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Smart interactive whiteboards and Their Role in Developing EFL/ESL Learners' Writing Skills

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ABSTRACT

A number of advantages for students related to the general use of technology in classrooms have been reported. These include increased motivation, improvement in self- concept and mastery of basic skills, more student-centred learning and engagement in the learning process (SteppGreany, 2002). Additionally, there seems to be a beneficial multimedia effect, especially for low achieving students, when it is used to illustrate concepts and organize factual information (Nowaczyk, 1998).

Generally, English Writing skills via electronic tools are important motivators for learners to apply English writing techniques and mechanisms practically. They are effective techniques for reinforcing the written language material. Smart Interactive Whiteboard is one of these electronic devices which can be a proof of our learners' achievements. It is a communicative skill to exchange messages with the help of collective devices, touchable boards, solid objects, colored pens, and colored highlights.

Key Words: Proof, Communicative, Collective, Advantages, Devices, Beneficial , Factual, Motivation..

Introduction

It is noticed by the writer of this research paper that some foreign and second learners have different difficulties in writing in English via Smart Interactive Whiteboard. Some of these students have no exact knowledge of using Smart Interactive Whiteboard. This paper offers a golden chance to all English language learners to be aware of the use of Smart Interactive Whiteboard to elaborate their writing skills with a high motivation. This research paper investigates and verifies the difficulties of using Smart Interactive Whiteboard by some EFL/ESL learners in developing their English writing skills.

The aims of this research paper are:

1. To investigate the difficulties of some EFL/ESL learners.
2. To find the important relationship between Smart Interactive Whiteboard and English language writing skills.
3. To explain the reasons behind some learners' difficulties and to suggest technical solutions to resolve the problems. Moreover, to draw out relevant suggestions which would help the students in learning writing skills via Smart Interactive Whiteboard.

As Wetzel, (2002) explained the uses of SBN in details, he reports that Smart digital ink operates by using an active digitizer that controls the PC input

for writing capabilities such as drawing or handwriting. The Smart interactive whiteboard uses passive pen tools, which means that no technology is housed in the pen tool to use digital ink or determine colour. All digital ink options can be selected from the Smart Board Pen Tray.

Most models of Smart Board include a pen tray on the front of the interactive whiteboard that holds two to four plastic pen tools and an eraser. The pen tools have neither electronic components nor ink - the technology is in the pen tray. When a pen tool is removed from its slot in the tray, an optical sensor recognizes its absence. Smart Board software processes the next contact with the interactive whiteboard surface as a pen action from the pen tool that resides in the corresponding slot. Older models of the Smart interactive whiteboard features slots for black, blue, red and green pen tools, although a control panel can be used to change the colour of the digital ink or change the pen tools to coloured highlighters.

Once a pen tool is removed from its slot, users can write in the selected colour with that pen tool, a finger or any other object. Similarly, when the eraser is removed from its position in the pen tray, the software processes the next contact with the screen as an erasing action, whether the contact is from the eraser, the user's finger or another object. As such, the potential exists that using a particular pen, such as the blue pen, may not result in blue digital ink if all objects coloured pens and eraser tool have not been replaced in their corresponding locations on the pen tray. The Smart Board also registers the last pen tray tool picked up as the active tool. This means that when a user picks up the black pen and then picks up the red pen before putting the black pen down, the interactive whiteboard will register red ink, rather than black. In order to write in black digital ink, a pen needs to be put back in the red slot.

The Smart Board 800 series interactive whiteboard has only two pens and the colour is determined by pressing a black, blue, red or green button found on the pen tray.

The earlier Smart Board 600 series interactive whiteboards use resistive technology. A flexible plastic front sheet and hard backboard are

coated with a thin resistive film. The resistive sides of each are separated by an air gap of two-thousandths of an inch, or about the width of two human hairs. Pressure applied to the surface of the front sheet closes the gap and is registered as a contact point. This contact point is then converted from an analog signal to a serial data stream which is sent to a computer for further processing. This technology can process contact from a finger, pen tool or any device – such as a pointer.

Smart Notebook software is included with the Smart Board and allows users to compile notes, images, and other media into virtual notebooks which can be projected and edited using the Smart Board itself. Other Smart software products, like Smart Response interactive response, the Smart Document Camera, Smart Ideas concept-mapping software, Smart Notebook Math Tools and Smart Slate wireless slate are designed for use with and can integrate with the Smart Board for other tasks. The Smart interactive whiteboard works with any program loaded or available on the host computer. Some applications commonly used with the Smart Board are Microsoft PowerPoint, Excel, Word, and AutoCAD.

Uses of Smart Board Notebook

Uses for the Smart Board include teaching, training, conducting meetings, and delivering presentations. It has also been used on the Discovery Channel television show *MythBusters*. Using Smart Notebook software, teachers can record each step of a lesson activity for students to review at a later time.

Johndan Johnson-Eilola describes a specific computer-supported space for collaboration: the Smart Board. According to Johnson-Eilola, a "Smart Board [interactive whiteboard] system provides an... intelligent whiteboard surface for work". Johnson-Eilola asserts that "[we] are attempting to understand how users move within information spaces, how users can exist within information spaces rather than merely gaze at them, and how information spaces must be shared with others rather than being private, lived within rather than simply visited". He explains how the Smart Board interactive whiteboard system offers an information space that allows his students to engage in active

collaboration. He makes three distinct claims regarding the functionality of the technology: 1) the Smart Board allows users to work with large amounts of information, 2) it offers an information space that invites active collaboration, and 3) the work produced is often “dynamic and contingent”.

A Guide of Using Notebook Software

The Notebook software activity guide is intended to act as a reference of the best practices for creating and presenting lesson activities using Notebook software. This guide assumes students are already familiar with the basics of Notebook software, such as how to write in the work area, how to add new pages to their Notebook files, how to navigate from one page to another and how to select and move objects on a Notebook page.

Designing lesson activities

Lesson activities need to be designed for both content and presentation. The SMART Board interactive whiteboard is a visual and an interactive medium. Knowing a little about design and the best practices on how to integrate interactivity using Notebook software will help students create lesson activities that meet curriculum learning objectives and engage students. Creating content in Notebook software with the knowledge it will need to be presented in a classroom setting will ensure students lesson go smoothly.

Content _____ Presentation

Once students have determined what content they will be teaching, they have to create a title page and write their teacher's notes at the beginning of their lesson activity. Titles and teacher's notes focus on learning objectives and provide important information to any other teachers who use the lesson activity.

Setting up a page

Once teachers have an idea for a Notebook software lesson activity, they will need to start designing their page. One of the first things they will want to do is decide on a background colour. When choosing a colour, they have to keep in mind that very bright or intense colours can be distracting and draw attention from the page content to the background. A bright yellow might seem like a fun choice, but it may also distract from other elements on others' page. Teachers have to reserve

the most vibrant colours for individual objects on their Notebook page to which they want to draw students' attention.

Teachers must select a background colour by selecting **Format > Background Colour** from the Notebook software menu. A colour palette will launch from which they can choose the background colour of their Notebook page. Next, they should choose the fonts they will want to use for the remainder of their lesson activity. When they are choosing a font, they are choosing how their text will appear in Notebook software. For example, Times New Roman, Comic Sans and Arial all look very different. If possible, the teacher has to try using only one font throughout his lesson activity. Too many fonts can be distracting to the eye and draw attention away from important points.

He should consider the size and colour of text he will be using throughout his lesson activity. Good choices will make it easier for all his students to read the text on his Notebook page. Once he has decided what his text will look like, make sure he keeps it consistent to give his lesson a nice flow from one page to another.

General guidelines for choosing fonts for teacher's Notebook software lesson activity include the following:

- Titles should be at least 28 point and a bold type face.
- Text used for sentences and paragraphs should be the same font as the header, 22 point and in a regular type face.
- Make sure the font chosen colour is easy to read and see against the background colour he has chosen.

Working with fonts in Notebook software

One way to set a teacher's font is to select his text and use the functions available from the Fonts toolbar. The Fonts toolbar appears whenever he is typing on the Notebook page or after he double press a text object.

-Font size

-Bold, italic,

-underline

-Font colour

-Alignment, lists, subscript,

-superscript and special characters



Figure: (1)

If a teacher knows a user will be using the same font over and over, he may want to set up a permanent font style under the Text button. To do this, he should press the arrow beside the Text button on the Notebook software toolbar and select **Customize Text**. The Customize Text dialog box will allow him to tailor the fonts available from the text button drop-down menu to the styles he/she will use most often.



Figure: (2)

Adding interactivity

One of the benefits of Notebook software is the ability to modify objects on the page. This section will focus on some of the different ways you can engage your students by designing interactive lesson plans.

Revealing

One of the quickest ways to add interactivity to a lesson activity is to hide the answer to a question behind an object on the Notebook page. The following information will provide three different methods that the teacher can use to create reveal activities that can easily be integrated into any curriculum.

Moving and revealing

One way to create a reveal activity is to hide an answer behind another object.

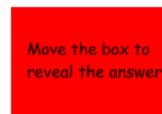
1. Type his/her question and answer
2. Draw a rectangle and fill it with colour to hide the answer
3. Double-press the shape for the ability to add text to it – ensure his/her text is a different colour than the rectangle
4. Type *Move the box to reveal the answer* – they are adding instructions to the shape so other faculty members or a substitute teacher will be able to work with the file. Without the instructions, someone might assume they are supposed to write the

answer over the shape instead of moving it to reveal the answer.

NOTE: It is a good practice to select **Order > Bring to Front** from the drop-down menu on any object a teacher will be using to cover an answer. This action will ensure his/her students don't see the answer before it is time for it to be revealed.

5. Move the shape to reveal the answer

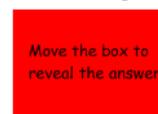
What is the national animal of England?



Before

What is the national animal of England?

The lion



After

Figure: (3)

Erasing and revealing

Another way to reveal information is with the Eraser tool. The teacher should:

1. Type his/her question and answer
2. Use a pen to cover the answer with digital ink
3. Select the digital ink and set it to the same colour as the page background. For example, if the page background is white, then the digital ink should also be white.
4. Select the **Eraser** tool, and erase the digital ink covering the answer. The Eraser tool will only erase objects created with digital ink. Anything typed with your keyboard cannot be erased with the Eraser tool.

TIP: He/She may want to add instructions that let the class or other teachers know that all they need to do is to use the eraser.

Complete the number sequence

Use the eraser to reveal the next number in the sequence.

1, 3, 5, 7,

Before

Complete the number sequence

Use the eraser to reveal the next number in the sequence.

1, 3, 5, 7, 9

After

Figure: (4)

Screen Shade reveal

The third way a teacher can reveal information is with the Screen Shade tool. He/She should:

- 1.Type his\her question and answer
- 2.Press the **Screen Shade** button on the Notebook software toolbar
- 3.Drag the Screen Shade so only the answer to his\her question is covered
- 4.When he\she is ready, drag the Screen Shade so it no longer covers the answer. This action is similar to using paper to cover answers that would be displayed through an overhead projector.

NOTE: When a teacher opens a Notebook file, the Screen Shade will be covering the same area it was hiding, and he\she will be able to start discussing the content in his\her file from exactly where he\she left off.

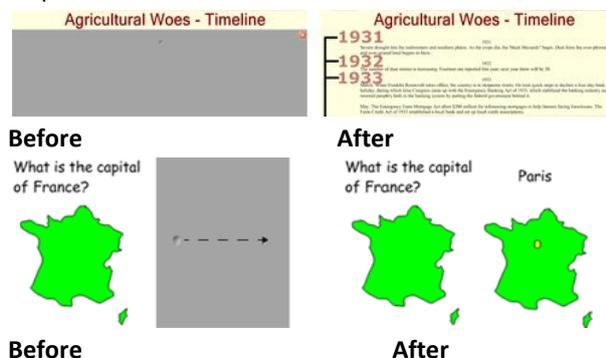
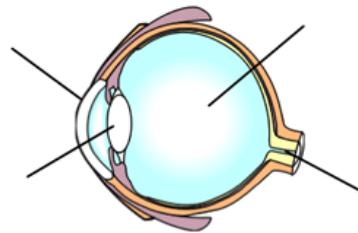


Figure: (5)

Identifying and labelling:

Dragging and dropping Drag and drop activities are an excellent way to determine if a teacher class has achieved recognition about specific learning objectives. To create a drag and drop labelling activity, he\she should add the object he\she want labelled to the work area. The object can come from the Notebook software Gallery, the My Content area or it might be a graphic his\her imported using the Insert menu. He\She should use the object drop-down menu to lock the object that will be labelled in place. This action ensures the object won't be accidentally moved during the lesson activity. Next, he\she should make the labels for his\her diagram and line them up at the bottom of the Notebook page. Then he\she can ask members of the class to drag the labels to the appropriate area of the graphic.



Cornea Lens Vitreous humor Optic nerve

Drag the labels to the appropriate part of the diagram

Figure: (6)

A teacher may want to add a link to an object, such as the eyeball above, to another Notebook software page with an answer key. This page will help anyone you share the file with find the correct answers. Drag and drop activities can also be used for text-based lessons. For example, he\she might drag events to specific dates on a timeline or define a series of words.

Word	Definition
	A naming word
	A doing word
Adverb	This word can modify a verb or an adjective
	This word modifies a noun or a pronoun
Adjective	
Noun	
Verb	

Match the words with their definition

Figure: (7)

Infinite Cloner

The Infinite Cloner allows a teacher to reproduce an object an unlimited number of times, without having to select clone repeatedly from the drop-down menu. The Infinite Cloner also helps keep the teacher's Notebook file's size smaller than if he\she was to copy and paste the same information, making the file easier to share with your colleagues.

To set an object as an Infinite Cloner, a teacher should complete the following steps:

1. Select an object
2. Press on the object drop-down menu
3. Select **Infinite Cloner**
4. Press on the object, then drag to create an identical object

Using the same object for multiple answers: One advantage of the Infinite Cloner feature is the ability to create a drag and drop activity without

diluting the pool of available options each time a question is answered correctly.

Keeping information in context

Another benefit of the Infinite Cloner feature is that it makes it easy to keep information in context. This feature is especially useful for text-based lessons.

How many different words can you make from this word?

shakespeare

- | | |
|----------|----|
| 1. ape | 5. |
| 2. phase | 6. |
| 3. shake | 7. |
| 4. | 8. |

Set each letter of a word as an Infinite Cloner. Drag the letter to a different

area of your page to create anagrams. The original word will remain in place.

You may want to set a timer to make the lesson more challenging. An

interactive timer is available from the Gallery Collections.

Figure: (8)

Using Sound

Notebook software makes it very easy to engage auditory learners by using sound within a lesson activity. It is also a good way to give students insight into a speaker's personality – listening to a historical speech, rather than reading, can be more engaging for students.

Sound as a Reinforcement Tool

One way to use sound is to give immediate feedback to students when they touch specific objects in Notebook software. The user must try recording applause to use for correct answers or the words *try again* for incorrect answers.

Capturing Information

The Screen Capture Toolbar allows a user to capture an image, such as a digital photo from the Internet, to a Notebook page. To access the Screen Capture Toolbar, press the **Capture** button (the camera icon) on the Notebook software toolbar. Always he should remember to respect copyright.

Linking

A teacher can link an object to a website, another Notebook page, a file on his\her computer or a file, such as a video clip or other multimedia element, residing in the Attachments tab.

He must select **Link** from an object's drop-down menu, and choose the type of link he would like to add to his object from the Insert Link dialog box.

Button How it's Used, a Teacher Should:

-Press and drag to outline the rectangular area you want to capture. Release pressure after the area is selected.

-Press in the window you want to capture. Release pressure after the desired window appears as a hatched area.

-Navigate to the screen you want to capture, and press the button to capture the entire screen.

-Press and drag to create a freehand shape around the area you want to capture.

-Release pressure after the area is selected.

Link Type Use This to

A user should link objects in a Notebook software lesson activity to a related Web page. A note stating the author and relevance of linked content gives insight to what his students can expect to see and increases the usefulness of the link for his peers who might be sharing his content. Link to another page within his Notebook file. He\She might use this type of link when presenting a question. For example, he\she could ask a question, then ask a student to select from a set of objects representing potential answers. The object containing the correct answer could link to a reward screen. Objects containing incorrect answers could link to a page that encourages the students to try again. Link to a file stored on your computer that relates to your lesson or presentation. For example, he\she could link to a Microsoft Word or Excel file that contains information that qualifies a statement in his\her Notebook file.

He\She should link to a file his\her has stored in the Attachments tab. Some teachers store video files in the Attachments tab. By linking to these videos directly from an object on the Notebook page, he\she can seamlessly launch the related video without opening the Attachments tab or while presenting a lesson in full-screen mode.

Interactive and Multimedia Content

Video and Macromedia Flash content is easily accessible from the Notebook software gallery. Video content can be used to give students an impression of a historical event or to demonstrate how something moves, such as microscopic cells. Flash can be used when a teacher wants students to interact directly with a learning object and receive instant feedback. When he/she is searching for content related to a specific topic, Flash and video Gallery items are always located under the gallery header Interactive and Multimedia.



Figure: (9)

There are hundreds of Flash and video Gallery items. To browse through the Interactive and Multimedia content available from the Notebook software gallery, type *video* or *Flash* in the Gallery search field, and experiment with the Gallery items to learn how you can apply them to your lessons.

Potential Pitfalls

Multimedia elements are a popular way to integrate content to his lesson activities that appeal to different learning styles. These tools are a good supplement to any lesson, but should be used with some restraint. Filling every page with animations, videos and sound can distract students. There are hundreds of Flash and video Gallery items. To browse through the Interactive and Multimedia content available from the Notebook software gallery, type *video* or *Flash* in the Gallery search field, and experiment with the Gallery items to learn how you can apply them to his/her lessons.

Potential Pitfalls

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appeal to different learning styles. These tools are a good supplement to any lesson, but should be used with some restraint. Filling every page with animations, videos and sound can distract students from the learning objectives and direct their focus to the technology instead of to the content of your lesson.

In teaching foreign languages, the interactive whiteboard can be used to support interaction and conversation between the teacher and students and among students themselves, to promote teachers' organizational skills (Gérard & Widener, 1999), to present linguistic elements, and to support oral skills (Al-Saleem, 2012, p. 130; Gérard & Widener, 1999). The results of the study of Swan, Kratcoski, Schenker, and Hooft (2010) suggested that using the interactive whiteboards in teaching can enhance students' learning and performance in "mathematics and reading/language arts" (p. 141).

Online publishing can be accomplished through online magazines and educational organizations that post students' writing on the Web. Three examples are Midlink Magazine, The Young Writers Club, and International Kids' Space. The World of Reading posts book reviews that are submitted by children.

Internet-Based Communication. Another way to promote student writing is through electronic mail (e-mail), electronic bulletin boards, and e-mail lists. Such Internet-based communication can be with peers, adults, or professional experts from around the world. Students in classrooms across the country can become online penpals (sometimes called e-pals or keypals). Some classrooms enjoy pairing up with older adults who live in retirement homes. Still another use is online communication with adult experts who have agreed to answer students' e-mail questions.

Writing to an authentic reader has a positive effect on students' writing performance and motivation (Reinking & Bridwell-Bowles, 1996). "Simple exchanges of e-mail can get students writing and reading with the same intensity they bring to the most exciting video game," note Meyer and Rose (2000). "Receiving feedback from across the globe conveys to young children the power of

reading and writing and demonstrates their ultimate purpose—to communicate across time and space."

It was hypothesized that:

1. Many EFL\ESL learners lack to the knowledge of using Smart Interactive Notebook to acquire their English writing skills.
2. Smart Board Notebook helps students to elaborate their English writing skills.
3. Some EFL\ESL learners' cognitive and comprehensive abilities are different and consequently lead to some difficulties and problems.
4. Some EFL\ESL learners can't understand the relationship between understanding English writing skills and the use of Smart Board Notebook.
5. Those Students are unaware of the importance of using Smart Board Notebook inside and outside classrooms.
6. Because of gender difference, learners have some problems in using English writing skills via Smart Board Notebook.

A study was conducted on some EFL\ESL students to analyse the reasons behind their difficulties in writing in English via Smart Board Notebook. This research paper is based on this study. This study explores how the use of **SBN** as a tool to help to develop the writing skills of EFL and ESL students. It

discusses the role of the SBN in developing English language writing for EFL learners.

Data has been collected through a practical questionnaire. Data collection was made, according to the aims of the study as expressed through the specific research questions and hypotheses. Paragraph drafts, essay drafts, composition drafts, article drafts, and the students' responses to the questions of the practical questionnaire have been discussed.

The following steps were followed:

I- The EFL\ESL learners were divided into groups and have been given the practical questionnaire.

II. Reviewed the literature related to the topic of the research to get full understanding of the impact of using SBN tool in learning English as a Foreign language in different contexts.

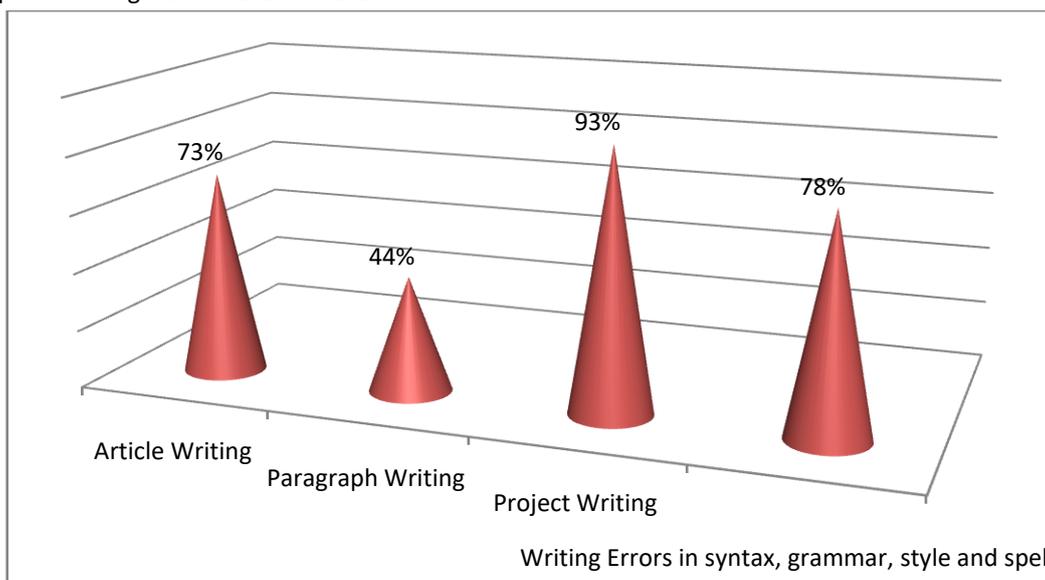
III. Designed tools for the study.

IV. Consulted a number of language teaching and information technology (IT) experts and specialists to verify the validity and reliability of the tools.

V. Applied questionnaire method in collecting.

VI. Analysing the data by using charts.

VII. The learners' errors in each mechanism and technique was marked in every single sheet and in every answer to a question involved in the questionnaire.



In the learners' answers 73% of students answered article questions correctly, 44% students answered paragraph writing questions correctly, 93% students

answered project writing questions correctly and 78% students answered writing errors questions correctly.

Findings Of The Study Relating To The Hypothesis Of This Study

1- Discussion of the Results related to Article Writing via SBN:

Some Libyan university students have no idea of article writing via using SBN tool to develop their English writing skills, has been accepted because there were statistically significant differences among the students

2- Discussion of the Results related to PROJECT Writing via SBN:

Some of those students have no idea of paragraph writing via using SBN tool to develop their English writing skills, has been accepted because there were statistically significant differences among the students.

Some EFL\ESL students have no idea of article writing via using SBN tool to develop their English writing skills, has been accepted because there were statistically significant differences among the students

3-Discussion of the Results related to Writing errors in grammar, syntax, style and spellings via SBN:

Students are unaware of the importance of communication and interaction skills among them by using SBN enable the learner to get feedback about errors from linguistic repertoire available in the SBN easily.

Conclusion

The Smart Board is an interactive whiteboard that uses touch detection for user input (for example scrolling and right mouse-click) in the same way as normal PC input devices. The Smart Board 800 series interactive whiteboard introduced a 'flick and scroll' feature.

The Smart Board interactive whiteboard operates as part of a system that includes the interactive whiteboard, a computer, a projector and whiteboarding software - either Smart Notebook collaborative learning software for education, or Smart Meeting Pro software for business. The components are connected wirelessly or via USB or serial cables. A projector connected to the computer displays the desktop image on the interactive whiteboard. The whiteboard accepts touch input from a finger, pen or other solid object. Smart Board interactive whiteboards are also available as a front-

projection flat-panel display – interactive surfaces that fit over plasma or LCD display panels.

Finally, this study gives an idea about how to write a paragraph, an essay, an article and a composition by using the SBN tool to develop English writing skills.

The results of this study may be relevant to researchers in other language skills as well as other fields of research. Further research need to be carried out to know whether EFL\ESL learners using SBN will be motivated enough to depend on themselves or interact and work together. More studies into the attitudinal aspects of published work would also be useful.

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