

CHAPTER II

LITERATURE REVIEW

This chapter presented the theoretical framework, relevant research study, and conceptual framework. The result would be present below

A. Theoretical Framework

1. Definition of Implementation

This research will observe the implementation of Interactive Whiteboard (IWB). According to Ahrens (2015) implementation is an action that must occur after the initial thought in order for something to occur. Implementation is the carrying out of planned, intentional activities that aim to turn evidence and ideas into policies and practices that work for people in the real world. It is about putting a plan into action; the ‘how’ as well as the ‘what’.

Implementation science is the scientific or formal study of how interventions are incorporated into service settings. It seeks to identify specific activities, contexts and other factors that increase the likelihood of successful implementation and lead to improved outcomes for people. Implementation science is connected to, and builds on, learning from related disciplines in public services including: Change Management, Project Management, Improvement Science, Quality Improvement, Knowledge Translation and Organisational Development.

Although implementation science is still at an early stage, there has been a growing interest in it over the last decade. There is now an increasing body of research highlighting important factors in successful implementation, and experience of using implementation science to support

the delivery of services, particularly in health, education, social and community settings.

Implementation can help in :

- a. Raising awareness of the different stages of implementation among those planning, commissioning and leading change
- b. Helping people think about the important factors contributing to successful implementation
- c. Understanding context this includes consideration of a particular community or organisational setting, or the broader political, economic or social context.
- d. Implementation can refer to the delivery of a programme or service in a specific community setting, or to government policy involving a series of activities undertaken by government and its agencies to achieve the goals and objectives articulated in policy statements or legislation.

Research and practice have informed a growing body of knowledge about what works in terms of interventions in human and social services. However, outcomes for people using services have not improved in line with the advances in knowledge. This is sometimes called the ‘implementation gap’ – the difference between what we know works in theory and what happens in practice.

Having good data, and an effective policy or intervention is only part of the overall picture of achieving positive change and improving outcomes for people. How well a service or policy is implemented will also influence what it achieves. There are many examples in health, education and social services, all of which help us to understand what helps and hinders implementation.

One example in Ireland is the implementation of legislation in 2004 which aimed to make all workplaces smoke free, including bars and restaurants. In 2013, a Department of Health report

showed 97% compliance with the legislation. Strong leadership, ongoing communications and engagement with trade unions, state agencies and the medical and public health sector helped to make implementation successful. The report also identifies health benefits associated with the ban, including cardiovascular and respiratory health, and prevention of smoking related deaths.

2. Stage of Implementation

Implementation have many stages. Based on National Implementation Research Network (2020) Whether using something new, scaling an established program or practice or supporting an initiative comprised of multiple programs and practices, successful implementation takes intentional planning and time. Implementation is not an event but a process involving multiple decisions and actions. Change at the site, local, community or state level resulting in improved outcomes does not occur all at once. Although implementation can take longer than we hope or anticipate, its process and trajectory can be predicted and shaped using a stage-based approach. Implementation happens in four discernible stages:

a. Exploration

Exploration involves an assessment of assets and needs of the focus population, fit of the program or practice with those needs and assets and feasibility of implementation.

b. Installation

Installation involves building the infrastructure necessary to implement the program or practice, which includes building practitioner and organizational capacity.

c. Initial implementation

Initial implementation includes the initial efforts of staff to use the program or practice, with attention to using data for continuous improvement.

d. Full implementation

Full implementation occurs as staff use the program or practice successfully, and population-level outcomes are achieved.

It is important to note that implementation stages do not always end as the next begins; stages often overlap, and activities can cross stages. There also may be instances in which an organization is in different stages at the same time for different programs/practices. In addition, activities necessary for sustainability are embedded within each stage. Identifying the current stage of implementation for a program, practice or initiative can help staff and stakeholders to better understand progress, ensure the use of appropriate implementation strategies for that stage, plan for data collection and usage, and communicate current implementation efforts. The Implementation Stages Planning Tool supports identification of the current stage and implementation planning and improvement by providing

- a. a flow chart to determine the current stage of implementation,
- b. a list of appropriate stage-based activities, and
- c. an outline of expected stage-based outcomes.

3. Interactive Whiteboard

Based on Wood & Ashfield (2008) Interactive Whiteboard (IWB) generally consists of a computer, a data projector, and an electronic screen. Higgins, Beauchamp, & Miller (2007) IWB was designed for office settings, and has not been used in schools until recently. In educational settings, it was first used in higher education, and primary schools began to consider its use in the late 1990s. According to Cambridge Dictionary Interactive Whiteboard (IWB) is a large electronic screen linked to a computer, that is used in a classroom to show information and

that can be written on by touching it with a finger, special pen, etc. Most of the school are now well equipped with the Interactive Whiteboard (IWB). The system linking computer, projector and board, offers considerable advantages in the presentation of learning materials the development of concepts and leads to enhanced motivation of pupils. Glover and Miller (2001, a, b, c, 2002, 2003) have reported on the use being made of the technology in both primary and secondary schools in England and have shown that it promotes pupil interest, more sustained concentration, and more effective learning where teachers are aware of the ways in which IWBs can be used to support a variety of learning styles. Teachers in both initial and continuing teacher training have been made aware of the technology and its potential for enhanced teaching effectiveness in a range of subjects and there has been specific work in assessing pedagogic use in some subject areas.

1. Students and Interactive Whiteboard (IWB)

At Sumrall Elementary School, in Mississippi, many teachers are thrilled with the interactive whiteboard (IWB). “It is very motivating,” said one 4th-grade math teacher, who mentioned the benefits of teaching with technology because today’s students are so accustomed to technology in their daily lives. Many teachers at this school use the Promethean board, a type of interactive whiteboard, which is becoming very popular in schools across the United States. The vice principal at Sumrall commented that one parent was so impressed with the whiteboard that he offered to buy one for the school so his child could use it. The use of the whiteboard does in fact seem to engage students for a variety of reasons. One teacher at Sumrall Elementary mentioned that she has tried teaching both with and without it and noticed a positive effect on students when she used it. Teaching with the whiteboard allows teachers to deliver instruction in an alternative format, decreasing monotony for both teachers and students.

The interactive whiteboard also allows teachers to connect to the Internet and project images on virtually any topic, a great benefit to visual learners. Students learn how to use new technology skills or sharpen their existing skills through this new hardware. They seem eager to come up to the front of the class to use the whiteboard. Some teachers encourage students to use a device similar to a mouse that allows them to record their answers without leaving their seats. This allows all students to participate simultaneously and gives teachers immediate feedback about which questions are difficult and which are easy for the class, as well as data about who is answering correctly and incorrectly. In a reading and English 5th-grade class at Sumrall Elementary, a teacher uses the whiteboard to introduce new vocabulary words and show images on the IWB that match the new words. Later, she flips to a different page on the whiteboard to guide students to do some work involving synonyms and antonyms using the new words. This teacher is very happy with the way the whiteboard engages the class, but notes that it can be misused and needs to be combined with other effective teaching skills. The views that teachers and administrators at Sumrall Elementary have about the whiteboard are similar to what researchers are finding about this technological tool. The purpose of this article is to discuss the benefits and limitations of the interactive whiteboard as a means to promote learning.

Attitude is considered as one of the factors to succeed student's learning process. Shams (2008) stated that there are some factors which can influence student's learning namely motivation, personalities, aptitude, and ages, attitudes, learning achievement, intelligence and anxiety. Shams also mentioned that those factors could develop students learning quality to be move qualified, Attitude has an important role to make the students encourages to learn English. Eshginrjad (2016) stated that attitude is considered as a viral role to influence the performance of language. So, attitude has an important role in learning process.

2. Teaching English Young Learner

Teaching is a process when teacher transfer knowledge to the students. According to Gage (1963), Teaching is a form interpersonal influence aimed at changing the behaviour potential another person. Teaching young learner is different with teaching teenager nor adult. Children must be allowed to play an active part in the process of mastering skills and extending their knowledge of the world around them.

To ensure that they play an active part in the learning process, teachers need to arouse and maintain interest by providing an environment that will enable them to talk and act as if they were living a real experience. Essentially, young learners are not much different than adults when it comes to effective language learning. All ESL students learn language better through communicative and task-oriented lessons, but teachers need to adapt to the different characteristics of young learners accordingly. Young learners present a special set of challenges and opportunities in the English language classroom. Younger students tend to have shorter attention spans and can lose focus more easily than older students. They may require more frequent breaks or opportunities to move around and also benefit from structure and routine. Often, younger students learn best by physically doing things and interacting with peers. As with students of all ages, young learners need to feel connected to what is being taught and involved in their own learning process. Additionally, young learners can present a special set of behavioral challenges if a classroom is not managed well.

The thought of addressing all of these needs may seem daunting, but with some careful consideration and planning, working with young learners can be a very rewarding experience for both teachers and students. The English language classroom for young learners provides

opportunities to incorporate hands-on activities, music, movement, and visuals. Younger students learn best when content is presented in a consistent manner and repeated frequently, which can actually make preparation a bit easier for teachers.

3. EA Speaking Active Baturaja

EA Speaking Active Baturaja is one of the course in Baturaja that support learning process by using Interactive Whiteboard (IWB) in the class. EA Speaking Active Baturaja is in Dr. M. Hatta street, Ruko 1 and 2 next to RSUD Dr. Ibnu Sutowo Baturaja. EA Speaking Active Baturaja is not only teach young learner, there are also teenager and also adult class. Start from kindergarten student, elementary student, junior high school student, until senior high school. The use of Interactive Whiteboard (IWB) is allow for all level that available in EA Speaking Active Baturaja.

B. Previous Related Study

These are some studies that related to study. The first study conducted by Shi (2021) on his research *Effects of interactive whiteboard-based instruction on students' cognitive learning outcomes: A meta-analysis*. This study identified empirical publications that examine students' cognitive learning outcomes and applied a meta-analysis to determine the overall effectiveness of IWB-based instructions. A systematic database search and literature review identified 23 high-quality, peer-reviewed journal articles that met the inclusion criteria. The meta-analysis was conducted using Review Manager 5.3 software; the calculated effect size showed that the IWB-based instruction can positively influence students' cognitive learning outcomes, compared to traditional lecture-based lectures. A moderator variable analysis suggests that the pedagogical approach and the year of publication significantly moderate the effectiveness of IWB-based

instruction. These results indicate that the IWB-based instruction has matured overtime after several years of application in educational environments, helping students improve their cognitive learning across interdisciplinary research reports. Furthermore, the IWB-based instruction was most effective when instructors applied an independent learning approach, suggesting that IWB-based instruction can be useful for personalized student learning.

The second study conducted by Aflalo (2018) on his research *The interactive whiteboard in primary school science and interaction*. The study aimed to examine the interactive attributes in lessons with an IWB and the students' attitudes. Methodical structured observations of 26 science lessons were conducted in elementary schools in Israel. The results showed that the teachers frequently used the diverse IWB tools, but most of the learning took place in frontal, whole class learning. Most of the interaction was under the teacher's control and the dialogic interaction was limited. The attitudes of 62 pupils showed that despite already studying with an IWB for five years, their enthusiasm did not wane. They even claimed, in contrast to the observation findings, that the IWB contributed to active learning and interaction in the class. The research findings raise fundamental questions regarding the place of the IWB in promoting interaction in the class and on the necessity to promote the teacher's pedagogic concept in order to increase class interaction.

The third study was conducted by Bourbour (2020). On her research *Using digital technology in early education teaching: Learning from teachers' teaching practice with Interactive Whiteboard*. The results of the study confirm that teachers' physical proximity to the IWB's large display enhances teachers' opportunities to provide just in time feedback. Providing feedback to children using the IWB in terms of questioning to elicit a children's thoughts (Initiation-Response-Feedback pattern) has been discussed in the previous literature (Mercer, Hennessy, and Warwick 2010). My study's findings introduce two more patterns of feedback mediated by the IWB. The

interactive nature of the IWB makes it possible to provide direct and automated feedback when teachers or children fulfil an activity or a specified object is handled on the IWB. The IWBs automated and direct feedback is articulated in a variety of ways, including positive feedback and negative feedback. The IWB's big screen can further enhance children's opportunities to provide feedback to each other's work in the process of problem solving. The findings of this study draw attention to how preschool teachers' teaching can be affected by a specific digital technology now commonly used in early education. Mapping the consequences of using these technologies in terms of possible opportunities and constraints can contribute to ongoing discussions about how digital technologies can be integrated into preschools' educational practices in alignment with the current Swedish preschool curriculum. The findings are also important since the results of this study can contribute to the strengthening of teachers' digital competencies. What is significant from a Swedish perspective is that digital technologies are becoming an important part of preschools' educational practices. The integration of these digital technologies, as this research shows, serves to transform preschool teachers' existing teaching practices rather than entirely replacing them.

The focus of data analysis by Bourbour (2020) :



Source : Bourbour (2020)

The brief outline of the finding by Bourbour (2020)

Mediational aspect of IWB	IWB-mediated action	What is privileged in IWB-mediated teaching action?
IWB's big screen/ Multimodality	Visualising and highlighting the teaching content	Engaging children in the educational activity
Big screen and interactivity	Just in time and just in the point feedback	Making visible children's problem-solving processes
Multimodality	Combining and manipulating of images, animations and texts	Integrating real-world activities into virtual activities
Interactivity/ Multimodality	Creating and moderating discussion among children	Whole-group discussion
Indefinite storage and quick retrieval of educational resources	Storing and retrieving reusable educational resources	Instant access and organizing educational resources
Pre-prepared teaching materials and fully-structured applications	Be controller or objective observer rather than a facilitator	Less discussion in teaching activities
Inflexible placing of IWB	Conducting teaching activities within a fixed room	Inflexible learning environments

Source : Bourbour (2020)

The researcher took this research as the based theory in this study phenomenon. By using the focusing data, and the brief outline by bourbour the researcher guided to analyzing the data of the implementing interactive whiteboard.

C. Conceptual Framework

Based on the description above. This is conceptual framework is applied for the research with the title, the implementation of interactive whiteboard (IWB) in teaching English for young learner at EA Speaking Active Baturaja.

