Perceptions of the IWB for Second Language Teaching and Learning: the iTILT Project

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Abstract. Recent emphasis on target language interaction in task-based, technology-mediated language classrooms makes the interactive whiteboard (IWB) an attractive tool: it constitutes a "digital hub" particularly suited to younger learners who require greater visual support and active learning. However, recent research in UK and French primary classes suggests that teachers do not always use the IWB to promote interactivity and may provide only limited opportunities for synergistic interactivity (Beauchamp & Kennewell, 2010) or unplanned interaction (Whyte, 2011), and this lack of room for participation can lower learners' motivation (Hall & Higgins, 2005). Ineffective exploitation of IWB affordances may be related to teachers' beliefs about language acquisition and pedagogy (Borg, 2006) as well as their views of technology (Orlando, 2009). This research suggests a need for greater investigation of teachers' views on language learning with technology and more longitudinal research and training. This study focuses on an EU-funded project iTILT (interactive Technologies In Language Teaching) on IWBs for communicative language teaching, involving 42 teachers of different languages and proficiency levels from primary school to higher education contexts in seven countries. The paper examines eight teachers in five French and Welsh primary schools in the context of this wider data set: data include pre-training questionnaires on teachers' perceived confidence and competence with the IWB and information and communication technology (ICT) in general; 27 video clips of classroom interaction selected by the teachers for the project website; and teacher and learner interview data. Results provide an overview of the teachers' use of IWB features and tools for particular language learning objectives with specific teaching methods, as well as insights into the perceptions of both primary teachers and learners of how the features of the IWB both facilitate and support effective communicative language teaching and learning in primary foreign language (FL) classes.

Keywords: IWB, interactivity, young learners, teacher education, classroom instruction, EFL, Welsh.

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1. Introduction

The interactive whiteboard often seems an attractive classroom teaching tool since it represents a "digital hub" for multimedia resources and multi-sensory support (Cutrim Schmid & van Hazebrouck, 2010) and facilitates pedagogical interactivity to promote active learning (Kennewell & Beauchamp, 2007). However, teachers do not always fully exploit opportunities for interactive learning with the IWB (Beauchamp & Kennewell, 2010), perhaps particularly in the second language classroom (Cutrim Schmid & Whyte, 2012; Whyte, 2011). The reasons for this include technical difficulties but also teachers' beliefs about learning, technology and pedagogy, suggesting a need for more investigation of teachers' perceptions of these issues.

2. Background

The IWB is basically a computer projected onto a large screen and controlled with the touch-sensitive surface of the board using a pen or fingers. This enables high quality projection of images or text, making the IWB particularly effective for whole class teaching (Gillen, Staarman, Littleton, Mercer, & Twiner, 2007). Although the use of the IWB began with an "exponential increase" in their numbers in UK schools (Mercer, Hennessy, & Warwick, 2010), its use in other countries is also growing (Higgins, Beauchamp, & Miller, 2007).

The IWB provides good quality presentation and motivates learners (Miller & Glover, 2007) in a range of subjects, including languages (Mathews-Aydinli & Elaziz, 2010). This alone, however, would not merit widespread IWB use in education and Higgins, Beauchamp and Miller (2007) note that the IWB can also capture and maintain pupils' attention; increase the pace of lessons; model conceptual ideas in novel ways; and make it easier to integrate and use a range of multimedia resources in lessons. Others (Jewitt, Moss, & Cardini, 2007; Maher, 2011; Twiner, Coffin, Littleton, & Whitelock, 2010) have noted that the IWB also facilitates a multimodal approach to teaching and learning. These benefits apply to learners of all ages but there is evidence that learners in primary school, who form the focus for this study, feel that the IWB can impact positively on their learning (Hall & Higgins, 2005; Şad & Özhan, 2012).

To take full advantage of the IWB, teachers and pupils proceed through developmental phases as they master a range of technical and pedagogical skills (Beauchamp, 2004; Jones & Vincent, 2010; Lewin, Somekh, & Steadman, 2008; Miller & Glover, 2007; Somekh & Haldane, 2005). As teachers gain confidence with the IWB and allow pupils to use it as well, the IWB can be used effectively to orchestrate classroom dialogue (Mercer et al., 2010). Nevertheless, evidence suggests such attainment gains are mainly related to the length of IWB use, with technology becoming embedded in the teacher's pedagogy over time (Somekh et al., 2007).

3. Method

This paper presents preliminary findings from the EU-funded project iTILT on the IWB for communicative language teaching (CLT), whose main outcome is a website featuring classroom video clips supported by teacher and learner commentary, as well as additional teaching resources. Data for the present study concern a subset of 8 primary teachers in France and Wales from a pool of 42 teachers of different languages, proficiency levels and teaching contexts in 7 countries followed in the iTILT project, and include pre-training questionnaires on teachers' IWB use and general ICT competence/ confidence; class video clips (27 clips selected by teachers for the project website), and teacher and learner interview data (8 post-session learner focus group interviews and 8 video-stimulated teacher interviews). The research questions are:

- How confident are teachers a) in using the IWB and b) in their general ICT skills?
- How do teachers use the IWB for language teaching in terms of a) methods, b) tools and features, and c) language learning objectives?
- How do teachers and learners perceive IWB use in the language classroom?

The following section addresses each of the three research questions in turn.

4. Analysis and discussion

4.1. Teachers' confidence in IWB and ICT skills

In a questionnaire administered prior to project training, teachers expressed their degree of agreement with 40 statements on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree or no knowledge of IWB feature in question). These were analysed by using the mean (average) response of the sample with 1.0 being the most positive response, 3.0 representing a neutral response and 5.0 representing the highest level of disagreement with the statements. The questions covered general information, IWB use, and general ICT skills. The group comprised 4 French and 4 Welsh primary teachers, 7 female, and one male (Welsh), all with constant access to an IWB in their classrooms and all currently teaching a foreign language to their own pupils. The teachers from the two countries showed broadly similar general characteristics: 50% of the group were aged 31-40, and had less than 10 years' teaching experience. They differed only in their IWB experience: the French teachers had less than their Welsh counterparts: one was a beginner while the rest had 2-3 years' experience, while one Welsh teacher had 2-3 years' experience but the others more than 6 or 8.

4.1.1. IWB features

Table 1 below shows that teachers in both countries had varying levels of confidence using different tools or features (highlighted in grey in the table, and based on at least six of the eight teachers responding). The most negative response in both countries

concerned the use of additional IWB devices, with only four teachers responding to this statement.

Table 1.

		pen tool	eraser tool	hand recognition tool	split screen tool	highlighter tool	shading tool	underlining tool	spotlight tool
WALES	Mean	1.25	1.25	3.5	4	2	2	1.67	3
	N	4	4	2	2	4	4	3	2
FRANCE	Mean	1.75	1.75	3.67	4.33	1.67	4	1.67	4
	N	4	4	3	3	3	3	3	1

		hide & reveal tool	drag & drop text/ images	playing audio files on IWB	playing video clips	insert images	save students' work	print students' work	addition al IWB devices
WALES	Mean	3	3	3	3	2.75	2.75	3.5	4
	N	2	3	4	4	4	4	4	2
FRANCE	Mean	2.5	1.67	2.5	2.75	2.75	2.25	3	4.5
	N	2	3	4	4	4	4	4	2

4.1.2. IWB access and use

Results in this section were more positive and remarkably similar in both countries. Table 2 shows that teachers had access to the IWB at all times and generally used the IWB for whole class and group teaching, rather than for individual work.

Table 2.

	IWB access at all times, as often as needed	IWB for whole class teaching in L2 lessons	IWB for small group work in L2 lessons	IWB for individual work in L2 lessons	use IWB for every L2 lesson	use IWB every lesson for other subjects
WALES	1.00	1.75	2.75	3.50	2.50	2.25
FRANCE	1.00	2.00	2.75	3.67	2.50	2.75

4.1.3. General ICT skills

All teachers in both countries were confident in general ICT skills as shown in Table 3 below.

Table 3.

	confident using Internet for own purposes	confident using systems to track relevant web pages	confident using e-mail for own use	confident using social networking sites for own use	confident using Microsoft Office or Open Office for own use
WALES	1.5	1.75	1.5	1.75	1.75
FRANCE	1.25	1.5	1	2.5	1.5

4.2. IWB use in classroom practice

The video clips of IWB use in language teaching were coded in terms of IWB-supported teaching method or type of classroom activity, IWB features used, and language area in focus. The latter category focused specifically on learners' use of a second language, including the traditional four skills (reading, writing, speaking, listening) plus pronunciation, vocabulary, grammar and spelling.

4.2.1. IWB teaching methods

The teachers generally selected activities where learners, rather than teachers, were using the IWB: in the 27 clips from the 8 teachers three quarters of the episodes (20 out of 27, or 74%) showed learners at the IWB, mainly individual learners (41%). The French teachers selected slightly more examples of teacher-fronted activities than the Welsh.

4.2.2. IWB tools and features

Embedding images in IWB software pages was the most popular feature for both groups of teachers: 85% of the clips involved photos or clipart. The most common activity type used the drag and drop feature of the IWB (41%), followed by hide and reveal, interactive objects and embedded sound (30% each).

4.2.3. Language areas

Parallel to the high use of images in the IWB materials, the clips showed a strong focus on vocabulary (70%), since the images were generally used to support word meaning in lexical sets (e.g., animals, weather). The second most common language area was reading (41%), with a bias towards the Welsh teachers (9 out of 11 clips). The third most popular language area was listening (26%), where again the Welsh teachers selected more listening activities than the French, corresponding to their greater use of embedded audio in their teaching materials, while the French focused more on pronunciation activities (5 out of 7 examples).

4.3. Teacher and learner perceptions of IWB use

A number of common themes emerged from the analysis of transcripts of teacher and learner interviews. Seven of the eight teachers felt the IWB increased learner motivation (being "fun", "enjoyable", or "appealing"); two said this meant more drilling or repetition was possible. The next more common comment (by 5 teachers) concerned interaction, active learning, and tactile/multisensory features; three teachers added that more learner collaboration allowed the teacher to take a less directive role. Teachers also thought the board allowed more effective teaching ("correct", "clear" input) and greater efficiency (demonstrating activities, saving time). The learners all claimed to enjoy games at the IWB and cited different tools and features which they appreciated.

Some learners also thought the board helped them to learn, or remember what they had forgotten, and made things easier.

5. Conclusion

This preliminary report provides insights into teaching practices in primary schools in two different European contexts. First, teachers are not particularly comfortable using the different tools and features of the board, irrespective of length of experience with the IWB, and in spite of confidence in general ICT skills. Second, it shows a somewhat conservative or cautious approach to IWB use for language teaching, with teachers focusing on a limited repertoire of basic functions such as dragging and dropping images to fulfil relatively circumscribed language learning objectives (vocabulary, pronunciation, receptive skills), often with a teaching method involving an individual learner working at the IWB before the class.

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