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Teaching Circles Using Smart Board

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Abstract

This concept paper aims to (1) highlight teaching circles using smart board, (2) review the strengths of teaching using the smart board, and (3) highlight some previous studies in this field. The authors explain the importance of the study of circles, its close connection with other branches of mathematics, and the problems that students encounter when studying the topics of circle. The authors provide insights on teaching using the traditional method and teaching using the smart board. Based on the literature, the authors divided the essential paper into four sections: Teaching Using Traditional Method, Teaching Circles Using Traditional Method, Teaching Using Smart Board, and finally Teaching Circles Using Smart Board. Based on the literature, some strengths of Teaching Circles Using Smart Board are presented.It is emphasized that teachers should be aware of the strengths of Teaching Circles Using Smart Board. Research in this field must be expanded to find effective educational strategies that contribute to increasing the use of the smart board in other mathematical topics and in other subjects such as physics and chemistry.

Keywords: Smart Board, Circles, Traditional Method.

Introduction

There are many circular shapes that we see every day. At the beginning of the day, the sun rises from the east in the form of a circle. What our children see is a circle, and after he sits down to eat breakfast, the plate in front of him and the slice of cake take the shape of a circle. He also watches his toys contain circular shapes. When a student takes a mathematics test in his school years, most of the tests contain questions about the circle. Mathematics curricula in all countries of the world contain the topic of circles, and circle is always of interest to mathematics teachers (Garcia et al., 2019). It is no wonder that international tests always contain questions about the (Devkota, 2023). Examples of such tests are Trends in International Mathematics and Science Study (TIMSS), and Emirates National Mathematics Measurement Test (EMSAT) (EMSAT - Emirates Standardized Test).

The study of circles in school education is of great importance for several reasons. Circles are found in geometry, science, and technology. When the student is proficient during

the skills related to the circle, this is considered a basis for them to have advanced applications in reality. The student who understands basic concepts in the circle such as angles, radii and arcs can establish a more complex building in geometry, as circles are one of the most important parts in geometry (Yao, 2021).

When the student finds ease in dealing with straight lines and central and circumferential angles, this makes trigonometry easier when studying it in advanced stages, as the circles play major roles when studying trigonometry. Not only that, but the student's understanding of circles and the visualization of circular shapes and the connection of radii to the formation of central angles and chords to the formation of circumferential angles contributes to enhancing the skills of spatial visualization, which is important when studying mathematical geometry (Birgin& Topuzn, 2021).

Circles is found in all fields. Architects, when they plan the building, often need the science of circles to design arches, domes, and circular-shaped structures. We also find that circles are related to physics. For example, to study rotational motion, angular momentum, and orbital mechanics, we find that the concepts of angular velocity and the force of attraction depend on the principles of motion Circular. Also, in the field of art, drawing, theatre, as well as in astronomy, we must have knowledge of the science of rotation and comprehend the concepts related to the circle. (Pacholczyk, 1996).

Based on many considerations, some of which we previously referred to, the study of circle occupied an important place in school education, and studies were conducted on the most successful ways to teach circles, as the study of circles in the school paves the way for the acquisition of mathematical concepts and their application in reality and provides learners with a deeper understanding of the professional fields related to circles (Dwijayani, 2019)

School students face several challenges when starting to study circle. For example, that the student's understanding of the two-dimensional shape, such as circle, is an abstract matter that is not easy to visualize, especially if the student faces problems in visualizing spatial relationships.

The names of the parts of circle and their relationship to each other: diameter, radius, chord, arc, and sector. It is considered a problem for some students to be able to relate the name to the concept it expresses. Students also have problems relating equations of a circle and finding the unknown based on the information provided, especially if the student struggles a bit with algebra (Aksu,2019).

Students also encounter a lack of understanding of circle theories, such as theories about angles within a circle or theories of tangents, which require logical thinking and a high capacity for deduction. Sometimes the student cannot accurately draw circles, arcs, and circular sectors. He needs training in the skill of using tools to draw circles. (Bhagat & Chang, 2015).

It is sometimes difficult for students to realize the importance of the subjects they study and their relevance to the reality in which they live. There is difficulty when the academic situation requires that the student merge previous knowledge of algebra, trigonometry, or geometry with the science of circles, as students sometimes lack a solid foundation in these subjects (Maass et al., 2019).

Teachers make strenuous efforts to face these challenges. Teachers diversify their teaching strategies and look for the best teaching methods to meet these challenges, including the use of the smart board because of its role in supporting cooperative learning and providing continuous explanations for students to contribute to facing challenges and overcoming difficulties (Halili, 2019).

Teaching Using Traditional Method

Teaching in the traditional way is one of the oldest teaching methods, and it usually depends entirely on the teacher, where the teacher is the only source of information and the task of the student is to listen and take notes, and the student has nothing but to be passive without any role to play in the process of teaching and learning (Szymkowiak et al., 2021). The traditional teaching method, according to the teachers, is not recommended for all subjects, and is also not effective for all students and classes, and does not guarantee that learning will occur and its impact will be transmitted (Molloy et al., 2020).

The teacher's experience and ability to present information appears in the traditional teaching method, where the main component is the teacher and the main source of information. It does not take much time to complete the syllabus, as the teacher plans and implements the lesson according to the plan he makes in advance. (Ali, 2019).

Samuelsson (2010) define the traditional method of teaching as the method in which the teacher presents a mathematical concept or relationship to students, explains to students the procedures required to find the solution and solves the problem in front of the students on the traditional board, and then asks the students to apply these procedures to similar mathematical problems.

In the traditional way, the teacher applies the instructions stipulated in the teacher's book without creativity and the teacher controls the lesson time either by explaining or giving instructions, while the students are not active and participate only as listeners to the teacher who plays the main role (Giorgdze & Dgebuadze, 2017).

In the traditional method of teaching, the teacher explains the topic of the lesson in a simplified way to the students, using only the senses of sight and hearing, where he watches what the teacher writes on the traditional board and what comments or instructions he utters. The student takes notes and begins to apply what he hears from the only source of information, which is the teacher (Broughton, Brumpit, Pincas, & Wilde, 2002).

Many teachers still wish to apply traditional methods of teaching due to the lack of keeping pace with developments in modern teaching methods that rely on the use of technology in teaching (Broughton, Brumpit, Pincas, Wilde, 2002). The traditional method of teaching is based on the teacher's instructions, which all students must apply at the same time and with the same efficiency.

The importance of mathematics topics has given rise to discussions about how students learn mathematics and what are the most appropriate ways to teach it for an in-depth understanding of both concepts and procedures (eg, Hiebert & Lefevre, 1992; Gonzalez (1984). This is because the way in which mathematics is taught is a contributing factor to students' learning opportunities and is of paramount importance in students' attitudes about mathematics teaching.

In traditional teaching methods, the primary focus of teachers is to help learners follow several rules and procedures that teachers specify to solve questions correctly with a simplified explanation of how and why this method was chosen in the solution or the causation in the order of steps or the mechanism of choosing the formula (Stipek et al., 2001) This traditional teaching approach has resulted in most students having difficulties in grasping mathematical concepts. In teaching circle for example, Falloon (2019) noted that in most cases, teachers do not properly introduce the concept of circle theorems in order for students to understand the concept before quickly moving on to the properties themselves.

Some teachers, still teach the circle through the traditional method. Ames (1990) claim that the traditional method of learning is too dependent on the teacher's instructions

and does not provide enough opportunities for students to participate. The traditional teaching method is often seen as a set of instructions that begin by providing definitions, terms, symbols, and procedures without specifying the meaning of those concepts involved. In a procedural definition given by Schmittau (2004). for traditional education, that didactic approach or procedural teaching in which procedures, skills, and algorithms are "developed" before concepts are developed.

Teaching Circles Using Traditional Method

Qizi and Muydinjonovna (2020) indicates that mathematics is a complex and challenging subject where most of the students tend to consider the subject as boring, as this leads to a lack of interest in the topics discussed in the classroom. Mathematics teachers should be interested in teaching circles in innovative ways.

An effective teacher creates an environment in which the student is prepared and motivated to learn (Wiseman & Hunt, 2013). This is what the teaching circle requires. Understanding mathematics means the ability to solve problems from life in a mathematical way, and Battey (2016) confirms that mathematics is understood when it is taught using mathematical proofs as well as when the student deals with the concrete away from the abstract. An effective teacher can enable the student to obtain concrete evidence of his learning. Through the ability of the student to prove the result, teaching in the traditional way is one of the easiest methods of teaching, as concepts are taught by giving a set of rules to students to follow without students knowing how these concepts appear and the mechanism of their application (Akyeampong, Lussier, Pryor, Westbrook, 2013). But the results, they are often not timely, and the goals of teaching are not usually achieved, and more time and effort are required.

According to Wood and Gentile (2003), teachers see traditional teaching methods as no longer appropriate. Traditional teaching methods are not active but passive. Students are only secondary spectators. Also, the traditional teaching method does not promote the spirit of cooperation among students and does not encourage critical thinking and problem solving. Furthermore, many education theorists have indicated in many books and studies that the primary goal of education is to help students solve problems (Krulik & Rudnick, 1995).

According to Guid (2018) that in addition to promoting higher-level attitudes, interests, and motivations toward mathematics, students should recognize on themselves skills in building their own knowledge to enhance understanding of mathematical concepts rather than providing them with a set of rules without understanding. In order for students to think mathematically, students must be exposed to different problem-solving strategies through the use of appropriate teaching methods.

When we teach our students in the traditional teacher-centered way, these students will not be able to achieve the learning outcomes we desire (Asiri et al., 2012). Traditional teaching methods have lost their influence, as we are talking today about the growth of education and the efforts exerted to reflect this growth and development on academic achievement, and because the diverse and distinct teaching and learning methods through which educational technology is integrated is important and must be applied in the classroom to achieve levels of growth and development in student understanding for the mathematical subjects they study.

Therefore, one of the most important responsibilities of the teacher and the responsibility of the educational system is to employ a variety of tools for students to attract

their interest and motivate them, and in this conceptual paper the researchers will shed light on teaching sessions using the smart board.

Teaching Using Smart Board

In the traditional method of teaching, there are three main aspects that form the basis of the educational process, and they are respectively the teacher, the textbook, and the traditional board, as the learning environment is poor in technology and does not consider the student as the focus of the educational process (Yen & Lee, 2011).

Advances in science and technology are advancing very rapidly and encompassing all aspects of life. Technology has reached the classroom, as well as the home, the workplace, the place where life is. The development included teaching and learning methods and the use of curricula, methods, and tools. The school did not remain the only place for teaching and learning. The teacher and the textbook did not remain the only source of information. With the help of technological means, the student can learn at anytime and anywhere. The development is comprehensive and educational institutions have benefited greatly from it. The development also included the classroom environment, where the shape of the blackboard and its functions changed as well as books and the way they were presented and printed. It is available on paper and electronic copies to match the development that has taken place(Brooks,2011).

To inspire students to learn mathematics, classroom instruction should be engaging and stimulating, We can design a teaching environment by introducing technology because it is able to create an attractive environment , The National Council of Teachers of Mathematics (NCTM, 2000) in the document “Principles and Standards for School Mathematics” hailed technology as one of the main principles for enhancing the quality of mathematics, making teachers confronted with the promotion of learning opportunities using technology, using the technological tools available to serve the educational situation or creating mathematical tasks that take advantage of the technology can do it efficiently and well graphing, visualization, computing.” (NCTM 2000, p. 10). And also of the paramount importance of keeping pace with the available interventions and innovations regarding technology to meet its relevance for the present and the future (Hatfield & Bitter, 1994).

Wolk (2011) indicates that current educational systems that place the student at the center of the educational process are praised and recognized as successful educational systems. These educational systems consider the relationship between students' perception of the learning environment and their learning patterns and outcomes as fundamental to education. By understanding the perceptions students build of themselves and the learning context, it becomes possible to explain variation in academic achievement and to work on the learning environment to make it one that encourages the best academic achievement.

Teachers want to develop their students' thinking skills and increase their creativity through the use of technology applications in teaching, as the researcher believes that using the smart board in teaching is the best solution for that , Prahani et al (2020) claimed that the use of technology applications in teaching increases students' higher order thinking skills.

Roberts (2012) says that teaching and learning using technology has many advantages including providing greater learning opportunities for students as well as enhancing student participation (White, 2012) and encouraging learning by discovery (Bennet, 1999). In teaching and learning mathematics, using technology in the classroom will help students imagine and make observations (Dugan, 2010). Several technical tools are available in the classroom today, such as smart boards, computers, and calculators (Qizi & Muydinjonovna, 2020).

Technology applications contribute to education, including smart boards, by making students active and partners in their learning, having an impact on developing their strategies and understanding their surroundings and the topics covered, where students discover mathematical connections and basic skills. An effective teacher often transforms a struggling students into a leader in the class by encouraging them to use technology applications (Peters, 2017).

The smart board has invaded the classroom and has replaced the traditional board in many schools with the smart board with the aim of increasing classroom activities and contributing to increased interaction within the classroom (Mihai, 2017). The use of smart board in classroom increases students' participation in classroom and stimulates and enhances learners' passion (Al Jawki & Thursday, 2018). The enthusiasm and motivation of the learners is not sufficient in itself. Learners need to integrate the smart board with appropriate interactive teaching methods to increase student achievement and improve their results (Mihai, 2017). Mihai (2017) also indicated that teachers believe that the use of the smart board in the classroom can contribute to the understanding, retention, and retrieval of information when students need it smoothly and easily.

Time is the most valuable thing in human life in general, and in the classroom, time is also very important. Teachers always seek to search for any technology that is able to contribute to achieving their academic goals in the least possible time, and Alaidi et al (2020) indicates that relying on modern technology in the classroom can save time and effort, pointing out that the use of smart boards saves time and provides an opportunity for discussion between the student and the professor in the classroom.

The smart board in the classroom reduces teacher fatigue and makes the teacher teach students more effectively. Through this explanation, we can say that the use of technology applications in general and the smart board in particular gives the student an incentive to continue individual learning and gives his efforts great value (Peters, 2017). Although there is almost a consensus on the benefit of using technology applications in education and in the classroom, there are still some obstacles to the use of technology in the classroom. A large number of teachers still do not like the use of technology in the classroom (Ertmer et al., 2001).

Miranda and Russell (2012) indicate that there are many factors that limit the use of technology in the classroom, including personal factors, environmental factors, the need to train teachers on the mechanism of applying technology in the classroom, as well as the lack of desire to do so. Some teachers switch to technology and not be able to do so as well. Some teachers stated that classroom crowding limits the transition to technology in the classroom as well, and some teachers claim that classrooms are ill-equipped and lack components that contribute to the use of technology in the classroom. The use of technology applications in education is one of the duties of the teacher due to the great role it plays in enabling students to acquire the skills of the twenty-first century. Some teachers actually do (Hofstein & Lunetta , 2004).

Qizi and Muydinjonovna (2020)indicated that the fear that technology may replace teachers in the school system is the most important reason why teachers do not adopt the use of technology in the classroom, and the lack of training on the use of technology and its integration into the teaching process is the reason for teachers' lack of interest in using technology. Babaeer (2014) stated that by understanding the advantages of using technology tools in the classroom and applying them in the best way, this will make technology an indispensable tool in the classroom.

Smart board is almost like a regular board, but it has a touch recognition function. It is a large screen surface that can be either a smart board integrated into a touch screen computer, and it can contain many components. The smart board is used to increase interaction in the classroom. The smart board can be used to make learning active and problem oriented (Abdullah, et al 2020).

In the smart board, you find everything you need from the whiteboard and add to it excitement with a touch screen to provide you with ease and vitality for the teacher's lessons. A smart board is a whiteboard that teachers use in their classrooms to display and communicate content, videos, interactive lessons, presentations, and other digital media. Teachers can create interactive lessons, integrate video and other websites into the lesson, and the teacher can correct and edit texts directly on the screen. Hoslar and Brahier (2008) indicated that students can also write on the board with their fingers without the need for specialized pens, and the teacher usually turns to them to solve problems and show evidence of an answer or something else .

Teaching with the smart board enables multiple use at the same time by many students and saves student work for the teacher to review at another time after lesson time and help students solve problems (Friedman, 2005). The smart board is easy to use and generates motivation The primary focus of teaching with the Smart Board was to differentiate the level between students in the class, as well as the speed with which the student could understand the mathematics exercises in class, during teaching time, to work on their mathematics tasks in small groups (same level).

When teaching with the smart board, students can practice in small, homogeneous groups in the class, during teaching time, to work on the mathematics tasks assigned to them by their teacher. If they complete the mathematics task before the rest of the group, the student can participate in another group in the class to work on another, more difficult task. Of course, the use of technology in education increases student participation in the classroom (Bond & Bedenlier, 2019).

And the method of teaching using the smart board allows students to explain to each other and share the teacher’s role in communicating information to other students as well. High-performing students can often dispense with the teacher’s explanation (Bond & Bedenlier, 2019). Smart board makes students more enthusiastic and energetic, as student finds himself a partner in his learning and a contributor in giving a helping hand to his colleagues.

The interaction of the student with his classmates in the presence of the smart board gives the teacher more time that he may devote to groups of students with low achievement, especially with the presence of large numbers of students in one class (at least 30 students per class). Teaching with the smart board makes education student-centered (Sandybayev, 2020).

Hoslar and Brahier (2008) hypothesized that students enjoy learning with the smart board. In the past, the board was a limited tool limited to how the teacher used it to write. Now that whiteboards are smart and can be written on with a finger or a specialized stylus. This now allows smart boards to discuss topics in great detail using various media forms such as photos, videos, and audios. Smart boards now cost more compared to regular whiteboards, but their higher cost is offset by the benefits they provide to students and the way they provide a rich learning environment for students that would never be achieved with regular whiteboards.

Smart board contributes to facilitating interactive learning and makes the student a partner in learning, in addition to the advantages that we provide about using smart board in teaching circle. To simplify the lessons and make them easier to understand, visually appealing representations of circles are shown on the smart board. When displaying circles using different fonts, sizes, and colors with the ability to control them on the big screen, identifying the constituent parts of the circles and naming the parts of circle, linking each part to its function makes the topic interesting (Hoslar & Brahier,2008)

Teachers could link smart board in their classrooms with dynamic programs such as GeoGebra and Desmos Graphing, which gives teachers and students, if integrated with smart board, the creation of circles, adjusting their colors and sizes, and showing transitions when changing the equation of circle, and students can explore the concepts of circle in the case of direct interaction with the smart board, According to Hiebert and Stigler (2023) students learn mathematics as a result of solving problems.

Teachers may need to conduct interactive demonstrations to highlight the properties of circle. Using smart board, teachers can relate the circumference and area of circle to the change in radius and investigate the relationship between the radius and tangent to the circle by dynamically measuring the angle between them by the students. The results of a study by Cabus et al (2017) showed that level differentiation, which was made possible due to the effective use of the smart board, significantly increased proficiency in mathematics overall.

One of the features that teachers like most when using smart boards is the incorporation of multimedia to enhance students' understanding of concepts related to circles. Videos, animations, and images contribute to producing content that contributes to the student's understanding of the concept of a circle, the parts of a circle, and their associated concepts. Smart boards provide a platform to showcase the creativity of teachers and students as well. By interacting with smart board, the student can make tactile measurements through digital tools that are easy to obtain using the smart board, including a ruler for measuring length and a protractor for measuring central and circumferential angles. This approach promotes active learning and enriches the lesson (Cevikbas & Kaiser, 2020).

Some teachers, when planning cooperative education, divide students into small groups and assign them specific tasks, such as creating circles with known radii. drawing circumferential angles or defining a tangent at a point on the perimeter. Here, students benefit from the features of the smart board by presenting their work to the class, engaging in discussions between students in groups, and sharing. In placing comments, correcting incorrect points, and using annotation tools to express their views on a specific part. Cevikbas, and Kaiser (2020) indicated that the smart board is effective in creating different shapes and graphics in geometry.

There are many features of smart boards, one of which is providing immediate feedback, where the teacher can create an interactive survey during the presentation of the lesson to check the students' understanding of the concepts they are studying and make sure that they do not have a conceptual error. For class students or provide support for a specific group of students if the need arises (Tunaboylu & Demir, 2017).

One of the things that attract a person to spend a lot of time on electronic games in particular and games in general is stimulation and spreading the spirit of challenge. The teacher may use the characteristics of smart board and present interactive activities that ignite competition among students in solving hypothetical problems related to circle or solving puzzles around the concepts of circle or conducting interactive tests where the smart board contributes to making learning fun.

The authors pointed out that the teachers praised the interactive features and capabilities of the smart board, as the teachers were able to design attractive lessons through which the students were able to achieve the goals with a high achievement rate. Smart board gives teachers the ability to transform the concepts taught by the student in circle from the abstract to the tangible. It also contributes to the creation of immediate notes that enhance the active participation of students and enable them to absorb basic ideas and skills and retain the concepts they have studied to benefit from them in other class and new topics (Mun & Abdullah, 2016).

Teaching Circles Using Smart Board

It is difficult for students to learn and understand mathematics and topics such as the circle and its parts, angles, and their measurements without the use of classic teaching tools such as the blackboard or other teaching materials. It is difficult for teachers to explain mathematics lessons without making use of these tools. In the past years, there was a great development that covered all aspects of life, so these tools were developed. In the past, teachers used the blackboard and chalk to teach students, then the whiteboard and colored pencils were used. Finally, for now, teachers are using smart boards in the classroom. According to Fullan (1991), “Educational change depends on what teachers do and think – it is as simple and as complex as that.” (p . 117).

It has been reported (NCTM, 1999) that many students experience difficulties with learning cycle and its theories. Therefore, it was necessary to find a non-traditional teaching method to teach the circle to students in order to form a generation of students capable of solving problems, collaborative work, and applying critical and creative thinking. The method of teaching using the smart board meets these needs of the students, as indicated by many studies (Schmid, 2008).

There are many benefits of smart boards in the classroom, as we indicated during this research. It provides a multi-learning environment, helps to meet individual students' needs, increases students' motivation to achieve and attracts their attention, ensures knowledge retention, simplifies and embodies abstract topics in mathematics, saves time and effort The student and the teacher are given the most time for learning (Mun & Abdullah, 2016). Simplifying complex topics is also one of the benefits of using the smart board through the available audio-visual materials that make the student interested and positively involved in the classroom, which increases his academic achievement (Geer & Barnes, 2007).

Students are adept at using technology. Most students have advanced levels of technology use in or out of the classroom (Hicks, 2011). Students are more efficient in using technology than their teachers, as they have grown up in an environment surrounded by the means of technology. Some studies have shown that technology will be present and essential in 21st century learning and that it fits the interests of students. Technology has also shown a positive impact on student learning when it is combined in beneficial ways (Hicks, 2011).

Abdullah at al (2020) claimed that the smart board has become one of the interactive technology tools widely used in schools to facilitate teaching and learning practices. liberation from traditional methods, and the transition to interactive methods that suit the needs of students in the 21st century. However, it is the teachers who guarantee the success of integrating technology into education (Singh & Chan, 2014). Whatever the classroom environment and the presence of technological means in it, the main factor for success and integration falls on the shoulders of teachers (Singh & Chan, 2014). Teachers need a set of the

skills to be able to play the role assigned to them in integrating the means of technology in the learning and teaching process.

Bıçak, (2019) in his study reached the following results, where he claimed that the use of smart boards in teaching and learning improves students' acquisition of information, and there is a positive effect in classroom activities and improves the way of communication between teacher and students, and communication between students themselves. He noted that effective learning is enabled within the classroom. Through the recommendations, he called for holding courses and professional development for teachers to enable them to activate the smart board in the classroom.

The use of the smart board in teaching supports the position of the teacher and makes education more effective and sustainable. The materials and tools through which you learn must have an impact on teaching, learning and understanding the topics you teach. Without neglecting the students' desires and attracting their attention to make the classroom an attractive and colorful environment, when using the smart board in teaching, students can discuss their work among themselves and interact in the classroom. This facilitates the teacher's work and increases students' motivation and production (Mun & Abdullah, 2016). Using the smart board increases students' interest in the subject they are studying (Abdullah at al, 2020).

Learning mathematics is indispensable for any country that wants to rise and join the developed countries (Martin, 2019). No nation can rise and progress without technological progress that is the product of learning mathematics and applications of science. The prestigious position that mathematics occupies has made it the focus of everyone's attention, and every person aspires to learn and master it (Mazana, Suero Montero & Olifage, 2019).

It is essential to understand and master many topics in the context of studying mathematics, and among these topics is the topic of the circle. By using technology, you give students a learning opportunity to enhance their participation and encourage their learning by discovery (Carstens et al.,2019). In learning the circle, it is necessary to understand the relationships between concepts related to the circle and to imagine and relate those relationships together. There is a well-known proverb in our Arab region that says: I hear and I forget, I testify and I remember, I understand and I understand. Here, the smart board contributes to enhancing the understanding of the student, as learning takes place through listening, watching and interacting, which enhances the understanding of the topics. It should be noted here that the United Nations Educational, Scientific and Cultural Organization (UNESCO) has supported the use of technology in education (Means, 2010).

In this conceptual paper, we reviewed the method of teaching using the smart board, which was shown to be more concerned with interaction between students and teachers as well as interaction between students and the classroom environment. On the other hand, in the traditional teaching circle , where the researchers found the teacher is the person who acts as the manager of the learning environment with little or no intervention from the students (Tay & Mensah Wonkyi, 2018).

We have seen that the effect of using the smart board on student achievement in circle can vary depending on many factors, and depends on how it is used and the context in which it is used. The researcher found an increase in interaction and interest from students, as teachers indicated that using the smart board increases student participation. It stimulates interest in the lesson. It also allows students to interact better with educational materials and also works to enhance interaction between students and the teacher. Teachers have indicated that the smart board works to save time and efficiency.

In general, the smart board is an important educational tool that may contribute to improving the learning experience, but its effective impact depends on how it is used and integrated into the teaching and learning process and supports diverse educational needs.

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