



Interactive Whiteboard

3.4 USE OF INTERACTIVE WHITEBOARD FOR CREATING LESSONS

3.4.1 Creating interactive lessons

By using IWB in teaching activities, an educator is embedding technology in classroom daily routines. Interactive lessons are engaging and keep the attention of the learners. Such visual resource gives teachers the opportunity to mix different medias, images, videos and sound in the presentation of their materials. The numerous combinations makes it possible to present ideas in different and exciting way. **Interactive lessons/lectures are classes in which the teacher incorporates engagement triggers and make students participate in an activity that lets them work directly with the material.** The engagement triggers are the points, which capture student attention. Such kind of lesson allows students to apply what they have learned or give them a context for upcoming material. In the beginning, the teacher can include one activity during a class, but may eventually use a blend of various interactive lesson techniques all in one class period. Breaking up the lecture with these techniques not only provides format change to engage students, but these activities also allow students to immediately apply content and provide feedback to the teacher on lesson understanding.

Interactive classes include segments of lecture combined with segments where students interact. One of the things that makes the lecture interactive is the ability of the teacher to choose the content of the lecture segments based on the students' needs.

The IWB is a tool for educating that allows the teacher to interact with pupils and to easily model and introduce abstract ideas. At the same time, it keeps students attention and inspires them to think outside the conventional frame giving them new perspective of learning.

The use of IWB has positive impact on both students and teachers. Some of the main benefits of using IWB are:

Makes structuring lessons easier:

Teacher can plan the lesson and can schedule the specific learning tasks. With the use of IWB the lesson is prepared and ready in advance, so delivering of the material will be easier, and the teacher will improve his time management.

Learning process is becoming more enjoyable:

The old teaching methods are not appropriate anymore, especially for the students from this technological era. If the teacher involves interactive whiteboard in the classroom, he/she makes the learning environment more pleasant and interesting. Children will find it easier to follow the syllabus, they will be even anxious to try out how the board works. In such way they are naturally involved in the learning process.

Interaction between teacher and student

Instead of making one-way presentation, teacher can engage the students. For example, he/she can combine text with pictures or video, or audio. The teacher can incorporate a whole visual world in the classroom and can trigger the students interest. Through increasing the level of engagement, they will foster creative thinking and will improve the learning results of their students.

Allows review and revision of lessons

Teacher can share lessons with pupils, so they have the lessons for later, to playback them and review them. He/she can deliver the lesson to students who did not attend the class by recording them and sharing the files. The revision of lessons is more convenient as well, through focusing on important points, which is easy through using IWB.

Appropriate for students with various disabilities

The incorporation of texts, images, video and sound allows each student, including those with learning difficulties, to understand and enjoy the lesson. Students with hearing impairment can benefit from visual presentation. In case of visual impairment, the student can learn from the audio one. The use of IWB practically meets the learning needs of every student.

How to use IWB in teaching

- **Display** - Improve your presentation content. Develop an array of material (pictures, text from Microsoft Word file, graphics, video and audio files). Integrate different type of media for your presentation.
- **Record Lessons** - Record your lessons; take notes and create presentation. Use the appropriate software for screen recording, save the lessons and share them with your students.
- **Use Web resources** - Search the Internet for files available and lectures to use in your lessons. During the lesson, use the Internet for providing students with answers and examples. The more interactive and dynamic is the lesson, the more interesting will be for them.
- **Storage** - Save lessons, notes and discussions, they are accessible afterwards and students can review them.
- **ezTalks Meetings** - is software for sharing screen, text, audio and video in real-time.
- **Interactivity** - Engage students by encouraging them to give an instant feedback for the lesson, to contribute with ideas and suggestions for the learning process.
- **Games** - A creative teaching method is to use games such as rearranging jumbled texts/ objects or drag and match. Modifying games according to the specific objectives is possible.
- **Group Interaction** - Encourage group participation and discussions. Do brainstorming, let the groups on the IWB to present their ideas and to make notes. Share the saved result with the class.
- **Emphasis** - Use IWB's patterns, such as movement or colour, to emphasise on word, or group of words or ideas.

More ideas for using IWB:

<http://www.psychology.sunysb.edu/hwaters/psy327/articles/Whiteboards%20in%20the%20Classroom.pdf>

When a computer is used for interactive group work it can stimulate collaboration and a high level of on-task discussion. The screen enables all children to share a common experience, a single keyboard forces the team to reach consensus before any entry can be made, and the presence of an external focus can help with the development of social skills. The interactive whiteboard is an even more powerful stimulus to interactivity because:

- everyone can write on it and changes can be saved – this gives shared ownership
- it has high visual impact, creating a theatrical effect in the classroom
- it facilitates better class control/management – the teacher can be at the front, facing the class
- it makes a wide range of resources instantly available
- presentations and such like can be annotated by teacher and pupils
- it engages pupils – getting them moving and participating and improving behaviour
- it facilitates concept mapping – items can be moved easily around the screen
- it supports discussion (on topic) and learning from other pupils
- it is motivating, because both teachers and children enjoy using it.

3.4.2 Facilitate different learning styles

All teachers should strive to enhance learning process of their students, try to understand their learning style, thus address their needs. Interactive whiteboards are great means to support different leaning styles of the pupils.

Visual Learners

Individuals who fall into this category typically learn through what they are able to see with their own eyes. Visual learners are those students who jockey for the positions at the front of the class. Visual learners have a tendency to describe everything that they see in terms of appearances. These learners love visual aids such as photos, diagrams, maps and graphs. Visual learners frequently are good writers and commonly perform quite well on written assignments.

Auditory Learners

Auditory learners are very good listeners. They tend to absorb information in a more efficient manner through sounds, music, discussions, etc. These individuals will be more likely to record lectures so that they can replay them later for study purposes. Auditory learners appreciate audio books and may find that reading aloud will help them to retain information. Rather than written reports, auditory learners tend to do better on oral presentations and reports.

Poems, songs, music, and speeches can enhance auditory learning, and the whiteboard is a good forum for encouraging such expression.

Kinaesthetic Learners

Kinaesthetic learners are tactile learning. This means that they learn best through moving, doing, acting out and touching. Projects that are hands-on in nature are best for kinaesthetic learners. Kinaesthetic learners tend to become frustrated when they must sit for long periods of time. They enjoy conducting experiments, exploring and performing tasks.

Kinaesthetic or tactile learners are typically difficult to engage in traditional classroom activities that are usually more visual or auditory in nature. They are able to reinforce learning through exercises involving touch, movement and space on an interactive whiteboard.

3.4.3 Know examples of exercises you can do on IWB

Interacting with the context of a lesson

Using interactive whiteboard is a great opportunity to introduce new techniques, exercises or lesson content. Here you can find some of them:⁸

- A class explore the concept of symmetry

Rather than completing symmetry tasks for pictures from a book, students can identify symmetrical objects in the room. A teacher can take picture of the objects in the classroom. The photos are displayed on the interactive whiteboard, while a white square is placed over half of the object. The students estimate and draw the outline of the covered part of the object. After that, the white square is removed and the students are able to assess the accuracy of their estimation of symmetry. Very often, the most engaging objects are students' faces.

- Cloze Exercises

You can scan a page from book, that the class is currently reading and display it on the board. By using a thick pen with white colour, the teacher can draw over selected words, hiding

⁸ https://www.edubcn.cat/rcs_gene/9_teaching_interactively_whiteboards.pdf

them. The result is an immediate cloze exercise, set in the context of the class' learning. When correcting, you just move the white pen away from the covered word. This could be done letter by letter to give a hints to the students. In this way, you can engage students who are usually not interested in reading, but you can motivate them by completing a cloze exercise. You can even download an article from the Internet, matching interests of your pupils.

The little frog sat on the It was morning and the had just come up. The frog was catching the that flew by with his long tongue. A fly by. The frog to catch him. He was too away. The frog for another insect to come by.

Word Box

sun came far tried waited log insects

Figure 10 Cloze exercise

Interacting with the content of the lesson

- Sentence structure

First, you place a seemingly random set of words and grammatical notations on a notebook page. Students are asked to create sentences by dragging the words into a correct order. Then they can be asked to rearrange the sentence to create a question.

- The Internet for comparisons of two sides of issues

The Internet is a great tool to invoke a discussion for controversial topics and can be used as a source for information. The class can compare and highlight the points of view, summarizing the arguments in using mind mapping software.

Interacting over time

- Use of save lessons and work

You can use your saved lessons and work of your students to point out links between different topics. Students often like to discuss their previous work, especially in the light of new knowledge, they have gained.

Enhancing classroom discussion

An interactive whiteboard is an ideal focus for classroom discussion, providing opportunities to raise questions and stimulate exploration. Various techniques may be used, including:

- Using a picture as a stimulus for discussion

Interactive whiteboard software has a rub-out-to-reveal facility. This involves placing a layer of colour over the top of a picture to hide it, and then using the eraser to reveal the picture a bit at a time. One teacher used this technique to stimulate discussion to help pupils formulate ideas for writing. A single detail is revealed and the pupils are asked to describe what they can see and to predict what else might be in the picture. Pupils are encouraged to invent a story to explain the image and to add annotations in the form of speech bubbles and other comments before the whole image is revealed to the class. The spotlight tool, available on most whiteboards, could be used in a similar way.

- Using written prompts

Another facility is the drag-and-drop. You can use it to stimulate discussion about what children already know about the earth, sun and moon. You can prepare a screen with a circle in the middle and a selection of key words and numbers around the edge (e.g. 365, month, rotate, eclipse, tides, night, 24, sun, moon, axis, orbit, day, earth, shadow). Pupils are invited to come to the whiteboard and drag two of the key words into the circle and then talk about them. This prompted statements such as "The moon orbits the earth" or "The earth takes 24 hours to rotate." The use of key words and the theatrical effect of standing at the whiteboard are more effective in encouraging children to articulate their knowledge than simple teacher questioning would have been. This technique can be used effectively in many different subject areas.

- Sorting

Example: A primary school class was exploring what homes were like a long time ago. The teacher had prepared a page of images of old and new things found around the home. This contained clip art, digital photographs, images captured from the internet and scanned pictures from magazines. Children came to the front of the class to drag and drop an item into the appropriate 'old' or 'new' box. As they did so, each child was asked to say or ask something about the chosen item, for example "My gran uses a tea cosy" or "That looks very old – what was it used for?" The activity was used to stimulate general class discussion, and although it took time to set up, it was kept on file in the teacher's resource bank and used with other groups of children in other classes.

- Text-disclosure activities

Within a literature class, a teacher present the class with an extract from a poem, hidden like in a text-disclosure program. The screen display consists only of a star for each letter and all the punctuation. The children are told that the bold stars represent capital letters, and asked what they can deduce about the text. Apparently, they will agreed that it is a poem because

of the layout, and that it contains proper nouns/names at the end of the first line and elsewhere. The single-letter word is predicted as an 'a' and all other occurrences of the same letter are filled in throughout the text. Three-letter words beginning with 'a' are then predicted as 'and' and occurrences of 'n' and 'd' also inserted.



Figure 11 Text-disclosure activity⁹

3.4.4 Know different resources

In order to get the most out of the interactive whiteboard in your classroom, you need to plan your lessons and digital and web-based resources. Nowadays, there is a wealth of both free and priced digital resources available to make teaching and learning really effective.

- **Pbslearningmedia.org** page offers a great number of free resources, videos, media gallery, games, lesson plans, etc., categorized by subjects, grades or resource type. After creating a free account, you will gain a full access to the website.

<https://www.pbslearningmedia.org/>

⁹ https://www.edubcn.cat/rcs_gene/9_teaching_interactively_whiteboards.pdf



Figure 12 Pbslearning media platform

- Platform **Topmarks** provide variety of resources for interactive whiteboard, which are organised by subject, age group and category.

<https://www.topmarks.co.uk/INTERACTIVE.ASPX>



Figure 13 Topmarks platform

- **Crickweb** is a free online education resources and games for Primary/ Elementary schools.

<http://www.crickweb.co.uk/ks1literacy.html#wordorder1>

- **Starfall** is a free website to teach children to read, including language arts and mathematics for preschool, kindergarten, first grade, second grade, and third grade. The founder of the program, wanted to create a website with untimed, multisensory interactive games that allow children to see, hear, and touch as they learn, since he had a difficulty to read, when he was a child, therefore these activities are suitable also for kids with dyslexia.

<https://www.starfall.com/h/>

- **British museum** website has a great bank of resources related to history, art, cultures, math and numeracy, etc.

https://www.britishmuseum.org/learning/schools_and_teachers.aspx

Here, you can find more interesting websites and resources for your lesson:

<https://sites.google.com/site/resourceslaboratory/home/interactive-whiteboard-material/websites-with-resources>