases of our study as well as the axes of research which result from it.

Several Moroccan schools have recently equipped their classes with interactive Whiteboard. However, it is not enough to provide a teacher with an Interactive Whiteboard so that this tool have an effect on the way he scripts and manages his lesson.

In this sense, the best learning situation that can promote the development of competence: learning to learn remains linked to the pedagogical practice adopted and not to the technological tool used.

Can we, then, find a link between the use of the Interactive Whiteboard and pedagogical practices on the one hand and learning strategies on the other?

The common thread of this research follows three paths that we formulate here in the form of hypotheses:

Hypothesis 1:

- If the Interactive Whiteboard is a widely used tool in Moroccan schools, its impact on learning should be very noticeable.

Hypothesis 2:

- If the Interactive Whiteboard is widely used in French-language classes, a particular pedagogy should be better suited to its integration.

Hypothesis 3:

- If the Interactive Whiteboard is widely used in the classes of French foreign language, special learning strategies should be put forward by the Moroccan learner.

In this research work, we focus our interest on the inclusion of the Interactive Whiteboard in the classes of French foreign language, particularly in the 6th grade classes of the primary cycle corresponding to the A2 level of the Common European Framework for Languages (CECRL).

The challenge is to motivate learners, teach them foreign language and culture, create moments of interaction and prepare them for a society increasingly imbued with digital technology.

The design and implementation of multimedia and interactive learning devices is necessary. However, this passage must be preceded by a definition of an appropriate learning context and a sketch of uses that could add value to the teaching and learning of French as a foreign language.

To do this, we relied on the concept of alignment, proposed by J. Biggs¹ (1995) and recently revisited by A. Ibrahim² and all (2014). The pedagogical alignment here results from the choice of an educational scenario in line with the functionality of the interactive multimedia environment that accommodates disciplinary content: proposed school curriculum.

The deepening of the theory specific to the use of the Interactive Whiteboard requires, in this research, the observation of learners in learning situations, at the French Institute of Morocco and in pilot public schools. The teachers who participated in this experiment have been working on this instrument for several months.

II. EXPERIMENTATION

1. Background

After the installation in 2012 of Interactive Digital Whiteboard in the French Institute in Morocco and also in public and private pilot schools throughout the kingdom, this study was carried out in order to assess the impact of the proposed techno-pedagogical device on the intrinsic motivation of learners on the one hand, and on the other hand the representation of teachers of the impact of the device.

2. Methodology

Given the importance of the expected results, a number of methods were carried out:

2.1. Questionnaire for teachers using the interactive whiteboard and the associated forum

The questionnaire³ for teachers using the Interactive Whiteboard and the associated forum in the classroom of French as a foreign language, allowed us to determine their perception of the impact of this device. This questionnaire takes into account five major dimensions: motivation, accessibility, quality of teaching, satisfaction and the integration of the device into the teaching of the French as a foreign language.

2.2. Observation Grid for Learners in Learning Situations⁴

Observation is one of the determining factors in our research. To facilitate the collection of information, we propose an observation grid based on the tool designed by Parmentier and Paquay⁵ (2002) and proposed for teachers who are keen to observe and analyze their teaching practices, from the perspective of the skills building. This adapted grid will therefore allow us to observe teaching and learning situations from an exploratory perspective. It is structured around seven axes. The first allows the learner to observe new learning situations (ability to overcome obstacles encountered and ability to make assumptions). The second describes the exploitation of teaching materials on the part of the learner (mobilization of resources, appropriation of techniques, processing and sharing of information). The third and fourth are based on acting and interacting (degree of achievement of the task, confrontation of points of view, tools of interaction, degree of participation within the group). The fifth axis revolves around evaluation (self-assessment, co-assessment, metacognitive methods of analysis and regulation). The sixth is an observation point for the integration of knowledge in the

¹Biggs, J. (1995). *Enhancing teaching through constructive alignment*. *Higher Education*, 32,3, pp 347-364.

²Ibrahimi, A. & all (2014). Dispositif hybride en cours de langue à l'université marocaine. *Adjectif.net* [En ligne], mis en ligne le 07 octobre 2014. URL : <http://www.adjectif.net/spip/spip.php?article316>

³For more details see the questionnaire in appendices

⁴See the observation grid in appendices

⁵Parmentier, P. & Paquay, L. (2002). *Quels ingrédients de situations d'enseignement/apprentissage favorisent-ils le développement de compétences ?* Louvain-la-Neuve, UCL, Département des sciences de l'éducation.

learner (articulation of expertise, linking between learning objects). The last axis allows us to observe the degree of autonomy of the learner (time planning, choice of learning strategies, efficient use of resources, and request for help).

Using this grid, the teachers consulted were able to comment on the results and give their opinion on the cognitive engagement of the learners, their participation and their persistence.

2.3. Collective interviews with class groups

In order to determine the degree of integration of the device into the classroom teaching practices of the French as a foreign language, we proceeded, after each session, to the interviews with the learners collectively, through a semi-structured questionnaire using the emotional dimensions and cognitive of the learner. These questions take into account the utility, usability and acceptability dimensions of the device from the learner's point of view⁶.

Why a semi-structured collective interview?

In most cases, during an individual interview, the interviewer finds himself in an uncomfortable situation in front of children who are not very talkative or unwilling to express themselves. The questioned child is confined to his silence or, in the best of cases, provides vague answers; while the investigator solicits it without obtaining the desired result.

To overcome this difficulty, we used the technique of collective interview for these multiple benefits: "unlocking" speech, facilitation of exchanges, reassurance. Furthermore, in the case of children, other factors intervene: language skills, psycholinguistic skills, opportunities for attention and focus⁷.

Subsequently, to obtain a relatively monotonous linear discourse, the investigator must "inject the energy" that feeds "the machine to make talk"⁸. This is how we can guarantee to catalyze language acts. The semi-directive collective interview is then required and the data collected are so qualitative in nature.

3. Sample

This survey on the use of the Interactive Whiteboard and the associated forum is based on qualitative data relating to a sample of 16 teachers, who are part of the temporary teachers of the French Institute in Morocco (FIM), spread over three academies of the Kingdom. It is also based on the observation of 16 classes of an average of 25 pupils per class; which means 400 pupils in total.

Six teachers experimented with the device in five sites of the French Institute in Morocco (Tangier, Tetouan, Casablanca, Marrakech, AlJadida). While the other ten have experimented in pilot schools spread over the region's regional academies (AREF Tangier-Tetouan-Al-Houceima, AREF Casablanca-Settat and AREF Marrakech-Asfi). They presented the proposed teaching unit according to a teaching scenario integrating both the interactive whiteboard and the forum.

At the end of the experiment, the teachers should complete the questionnaire that was intended for them and send it by e-mail with observations concerning the pupils in a learning situation. In addition, the semi-structured interviews with the learners were intended for only three classes of sites in the north of the FIM.

It should be noted that learners in experimental classes whose age range is between 9 and 11 and a level A2 of the Common European Framework of Reference equivalent to the 6th grade of the Moroccan school. On the other hand, in order to guarantee the success of the experiment, the experienced teachers were chosen from among the FIM contractors. They fly together through the Agora⁹ platform and are in fact led to invent always solutions encountered in their professional practices related to the integration of Information and Communication Technologies (ICT), including the Interactive Whiteboard, in the teaching of French as a foreign language.

III. PRESENTATION OF THE RESULTS

We will present the results of the study according to the following dimensions:

- The impact of the device on motivation;
- Accessibility;
- The quality of teaching;
- The degree of satisfaction;
- The integration of the device into the teaching of French as a foreign language.

⁶See the semi-directed interview guide in appendices.

⁷Trognon, A. (1982). Analyse interlocutoire, langage en situation. *Connexions* 38, 39-59.

⁸Blanchet, A. (1987). Les techniques d'enquête en sciences sociales : Observer, interviewer, questionner. In Blanchet A., Ghiglione.

⁹<http://www.online-village.com/>.

Analysis of the information produced from the questionnaires for teachers will allow us to present some representational data concerning:

- The impact on the teaching process;
- Level of difficulty regarding the installation and use of the device;
- The frequency of use of the Interactive Whiteboard;
- The degree of satisfaction.

On the other hand, the classroom observation of learning sessions will allow us to discuss the following:

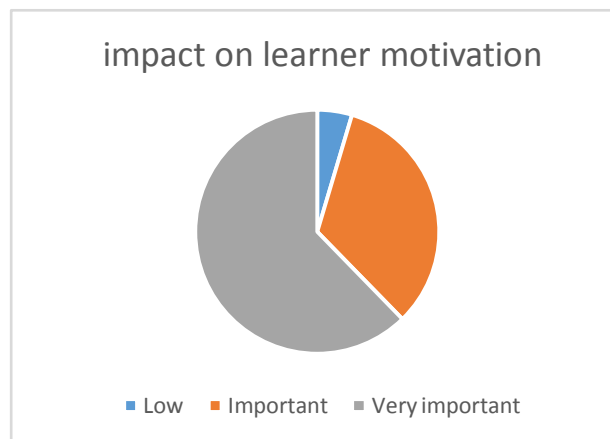
- The relative duration of use of Interactive Whiteboard during a session;
- Type of intervention by the teacher and the learner.

Finally, the semi-structured interviews with the learners will allow us to discuss the integration of the device in the teaching of French as a foreign language in the Moroccan school.

1. analysis and discussion

1.1. Dimension 1: Motivation

Regarding this first dimension, the results obtained were decided in relation to the first question (Q1): the impact of the device on the motivation of learners. Nearly 90% of teachers say they have seen a clear increase in learners' motivation when completing learning tasks.

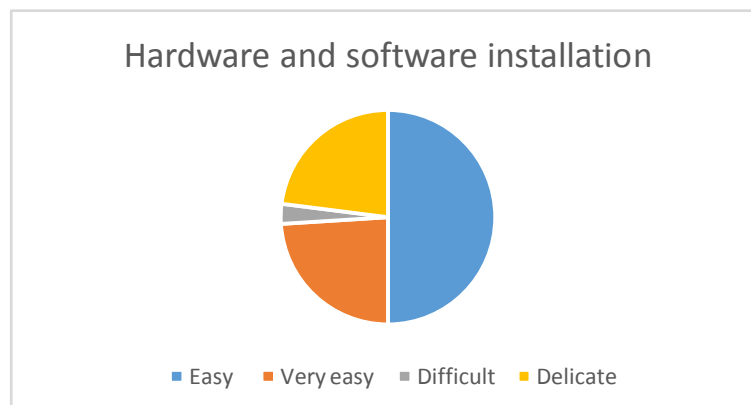


Graphique I : Impact du dispositif sur la motivation de l'apprenant

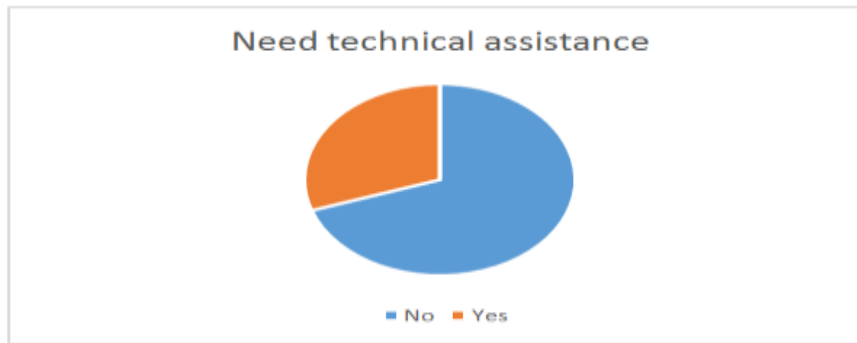
The proposed teaching and learning scheme facilitates the entry of learners into a more attractive and fun learning process, which explains the increase in motivation illustrated by the graphic above.

1.2. Dimension 2: Accessibility.

We measure the degree of accessibility of the device compared to multiple questions. Q3 and Q4 respectively address aspects related to the degree of difficulty of installation of equipment and the need for technical assistance.



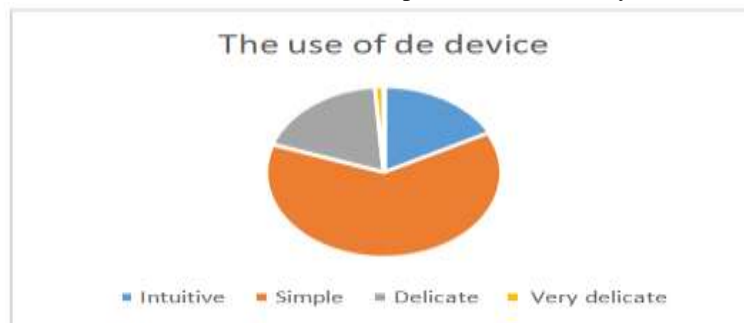
Graphic2 : Hardware and software installation



Graphique3 :Need technical assistance

The obtained results (Graphics 2 and 3) show that the installation of the device is considered mostly practical or very easy, without the need for any external technical support. In addition, the device can be easily installed and used at all levels.

The Q5 attempts to shed some light on the degree of usability of the device. The answers to this question are ordered according to a scale of four values (intuitive, simple, delicate and very delicate).



Graphic 4 : The use of device

Following Heutte and Tempez¹⁰(2008), the use of a simple device reassures the teacher and reinforces his pleasure to teach. Graphic 4 shows that the majority of teachers considers the use of the device simple. Indeed the use of the interactive whiteboard requires little experience in Information and Communication Technologies. Similarly, access to the associated forum is simple given the characteristics of the Claroline platform. In any case, a user guide is available to users to introduce them to this new device.

To better understand all the issues related to the accessibility dimension, it was necessary to ask a question (Q6) about the degree of adequacy of the digital pedagogical resources.



Graphic5: Software resources

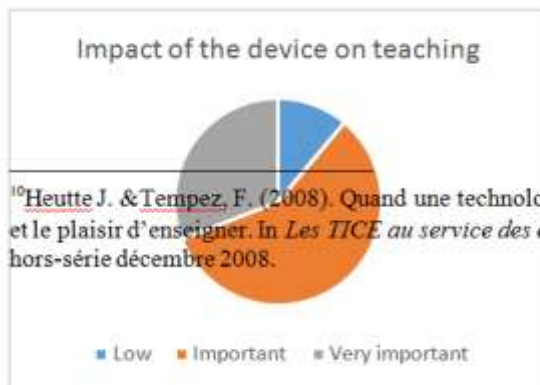
¹⁰Heutte J. & Tempez, F. (2008). Quand une technologie rassurante renforce le sentiment d'efficacité personnelle et le plaisir d'enseigner. In *Les TICE au service des élèves du primaire, les dossiers de l'ingénierie éducative*, hors-série décembre 2008.

The graphic 5 shows that the digital resources delivered by the manufacturer are mostly inadequate for the programs, although they are of good quality.

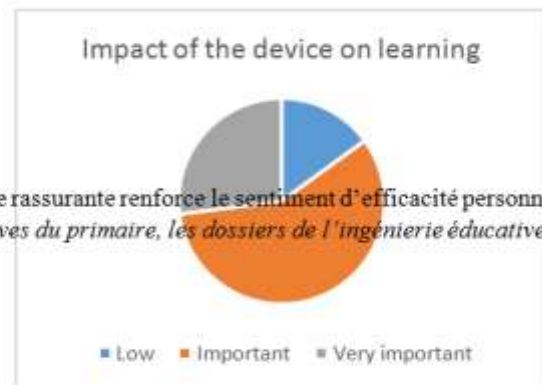
In these conditions, it is up to the teacher to learn the techniques and principles of creating his own resources in relation to his own pedagogical intentions and the needs of his learners. The pooling of resources in a community of practice and the installation of networks of mutual aid and mutualization are essential.

1.3. Dimension 3: Quality of education.

The third dimension that we have been able to analyze concerns the quality of teaching in the teaching and learning system, which is the subject of our research. Q7 takes into account the opinion of the teacher on the impact of the device on the quality of teaching. While the Q8 collects its opinion on the impact of the device on the evolution of skills and the acquisition of knowledge.



Graphic6: Impact of the device on teaching



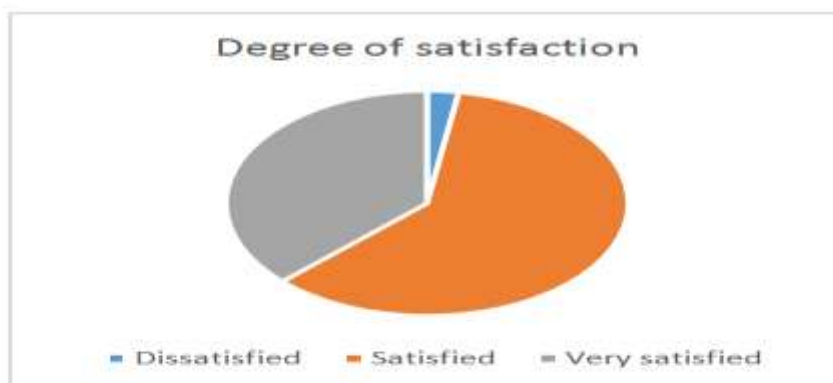
Graphic6: Impact of the device on skills development

The impact of the device on the quality of education is considered important, and sometimes very important. Teachers seem to have a very positive view of the device. The impact on the evolution of skills and the acquisition of knowledge in the learner is estimated very positively.

Following Becta¹¹ (2003), learners are often inclined to work in groups in the face of such devices. It stimulates participation and collective exchange and significantly helps skills development and knowledge acquisition. As part of our research, the data collected confirm that it is more the value of the learning situations that determines its uses rather than the specific characteristics of the artifact. The device alone is not enough to transform teaching practices¹².

1.4. Dimension 4: Degrees of satisfaction

The fourth dimension revolves around how satisfied the teacher is with the device.



Graphic 8: Degrees of satisfaction.

¹¹Becta (2003). *What the research says about interactive whiteboards*. Coventry: Becta.

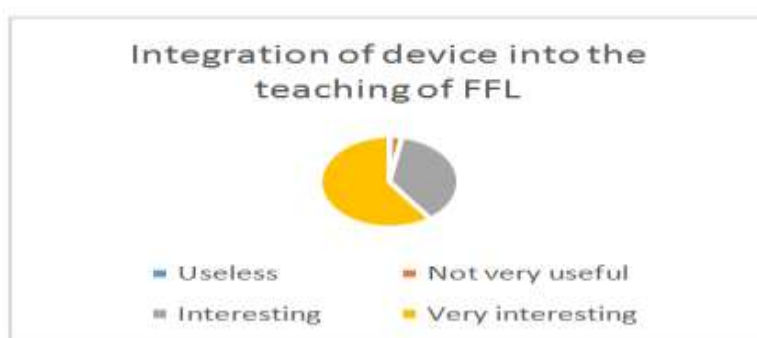
¹²Ibrahimi, A. & all (2014). Dispositif hybride en cours de langue à l'université marocaine. Adjectif.net [En ligne], mis en ligne le 07 octobre 2014. URL : <http://www.adjectif.net/spip/spip.php?article316>

There is a certain satisfaction due to this belief of personal efficiency to fully exploit this device. According to Bandura¹³ (2003), the adaptation to change due to the introduction of an innovative device would be much linked to the feeling of self-efficacy. What is defined by the latter as the belief of people in “their abilities to mobilize the motivation, the cognitive resources and actions necessary to manage any new event”¹⁴. It is in this sense that we wanted to anchor dimension 4 relative to the degree of satisfaction of teachers.

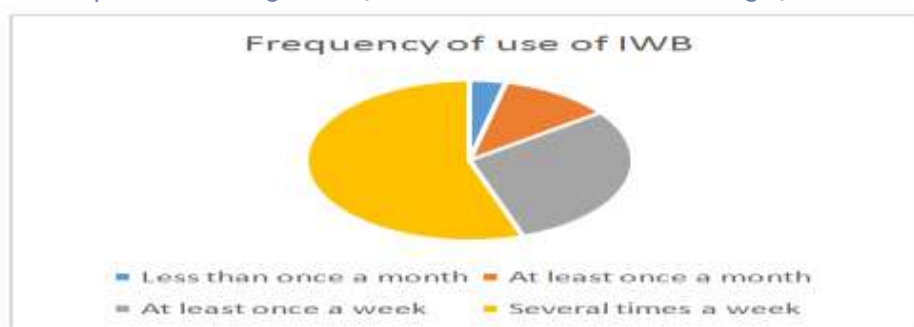
1.5. Dimension 5: integration of the device into the teaching of FFL

Studies have shown that the ability to go through certain stages of ownership is a key element for the integration of the Interactive Whiteboard into language teaching.

This appropriation depends largely on the frequency of use of this tool. Peraya (2012) argues that teachers who have experimented with this tool for many years are using it more and more deeply. Their pedagogical practices have changed in favor of a more interactive and more engaging teaching for their pupils¹⁵. In the same vein, we wanted to measure the degree of integration of this device (Interactive Whiteboard and Associated Forum) (Q16) into teaching French as a foreign language in relation to its frequency of use (Q17).



Graphic 9: The integration of the TBI & Forum into the teaching of FFL



Graphic 10: Frequency of use of IWB

As expected, the Interactive Whiteboard is used almost daily, or at least once a week. This frequency of use explains the results obtained in terms of the integration of this tool. However, integration also calls for better planning of classroom activities.

The device develops group dynamics among learners. At the center of our interest is the question of the contribution of group work for the acquisition of individual expertise in French as a foreign language. In fact, the system relies on collaborative work while emphasizing the "action perspective" advocated by the Common European Framework of Reference for Languages (CEFR), which is the result of several years of linguistic research conducted by experts from the Member States of the Council of Europe¹⁶.

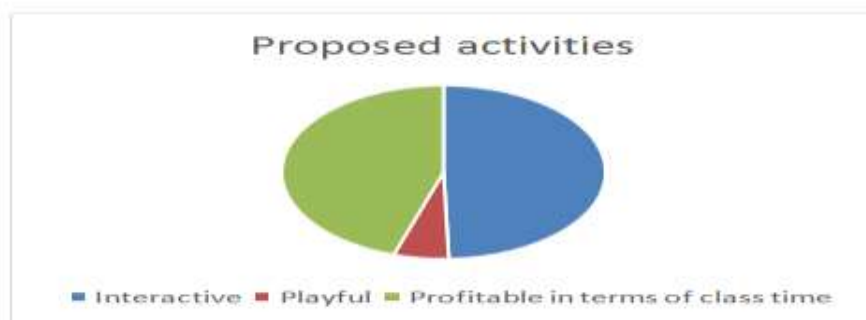
In this sense, we have asked the Q18 for the proposed activities within this system. The results are clearly expressed in Figure 11.

¹³Bandura, A. (2003). Auto-efficacité, le sentiment d'efficacité personnelle. Paris : Editions De BoeckUniversités.

¹⁴Wood, R. & Bandura, E. (1989). *Impact of Conceptions of Ability on Self-Regulatory Mechanisms and Complex Decision Making*. Journal of Personality and Social Psychology 1989, Vol. 56, No. 3.407-415.Zaner-Bloser.

¹⁵Peraya, D. & Peltier, C. (2012). Une année d'immersion dans un dispositif de formation aux technologies : prise de conscience du potentiel éducatif des TICE, intentions d'action et changement de pratique. Revue internationale des technologies en pédagogie universitaire, 9(1-2), 111–135.

¹⁶ Pour plus de détails voir <https://www.coe.int/fr/web/language-policy/home>



Graphic 11: Proposed activities within the device

These results are explained by the fact that the proposed activities make learners work in small teams around the collaborative realization of language tasks anchored in an authentic, fictional or fantastic context. Commitment and perseverance in accomplishing tasks make the time of the class more profitable. This last aspect leads us to see in detail the activities of the learners in the classrooms of French a foreign language.

2. Learner activities

2.1. Learner participation

We find that learners participate more, when they are called to use the Interactive Whiteboard, which was not always the case with the classic painting. Thus, sixth grade pupils, corresponding to level A2 of the CEFRL, demonstrate their will when working with the Interactive Whiteboard. Their teachers believe that previously this situation was rare. The explanation for this lies in the socio-constructivist approach called for by the implementation of learning activities within the system, in which the pupils help each other in carrying out the task according to each person's skills. They have been able to enlarge objects, reduce them, move them and, if the case arises, modify them with great skill, care...

Regarding participation in the forum, the playful aspect certainly played a determining role. Far from any painful and restrictive work, the learners had the impression of participating in a game, an exciting activity that appealed to their creativity and their choice. This is how they found pleasure in participating and applying it. In addition to the fun aspect, the willingness to publish their ideas, their point of view or their production in the forum, as well as the curiosity to know the work of others are all factors that stimulate the motivation of the learners and maintain it throughout of their learning.

Indeed, children expect to see the immediate effects of their work and its practical utility. The forum is an environment that provides this function and allows learners to become aware of what they are doing. Preparations for such work on the forum were as motivating and crucial for the learners as the written production itself.

- Reading activity

Using the BIT, learners are able to recognize words and click on them to reveal the exact answer, which enhances the development of the reading skill. The use of words with hidden words also invites students to discover the answers by moving the masks of a different color according to the grammatical category of the word, which increases the concentration of learners and arouses their attention.

- Grammar activity

Learners are able to recognize different types of words and categorize them. On the other hand, the tool allows them to associate words (compound words, subject, verb ...) between them, it allows to understand more simply the regularities and irregularities of the language. Reflection on the language becomes more interesting and reinforces the development of the metalinguistic competence of the child.

- Writing project

Concerning the project of production of written, at least three sessions were necessary to realize this written production. In order to set up writing workshops, a support on the theme of "travel" has been studied in class (theme joining that of the production of writing). In order for all students to have a readable copy of each written production, computerized capture has become a viable solution for the entire class.

The main uses of the IWB in this workshop were, first, the manipulation of the stylus to point, move, validate choices directly on the board and correct. Then, the choice of suitable pens and highlighters. Finally, navigate through the pages in order to complete the job.

The workshops put in place helped to develop procedures for understanding the text, to grasp the production of writing on the forum of the Claroline platform, to add comments about the other productions on the forum, to share the information. posting written productions on the whiteboard and correcting them collectively.

After digitization and projection on the BIT, the fact of seeing their own productions posted and commented, gives the students satisfaction and motivation because their work is thus recognized by the teacher and by their classmates. This valuation involves them more in the course of the activity. In addition, the spontaneity of the interventions leads to a speed of execution thanks to digital. This makes it possible to rapidly increase the number of "samples" and production proposals. In this sense, it is very interesting to be able to annotate, amend and develop several production versions for the same work.

It should also be noted that learners themselves have perceived the picture as a tool that effectively promotes their reasoning by providing them with multiple technical abilities. Indeed, if the teacher records all the activity, students understand that they can come back at any time which pushes them to intervene much more by asking the teacher. They become more active in piloting the pedagogical sequence. In addition, as part of the awareness-raising exercise, we observed that learners did systematic work on the text and implemented strategies. It was interesting then, from the establishment of the computer functions relating to the Interactive Whiteboard, to continue to focus not only a single correction, but rather the interaction of several corrections. One could even consider strengthening the learning of the written competence by building bridges with the courses given in expression / communication in French, especially as regards the rules of writing and construction of a text. The changes mainly concerned the transfer of strategies. As the experimentation progressed, the learners learned to make them more complex through the exchange of practices. They had consciously implemented the methodological advice we had presented to them during the course. They also had additional opportunities to practice writing as part of the reading files.

It is also important to provide students with opportunities to implement what they have learned, without necessarily having their work sanctioned. Thus, they learn to give an audience to their written production that enhances their work. Before editing the work on the forum the word processing software, assists the editors by facilitating a more thoughtful writing by implementing the operations of co-writing and textual structuring. The cognitive load is thus lighter, especially since the choice of subjects is related to the notions already seen in class. The forum is thus an integral component of the course and not just an aside¹⁷.

Another component is also crucial in the forum, it is the evaluation of the participations of the learners and their written productions. Perceived as a valorization of the efforts made by the learners, it has the privilege to bring the learners to be active in the construction of the apprenticeships.

2.2. Interviews with pupils

Let us recall here that to determine the degree of integration of the device in teaching practices in French as a foreign language, we asked learners, after each session, several questions about the usefulness of the device, its usability and finally its acceptability.

2.2.1. Utility dimension

We first tried to find out if students think they can easily learn using the interactive whiteboard with an ongoing support forum for FLE. Then we targeted the constituency of possible uses of the device.

Apparently, learners find that they learn more easily from the moment they are able to review the course of previous lessons. This allows them to put their ideas in order. This is likely to be the meta-cognitive competence expected in Grade 6 students. However, we found that learners often consulted documents registered on the IWB. The files reviewed were, for the most part, remedial steps.

"Thanks to the written trace, we remember very well the way to do; we can at any time review what we have achieved and it helps us learn better".

The playful aspect is not negligible. Learners no longer seem bored and are therefore more attentive and engaged.

The practical aspects also favor learning. Indeed, acting on the animations and manipulating tools of the IWB or on the forum without just watching, apparently gives learners the feeling of better understanding. They are more attentive and focused on new information.

In addition to these aspects, group work is also a main asset of the learning device. As a group, learners feel more reassured than when they are alone in front of a computer. Working in groups allows them, according to them, to grasp the information, to treat them well and thus to learn better.

2.2.2. Usability dimension

Interactive whiteboards are used regularly, which is confirmed by the questionnaire. More than 53% of teachers use it several times a week. While learners would like to use them daily. This goal can be achieved given the interest of teachers in integrating this system into the learning of FFL.

¹⁷Dumont, C., Vallières, C. (2002). Les TIC en pratique. Trait d'union express.

In addition, computer literacy has a significant impact on learner learning. The more you master ICTs, the less you find it difficult to integrate these tools into classroom practices. The innovative device resulting from this association reinforces this observation.

"*Just know how to turn on the computer*". The device is easy to use since the tools are those of the computer. However, some learners sometimes find it difficult to handle the stylus: it is big and heavy. Notwithstanding this difficulty, learners think that it is possible to do more activities with the IWB compared to other materials available in the classroom. They also say that using a video projector alone without IWB would be compelling because the teacher would often be hidden behind his screen or back, while they prefer to see him in front of them.

In short, aside from the problem caused by the drop shadow, especially for writing, the Interactive Whiteboard makes it possible to make in group-class what one could not do in front of a computer. It is therefore possible to work collectively using computers. This represents an advantage of the IWB regardless of the age level of the learners. While without the interactive whiteboard, it is undeniably difficult to work with twenty or so learners in theaters that, for the most part, lack computer equipment.

From class observations, we found that the Interactive Whiteboards are well placed to be seen without difficulty. Learners will no longer have to writhing to take notes; see a picture or a video. The teacher is also in the field of vision of the learners; their attention is thus sustained. Indeed, constantly moving on their chairs and sometimes between rows makes learners less concentrated.

2.2.3. Acceptability dimension

The majority of learners find the device playful and captivating. They do not get bored or they find pleasure to spend time working in groups. Whereas, when working with a classic painting, they are no longer passionate about work; in addition the dust irritates them, which makes the task less pleasant.

From the standpoint of acceptability, learners in all three classes mostly deplored the impact of light on the Interactive Whiteboard when using it without curtains: they were all uncomfortable when there was a lot of light.

However, although the curtain lowering partly solves the problem, the twilight of the class unfortunately also causes problem by greatly reducing the vision. However, this constraint can now be partly offset by the projector's suspension arms and "short-throw" projectors. Thus this tool ensures a complete field of view for learners and saves them the shadow zone on the whiteboard.

While the forum is very fond of the learners, the teachers add that it produces a very remarkable "extrinsic motivation": the learners who have proposals will be the most solicited and the most read. Nevertheless, if all the groups have succeeded in producing a text in time fixed by the teacher, the dynamics of the groups seem to have had, in this new context, a great influence on the quality of the exchanges between the learners within each group and how this production was made.

IV. CONCLUSION

We have highlighted the potential contributions of the pedagogical articulation of the IWB and the forum in the realization of tasks in a foreign language in a techno-pedagogical device intended for the learning of the FFL (IWB associated with the forum on Caroline in FFL class). In order to verify the second hypothesis emitted in this research¹⁸, we took care to present the pedagogical potential of this device according to an innovative conception of the didactic unit. It is structured according to defined steps via an aligned scripting process. We have seen that through this process, a particular pedagogy will be implemented to better integrate integrative whiteboard into the FFL classroom. The activity diagram thus becomes an indispensable and very effective tool for ensuring the coherence of the educational scenario integrating the BIT. This way of doing things has had a positive impact on learning. The first hypothesis¹⁹, according to the indicators displayed, is completely affirmed because the participation of learners in the various activities (reading, grammar and writing activities) demonstrates a degree of performance in the performance of tasks. This performance is due, in large part, to their involvement and perseverance in carrying out the tasks, supported by a motivation displayed by the indicators obtained during the observation in classroom and during the semi-directed interviews with the pupils. These attest to a very high degree of integration of the device in the learning process, with respect to the various dimensions: utility, usability and acceptability of the device.

The third hypothesis²⁰ is thus rooted in an environment conducive to developing learners' particular learning strategies. Indeed, the implemented device remains an environment that invites the learner to develop specific

¹⁸ If the IWB is widely used in FFL class, a particular pedagogy should be better adapted to its integration.

¹⁹ If the IWB is a tool widely used in Moroccan schools, its impact on learning should be very noticeable.

²⁰ If the IWB is a tool widely used in Moroccan schools, its impact on learning should be very noticeable.

learning strategies in FFL classroom. Interactive Whiteboard captures the attention of learners and promotes interactivity in language courses. The associated forum, gains to favor the exchange under its different aspects oral and written. Once engaged in the discussions, the learners tend to improve the quality of their interventions, while having the will to develop an enriching collaboration with the rest of the participants²¹. This also improves their written communication skills. They learn to put their ideas in order and reformulate their thoughts in a concise way.

The implementation of a collaborative environment aims to create a climate of trust in order to overcome the feeling of failure among learners as the sanction component decreases. Learners encourage each other and share their ways of doing things. Roles and functions are naturally distributed among them, regardless of their level; call them to draw cognitively profit. The comparison that we have been able to perform in relation to individual work highlights these learning strategies. The example of the act of writing becomes significant since some learners, during interviews, found that the physical work of writing on a word processor before posting it on the forum was less painful and faster.

Overall, this range of tools with an educational option helps to reinforce the teacher's motivation to continually improve the writing of the FFL course in order to respond to the language and socio-motivational needs of learners.

BIBLIOGRAPHY

- [1]. Bandura, A. (2003). Auto-efficacité, le sentiment d'efficacité personnelle. Paris : Editions De Boeck Universités.
- [2]. Becta (2003). *What the research says about interactive whiteboards*. Coventry: Becta.
- [3]. Biggs, J. (1995). *Enhancing teaching through constructive alignment*. *Highereducation*, 32,3, pp 347-364. Recovered from the site: <https://link.springer.com/article/10.1007/BF00138871>
- [4]. Blanchet, A. (1987). Les techniques d'enquête en sciences sociales : Observer, interviewer, questionner. In Blanchet A., Ghiglione.
- [5]. Deci, E. L. & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- [6]. Dumont, C., Vallières, C. (2002). Les TIC en pratique. *Trait d'union express*.
- [7]. Heutte J. & Tempez, F. (2008). Quand une technologie rassurante renforce le sentiment d'efficacité personnelle et le plaisir d'enseigner. In *Les TICE au service des élèves du primaire, les dossiers de l'ingénierie éducative*, hors-série décembre 2008. <https://thejournal.com/articles/1998/08/01/eight-ways-to-get-students-more-engaged-in-online-conferences.aspx>
- [8]. Ibrahim, Ahmed ; Rais, Omar et Khaldi, Mohamed (2014). Dispositif hybride en cours de langue à l'université marocaine. *Adjectif.net* [on-line], on-line from 07 octobre 2014. URL : <http://www.adjectif.net/spip/spip.php?article316>
- [9]. Klemm, W.R. (1998). *Eight ways to get students more engaged*. In on-line conferences. Higher Education Journal. Recovered from the site « **THE JOURNAL** » : <https://thejournal.com/articles/1998/08/01/eight-ways-to-get-students-more-engaged-in-online-conferences.aspx>
- [10]. Parmentier, P. & Paquay, L. (2002). Quels ingrédients de situations d'enseignement/apprentissage favorisent-ils le développement de compétences ? Louvain-la-Neuve, UCL, Département des sciences de l'éducation.
- [11]. Peraya, D. & Peltier, C. (2012). Une année d'immersion dans un dispositif de formation aux technologies : prise de conscience du potentiel éducatif des TICE, intentions d'action et changement de pratique. *Revue internationale des technologies en pédagogie universitaire*, 9(1-2), 111-135. <https://doi.org/10.7202/1012906ar>.
- [12]. Rabardel, P. (1995). Les Hommes et les technologies une approche cognitive des instruments contemporains. Université de Paris : Armand Colin.
- [13]. Rais, O. ; Ibrahim, A. & Khaldi, M. (2013). *Le TBI et le forum en classe de FLE*. Actes de la 8^{ème} Conférence Annuelle des Utilisateurs de Claroline (ACCU 2013).
- [14]. Rais, O. ; Ibrahim, A. & Khaldi, M. (2013). *TIC et enseignement/apprentissage du FLE/S au primaire et au secondaire*. Cas du Maroc. Actes du Colloque International REMADDIF 2013.
- [15]. Trognon, A. (1982). Analyse interlocutoire, langage en situation. *Connexions* 38, 39-59.
- [16]. Wood, R. & Bandura, E. (1989). *Impact of Conceptions of Ability on Self-Regulatory Mechanisms and Complex Decision Making*. *Journal of Personality and Social Psychology* 1989, Vol. 56, No. 3.407-415. Zaner-Bloser.

²¹Klemm, W.R. (1998). *Eight ways to get students more engaged*. In on-line conferences. Higher Education Journal.