

Using interactive whiteboards and webquests effectively in class

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1. Abstract

More and more schools are able to provide technology in the classroom and students like using IT, but is it always effective? Teacher educators need to be aware of the options available and more importantly of how to use technology in the classroom effectively. This paper will look at two aspects of technology in the classroom: the use of interactive whiteboards (IWBs) in part 1 and webquests in part 2.

Interactive whiteboards are a great tool, but teachers need to be made aware of the risk of a classroom becoming IWB-centred instead of student-centred, despite the teacher not speaking at all! What is more, after a while the novelty of an IWB and all its bells and whistles might wear off. This means teachers always need to be able to motivate their students, with or without the IWB. The IWB is simply one of the tools, not the only one.

Similarly, using the internet and asking students to do webquests seems fairly straightforward: give the students some questions, a link, a device to access the link and Bob's your uncle! Little preparation might seem necessary, but the opposite is true. For an effective webquest, it is important to stage the lesson as we would for any other lesson, with a warmer, preparation, the task itself, presenting to the class, and evaluation. This allows students to not only do better searches online but also use the information they found. The latter mimics real life.

2. Sub-theme

This paper falls under the sub theme of digital and effective use of the interactive whiteboard and meaningful web quests activities in class in particular.

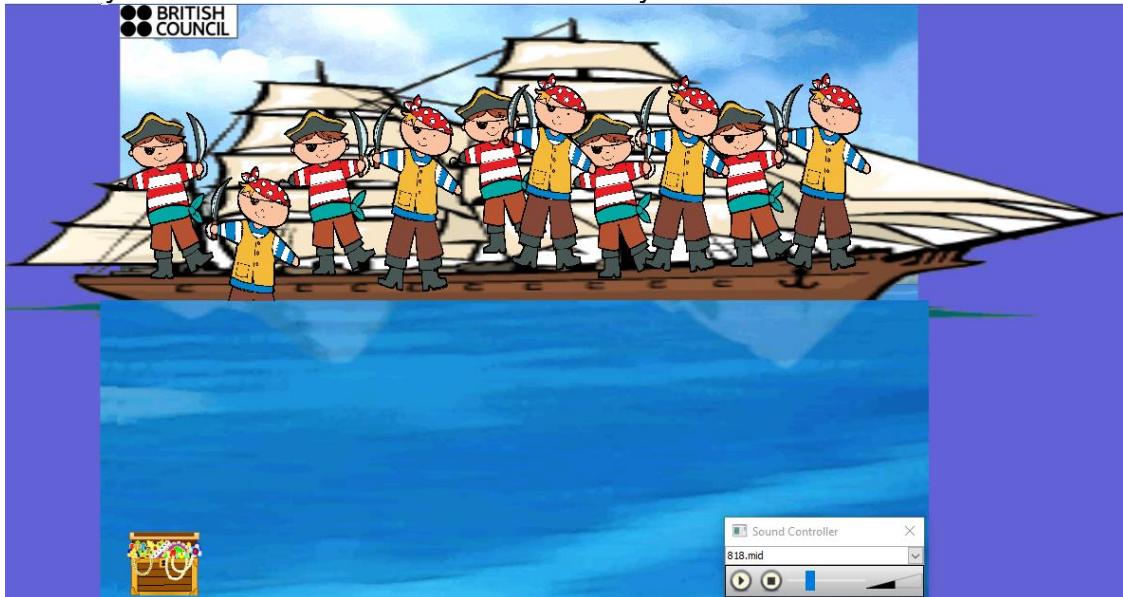
3. Story

Part 1: Interactive whiteboard, friend or foe?

One major advantage of an IWB is that it allows us to quickly access the internet, find a picture to convey meaning and display it (no need for bad drawings!). Videos or songs could be played easily, and flipcharts or Powerpoint presentations can be prepared before class to avoid endless writing on the board during class time. This also helps teachers plan and stage their lessons more carefully.

Friend: the positives

Picture 1 is an example of a flipchart for a Primary class. The song is 'ten little pirates sailing on the sea' (adapted from 'ten green bottles'). Clicking on the treasure chest (bottom left corner) will play the song and the pirates can be dragged into the sea one by one which could also be acted out by ten students.



Picture 1: Ten Little Pirates sailing on the sea (British Council Colombo Young Learner materials)

Another example of the IWB's usefulness is instant feedback for vocabulary activities. In this flipchart (Picture 2) the students need to drag the word and place it on the matching picture. A reward sound will be played if this is correct and if not, the word bounces back to its starting position.



Picture 2: Food vocabulary activity matching words to pictures (British Council Colombo Young Learner materials)

Creating an engaging context for a creative writing lesson is another way to use the interactive whiteboard (Picture 3). A haunting image with fitting sound effects

(thunder, a storm and knocking on the door) is an effective way to engage students and start the creative process.



Picture 3: The haunted house: creative writing (British Council Colombo Young Learner materials)

Foe: the negatives

Even though these examples show how IWB's can add to the classroom, they also highlight one of the disadvantages as well: creating flipcharts like these examples can be very time-consuming. Being able to re-use flipcharts or presentations may justify spending time creating materials, but it is very easy to get carried away.

Secondly, there is a chance that IWBs make a classroom IWB-centred, even though limited or no teacher instruction suggests a more learner-centred classroom. Here are three examples of how this could creep into the classroom. First, Moss et al (2007) found that “the focus on interactivity as a technical process can lead to some relatively mundane activities being over-valued” (p7). In other words, asking students to come to the board to drag things does not necessarily enhance student learning, in fact individual turn taking could slow down the pace. What is more, because students take turns to go up to the board, there is a diminished chance of students discussing answers with a partner, a missed opportunity in a language classroom.

Similarly, from personal experience, it seems that displaying content on the board does not necessarily enhance interaction with the content or language due to the physical distance. Having materials on their tables however does allow students to connect with content simply because of the proximity of the materials.

Lastly, de Vita, Verschaffel and Elen note that “if teachers merely use IWBs in a presentation mode, they can be induced to teach in an expository way, reducing rather than stimulating students' activity ...lead[ing] to a more teacher-centred instructional approach.”

To use or not to use?

IWB's can add something to the learning experience for students: teachers need to be aware of the pedagogical purpose of IWBs as simply using an IWB does not mean it enhances learning. Consequently, teachers need be honest if their IWB

activity will encourage student interaction and/or involvement as that should always be the aim, not showcasing technology.

Part 2: effective webquests

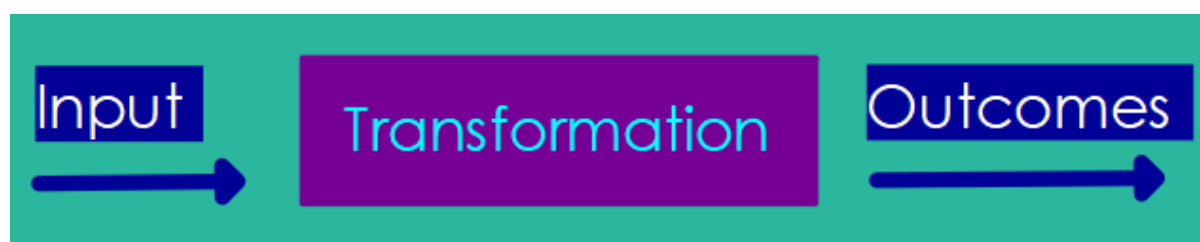
Another positive way to integrate technology are webquests. In webquests, students go online in small groups, research a topic, report back to the class and use this information to give a presentation or create a poster. These activities could be useful as students practise reading, listening and research skills, working together and, depending on the final task, writing or speaking.

To ensure the webquest is meaningful teachers need to go beyond simply setting the task. To do this, the following lesson set-up could be followed (a combination of Dodge and March's layout of a WebQuest and Dudeney and Hockley's suggestions).

Stages of a WebQuest	Example <i>(adapted from March, 2004)</i>
<ul style="list-style-type: none"> ➤ Introduction stage (warmer and preparation) <ul style="list-style-type: none"> ○ This stage engages the learner, introduces the topic and activates students' schemata. ○ The preparation "involves giving background information on the topic and, in the language learning context, often introduces key vocabulary and concepts which learners will need to understand in order to complete the tasks involved." (Dudeney and Hockley, 2004) 	<p><i>Elicit where the Amazon Rainforest is, what the students know about it.</i></p> <p><i>What do students think is endangering the Amazon Rainforest?</i></p>
<ul style="list-style-type: none"> ➤ Setting the task For successful webquests, the task needs to be clear. It goes without saying that the task is motivating and intrinsically interesting to the students. To achieve this, March and Dudeney & Hockley suggest the task to mimic real life, as this will equip younger students with skills essential for their higher studies and/or job. 	<p><i>Do research how we can save the Amazon Rainforest.</i></p> <p><i>Make sure the students are given links to websites they can use to do research (both text and audio/video!)</i></p>
<ul style="list-style-type: none"> ➤ Process stage (research and presenting 'product') <ul style="list-style-type: none"> ○ The students do (web-based) research. ○ At the end of this stage, students share the 'product' of their research, in a presentation, debate/discussion and/or poster. 	<p><i>Make sure the students are given links to websites they can use to do research (both text and audio/video!)</i></p> <p><i>Students present their findings to the class.</i></p>

Stages of a WebQuest	Example <i>(adapted from March, 2004)</i>
<ul style="list-style-type: none"> ➤ Evaluation stage (self and peer evaluation) <ul style="list-style-type: none"> ○ Students contrast and compare each other's work. This could also include selecting the best/most original solution for example. ○ Students reflect on what they have learnt in terms of content and the learning process ○ It could also include students evaluating the teacher! 	<p><i>Students select the best way to save the Amazon Rainforest.</i></p> <p><i>Using a questionnaire, students can share the most interesting fact they have learnt and what research skills they developed.</i></p>

Very often webquests allow students to gather and organise this information. However, to Bernie Dodge and Tom March from San Francisco University who developed WebQuests in the mid-90's, "the main critical attribute of a WebQuest is to facilitate [...] transformation of information into a newly constructed, assimilated understanding." (March, 2004). For example, students do not only investigate to find and present information on global warming and how to deal with it, but they should take a 'global-to-local' approach as March calls it "where, after learning from a variety of perspectives, students use information they have gained from the global examples to apply it to a local scenario". (ibid)



Picture 4: transformation, the key element of a true WebQuest (adapted from March 2004)

March claims that this will truly develop students' critical thinking and other higher order thinking skills of Bloom's Taxonomy.

When we apply this to our example of the Amazon Rainforest, this could be the adapted task: students would then "use what [they] know about the Amazon Rainforest to provide a solution to what should be done about '[their]-regional-threatened-habitat-here.'" (March 2004). This task requires students to create something substantially new with the information gathered instead of a compilation of facts. Students acquiring new knowledge and skills is the transformation March and Dodge are after.

4. Lessons and/or Recommendations

What are the key learning points and/or recommendations from the paper? Here, you will summarise specific insights and recommendations gained by the author and

make connections with points of principle which others should address in future work.

The key learning point for the first part of the paper is that the IWB needs to be used sensibly, not as a tool per se, because student learning and communicating should be the aim, not showcasing the IWB and its features. Schools facilitating training for teachers is of the utmost importance in this. As for webquests, it is important to stage webquests logically. What is more, although students will gain knowledge from doing research, applying this to a similar situation in their local area / their world experience is what transforms these webquests to ways in which students can develop their higher order thinking skills.

5. References

Part 1 – IWB's

Clements, P. <https://eltplanning.com/2016/08/19/interactive-whiteboards-some-pros-and-cons/> accessed on 8 June 2020.

Moss, Dr. G., et al. 2007. *The Interactive Whiteboards, Pedagogy and Pupil Performance Evaluation: An Evaluation of the Schools Whiteboard Expansion (SWE) Project: London Challenge*, Research Report RR816, School of Educational Foundations and Policy Studies, Institute of Education, University of London, Institute of Education.
<https://discovery.ucl.ac.uk/id/eprint/10022066/1/Moss2007whiteboardsRR816.pdf> (accessed 8 June 2020)

Sharma, P. Barnett, B. Jones, F. 2011. *400 Ideas for Interactive Whiteboards: Instant Activities using Technology*. Macmillan.

de Vita, M., Verschaffel, L. and Elen, J., 2018 'The Power of Interactive Whiteboards for Secondary Mathematics Teaching: Two Case Studies', in *Journal of Educational Technology Systems*.
<https://journals.sagepub.com/doi/full/10.1177/0047239518767112> (accessed 8 June 2020)

Part 2 – Webquests

March, T. 'What WebQuests Are (Really)', 2004.
<https://tommarch.com/writings/what-webquests-are/> (accessed 8 June 2020).

Dudeney, G. and Hockley, N., 'Webquests', 2004.
<https://www.teachingenglish.org.uk/article/webquests> (accessed on 8 June 2020)