The Effectiveness of using EyeRIS to Improve English Communication Skills of Primary Students

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The arrival of technology has opened doors to different opportunities. A number of institutions have integrated technology effectively in their learning environments to improve teamwork as well as to reform education as a whole. The aim of this study was to explore the effectiveness of EyeRIS to improve English Communication skills at the Primary School level at one of the elite private schools in Lahore, Pakistan. The study employed a qualitative structured interview for data collection. A purposive sampling technique was used to select the sample. The sample comprised five primary English language teachers. The findings of the study revealed that EyeRIS has a significant impact on improving the Communicative Skills of primary students. It helps to improve the receptive as well as productive skills of the primary level English language learners. Moreover, it is a powerful engagement and motivational tool in educational institutions. Overall, EyeRIS holds the potential for improving students’ English language learning, academic performance as well as classroom behaviour.

Key Words: Communicative Competence, Instructional Strategies, EyeRIS, Sensor Technology, English Language Teaching

Introduction

Children today are raised in a culture that is dominated by technology. Almost anything they need is accessible to them via the internet. The use of technology has increased tremendously in schools over the last decade. The face of education has changed due to the effective and wide use of technology. The arrival of technology has opened doors to different opportunities (Akyol, 2010; Alqahtani, 2019; Rizwan, Ayub, & Khan, 2018). A number of institutions have integrated technology effectively in their learning environments to improve teamwork as well as to reform education as a whole. Technology in the classroom means the use of tablets, IPads, Smartboards and projectors. Currently, the traditional chalkboard and whiteboard system has been replaced with white screens or smart screens in schools.

Many factors have to be kept in mind while implementing technology in the classrooms; the most important among them is the teacher. The teachers should have pedagogical compatibility, technology proficiency and social awareness for better integration of technology in the classrooms.

EyeRIS is one of the latest additions to the list of advanced technological gadgets which are being used in schools these days. EyeRIS is a multi-touch interactive system. It converts a simple whiteboard into a smartboard. This technology is expensive, and very few schools in Lahore, Pakistan, is using it. Teachers generally take time to get acquainted and accustomed to the software using whiteboards.

This study investigates the effectiveness of using EyeRIS to improve the receptive as well as productive skills of students at the primary level. Productive skills include writing and speaking, while receptive skills include reading and listening. EyeRIS converts a boring classroom into an active digital learning environment. All these skills are extremely important to make students communicatively competent. EyeRIS helps the students to improve other elements such as assistive listening devices, audio-visual capabilities and other skills. EyeRIS is a Multi-touch and Multi-user Interactive Whiteboard system, unlike other Interactive Whiteboards, where only

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or 2 people can interact with data on the board. EyeRIS supports up to 255 simultaneous touchpoints. It is not commonly used in a lot of schools since it is a new technology.

A host of research has been done on sensor technology, which is used in different domains. However, very few studies have been conducted on EyeRIS due to the novelty; therefore, this is something that needs further elaboration, which is hoped to be achieved through this study. To fill this research gap, this study aimed to investigate the effectiveness of using EyeRIS to improve the communication skills of students at the primary level.

This study hopes to make a contribution to providing beneficial information about EyeRIS to teachers and to highlight the effectiveness of using EyeRIS to improve the communicative skills of English language learners. EyeRIS needs to be explored by every stakeholder because this can be a very useful tool for improving and enhancing the teaching and learning process, specifically in teaching English. The most important thing for the teachers in congruence with EyeRIS is the ease of using it.

**Literature Review**

The great ideologist “Confucius” had a prominent saying, “Knowing a thing is not as good as liking it while enjoying it ranks the best”. A child who is fond of what s/he learns will have higher achievement than a child who doesn’t. In the traditional teaching method, teachers talk to their students with chalk in hand. The students are passive in this whole process which makes them lose interest in learning. Now, things have changed. Technology has played a positive role in promoting activities and making the learning process more learner-centred than teacher-centred. (Hennessy, Ruthven, & Brindley, 2005).

Technology has made life easier for the teachers as it assists them in their teaching inside the classroom. Technology in the classroom is a combination of different content forms such as multimedia, Smart-boards, Ipads, Tabs and now EyeRIS as well. Ajayi (2008) writes about the real meaning of multimedia technology that what it is. It is videos, pictures, graphics, audio-visual aids and animation etc. The learners can use these features of multimedia and contents to make their presentations and improve their skills. These contents contribute differently according to the learning of material as well as the age of the students. In order to help the student learning, especially till primary years, teachers need to teach with as many preferences as possible. Therefore, teachers incorporate technology in their classroom so that students enjoy their class and retain what they have learnt (Ajayi, 2008).

The conventional chalkboard system is a thing of the past now. Smart screens are replacing them because they help teachers explain various concepts better and more effectively. While this way of teaching is taking the student-teacher interaction to the next level, it also requires a lot of extra effort on the part of the teachers. The teachers have to first fully learn how to operate these boards and understand their different features. Not even that only, the teachers need extra time to prepare the lectures/lessons as well. So, to overcome this particular problem, some teachers resort to the traditional method of consulting books. The small size of these boards as compared to traditional boards is another obstacle to overcome. Quite often, students who sit in the back have trouble viewing the board clearly. This happens in large classrooms. The students also get overloaded with information sometimes. Then there is the high repair and maintenance cost of these screens to be borne too (McGarr, 2009).

Hennessy (2005) noted that the introduction of ICT could act as a catalyst in stimulating teachers and pupils to work in new ways. The Smart Education System is used with customized software and integrated with sensor technology. The screens are able to handle specialized tools for teaching, audio-visual capability and assistive learning devices, among other features. Adding a multi-touch surface to the mix leads to much better results. It makes the learning experience for the students more enriching. Moreover, it allows students to not only interact with teachers but also with the content displayed or shared on the board. This hands-on learning experience helps students a great deal as they are able to absorb and understand the concepts better (Hennessy, 2005).

**Use of Technology in ESL Teaching and Learning**

With the start of the 21st century, the use of laptops, tablets and smartphones has increased in the classrooms (Aguilar-Roca, Williams, & O’Dowd, 2012; Alkahtani et al., 2016; Awwad, Ayesh, & Awwad, 2013). The benefits of using technology for students in the class include instant feedback from the teachers, more ways for
interactions among their peers as well as teachers, and engagement in learning. Students use technology to practice different skills, playing educational games, online quizzes and polls (Awwad et al., 2013; Taneja, Fiore, & Fischer, 2015).

La Velle, Wishart, McFarlane, Brown and John (2007) stress the importance of ICT as a tool that allows the teachers to transform the learning in their classrooms. Ertmer (2012) reported that there are two types of barriers to implementing technology in the classrooms. External barriers are the availability of resources, support from management and training of teachers for using technology. Internal barriers are teachers’ perception about using technology in the classrooms and whether the students will be benefitted from it or not. After Ertmer (2005), other studies emerged which examined the obstacles to the integration of technology in the classrooms (Arrowood, Davis, Semingson, & Maldonado, 2010; Stobaugh & Tassell, 2011).

In 2011, Dermot Donnelly, Oliver McGarr and John O’Reilly proposed a model in their article which may serve as a starting point for many educational stakeholders planning to integrate ICT in their schools. The article describes different types of teachers and how they relate to the introduction of ICT in their classrooms. With a clear understanding of what stage each teacher is at, educational stakeholders consider relevant strategies for the teachers to adopt effective use of ICT in the classrooms. As noted by Ward and Parr (2010), some teachers see no real need to use computers when “traditional practices continue to work” and hence see “not clearly recognized need to change” (p. 120).

Dana and Christopher (2015) conducted a study in which they selected teachers from public, private and religious schools in the United States. The data was collected from 100 teachers through an online survey followed by interviews from 20 teachers. The results of the survey showed that integration of technology is pervasive in the classroom, with the most often used tool being PowerPoint. The teachers’ point of view about technology integration was that the training about technology is most effective when it is being used in the classrooms. Teachers in the interviews indicated that there are external barriers that impact the integration of technology in the classrooms. Some of them included lack of in-service training, restricted curriculum and lack of available technology. The biggest success for integration of technology, according to the teachers, was peer support, teachers’ attitude towards technology and investment in technology.

In a study conducted by Prestridge (2011), Australian teachers’ beliefs about ICT and their practices in the classroom have been presented. She based her study on surveys and interviews. The relationship between ICT competence, confidence and practice was discussed. As teachers became more competent with the use of ICT, they were more confident to use ICT in their classrooms. As teachers started integrating ICT in their classrooms, they saw a change in their classroom environment. The learning process became easier and more fun for the students.

Prestridge (2011) describes her beliefs about teaching in the following words: “I’m not a believer in direct teaching anyway. I’m more about cooperative teaching, learning together. More like a journey, I suppose. It sounds a bit cheesy but more like saying, here’s the open-ended question; I want you to help me get to it. Let’s work through it together” (p. 12)

New paradigms like digital pedagogies have appeared as a result of changes in teaching and learning (Ertmer, Ottenbreit-Leffwich, & York, 2007; Gibson, 2001; Prestridge, 2010). Digital pedagogy means the use of technology in the classroom which can be in the form of multimedia, tablets, laptops, Smartboards etc.

Zaza and Neiterman (2019) investigated the impact of class size on the use of technology in the classroom. Their study explains that class size should be kept in mind when examining the perceptions of students’ use of technology in class. Before developing measures to remove any problems with the use of technology, student and teacher perception along with class size should be kept in mind. The study was limited because the differences between the frequency, type and duration of technology used in class were not mentioned.

Research also showed that when the student is not engaged in the lesson and his/her level of interest in the lesson is low, the use of technology is high in those classes (Gupta & Irwin, 2016; Langan et al., 2016). Another reason for using technology in classrooms for students is when they perceive that the instructor is not competent and caring (Ledbetter & Finn, 2016).

Schools and teachers are supposed to incorporate ICT into their routine classroom activities to provide better opportunities to students and for improving their communication skills (Schibeci, Lake, Phillips, Lowe,
Cummings, & Miller, 2008). Therefore, the focus of research shifted on ascertaining the extent to which teachers incorporate ICT in their daily lessons (Donnelly, McGarr, & O'Reilly, 2011; Tondeur, van Keer, van Braak, & Valcke, 2008).

Numerous studies have identified multiple elements as contributing factors related to ICT usage in classrooms, such as perceived effectiveness, ease of use, efficacy and the general attitude of teachers and students towards ICT (e.g. Compeau, Higgins, & Huff, 1999; Igbaria, Parasuraman, & Baroudi, 1996; Mac Callum, Jeffrey, & Kinshuk, 2014; Sang, Valcke, Braak, & Tondeur, 2010; Teo, 2011; Tondeur, Valcke, & van Braak, 2008). However, these elements mostly point towards how teachers perceive their ICT skills and their efficacy inside the classroom learning environment. Based on these studies, the research trend shifted to look beyond teachers’ perceptions (Voogt, Fisser, Roblin, Tondeur, & van Braak, 2012). Interestingly, however, the literature from previously carried out investigations still lacks to portray a detailed view on the way teachers utilize ICT to transform students’ communication skills. Abhishek Arora and Priya (2019) discussed some technologies being used in the classroom, which are discussed next.

**Internet of Things (IOT)**

Internet of things cuts down on human effort by allowing things to be controlled remotely via the networks being used. It facilitates collaboration and interaction between students, teachers and objects. (Schibeci, MacCallum, Cumming-Potvin, Durrant, Kissane, & Miller, 2008).

**Artificial Intelligence**

Artificial Intelligence is all about developing functions that allow devices to behave, reason, interact and think like humans to solve problems. The system, it could be a device or a computer, will be able to think on its own, analyze different scenarios and come up with a solution that maximizes the chance of success. Artificial intelligence centers on machines behaving, interacting, thinking and reasoning just like humans to come up with solutions to different problems. The machine could be a computer or any device capable of handling artificial intelligence systems (Schibeci, MacCallum, Cumming-Potvin, Durrant, Kissane, & Miller, 2008).

**Sensor Technology**

Sensor technology has progressed quite a lot since first coming onto the scene, with advancements in technology, that has opened the door for the development of various touch sensors.

**Capacitive Touch Sensors**

Capacitive touch sensors allow users the possibility of interacting with the screen using a finger or a stylus.

**Resistive Touch Sensors**

It is very easy to design resistive touch sensors. They use less power, can be easily used with a finger or stylus and are most affordable.

**Infrared Touch Sensors**

These sensors sense interruption caused via a finger or a stylus and understand the motion (Schibeci et al., 2008).

**Devices and Technologies**

**Kinect Sensor**

Designed by Microsoft, this is a motion sensor that allows users to use hands-free movements to interact with the screen and create content. This sensor is now widely used in education systems.

**Ubi Interactive**

Ubi Interactive is a company that has raised the bar in terms of interaction. For example, the company has developed a technology that can turn a television or a laptop screen into a big touchscreen. Their projectors are
installed above a surface that allows them to use their projectors to show content. Basically, their technology can turn any surface into an interactive touchscreen. (Schibeci et al., 2008).

Use of EyeRis in ESL Teaching and Learning

Developed by CyberNetyx, EyeRis provides a strong whiteboard solution. Its major feature is its capability to turn a traditional whiteboard into an interactive LED pen, or better yet, an interactive board. These boards are technologically advanced screens with not only an electronic visual display but also touchscreen capabilities. The idea is to combine technology and education to encourage collaboration and interactive learning. (Arora & Hariharan, 2019).

Light, McMillan Culp, Menon, and Shulman (2006), conducted a study in multiple countries across the world. The results of their studies reported that teachers who were given EyeRIS training found it exceedingly valuable and felt grateful after they incorporated it in their day to day lessons. However, their studies also stated that teachers’ follow up to the EyeRIS integration varied across countries. This difference mainly resulted due to the support they received from their school and the budget constraints they faced. According to Light, Menon, and Shulman (2007), four dimensions of changes have evolved over time to support the following factors:

- increasing ICT based activities in classrooms
- bringing changes in teachers’ perception of EyeRIS incorporation
- elevating students’ engagement with lesson content through EyeRIS
- changing relationship among students, teachers and parents, and
- using ICT tools for enhancing students’ learning

Out of the four dimensions, three are related to teaching methods (also called pedagogical methods). This supports the idea that teaching methodology plays a significant role in the successful integration of EyeRIS.

If EyeRIS is incorporated effectively into the classroom (making it a high-quality learning environment), it has the potential to deepen students’ learning capabilities by improving their communication skills and the duration of time they retain the learnt information. It can help them construct their own concepts and enhance their analytical capabilities by allowing them to rationalize what they learn on their own (Kozma, 2005; Kulik, 2003; Webb & Cox, 2004).

Nevertheless, just the incorporation of EyeRIS would not be enough. As argued previously, the efficacy of integrating EyeRIS into the lesson largely depends on the teachers’ pedagogical skills, lesson planning and execution. Teachers must be fully aware of their students’ learning capacity and level of understanding. They must know how to generate and execute a successful lesson plan using various resources. There are countless teachers who still firmly believe in traditional teaching methods and are not prepared for this level of commitment to incorporate ICT in their routine classes. (El Mrabet, Hicham, & Abdelaziz, 2017)

A study conducted by Bransford, Brown, and Cocking (2000), argues that effective use of technology demands a paradigm shift in pedagogical methods. This can help catapult the creation of student-centred classrooms across the globe as opposed to the traditional teacher-centred classrooms that still exist. However, it is easier said than done. Bringing change in a place where traditional teacher-centred classrooms are a norm is not a trivial task. It rather takes a lot of effort and convincing to change someone’s perspective and help them see through a new lens. Based on the literature from previous studies, four sets of changes can bring about the necessary shift to student-centred classrooms that utilize ICT tools such as, EyeRIS. These set of changes are further explained as follows:

1. Changes in teachers’ knowledge, beliefs, and attitudes: The literature on education reform highlights the importance of changing teachers’ beliefs and attitudes to create long-term sustainable change (Fullan, 1993). Many studies on EyeRIS integration have evidenced that projects fall short of expectations because the educators continue working within a traditional vision of rote learning (Gersten, Chard, & Baker, 2000; Honey & Moeller, 1990; Teacher Foundation, 2005). Teachers need to believe that new approaches to teaching are effective and will make a difference for their students in order for them to continue using new approaches. Teachers’ understanding and commitment are particularly important to
sustain changes in areas such as project-based learning or student-centred techniques, which require core changes to a teacher’s instructional practice (Gersten et al., 2000).

2. Changes in how students engage with content: Research in the learning sciences has established that constructivist theories of learning provide a more reliable understanding of how humans learn than previous behaviorist frameworks (Bransford et al., 2000). Studies have identified a variety of constructivist learning strategies (e.g., students work in collaborative groups or students create products that represent what they are learning) that can change the way students interact with the content (Windschitl, 2002). The introduction of EyeRIS into schools and project-based approaches will change how students interact with the content through new types of learning activities.

3. Changes in relationships among teachers, students, and parents: Recent studies suggest that, specifically, a supportive and cooperative relationship with the teacher can be very important for learning (Marzano, 2007). Research in many different countries has found that the introduction of technology into learning environments changes teachers’ and students’ roles and relationships (Hennessy, Deaney, & Ruthven, 2003; Kozma & Mc Gee, 2003).

4. Changes in the use of EyeRIS tools to promote students’ learning: The EyeRIS integration in developing countries’ classrooms is challenging (Akbaba-Altun, 2006; Comenius, 2008; Light & Rockman, 2008). A number of factors—such as teacher knowledge, time, access to ICT tools, and the alignment of ICT use with pedagogical goals—appear to help teachers integrate ICT and to support students’ increased use of ICT tools for learning (Light & Manso, 2006).

EyeRIS has been known to improve collaboration skills among students. A lot of parents noticed a profound and positive change in the attitudes of their children. The credit for that is being attributed to how ICT challenges students. ICT compels children to engage with each other, write reports, conduct research, make presentations, debate with peers and teachers. All these things make students more confident and interactive. ICT also strengthens the relationships between the schools, parents and the community. Although schools encourage students to take up ICT, however, the approach to using it has been found to be different. For example, since in India and Turkey, the school timings are short with a very tight schedule, the teachers need to improvise in order to manage time. They do that by rationing access or by working outside of their class to help students meet their ICT project deadlines. On the other hand, a group of teachers decides to meet every semester in order to decide which classes will be allowed to conduct long term projects so that no student misses out every year. The only thing common between schools from India to Chile is that the teachers prefer to give students internet research-related projects. (Tezci, 2009).

Teachers’ usage of EyeRIS in the classroom to enhance the communication skills of their students is significantly different from all previously carried out researches since it does not seek teachers’ perceptions. Instead, the present study intends to look at the actual use of EyeRIS in classrooms combined with an assessment of its efficacy in improving students’ communication skills. In fact, this investigation would idolize Schmid, Bernard, and Jacobson’s (2014) appeal for changing research “towards a more fine-grained analysis of identified instructional factors” (p. 286). This study would aim to provide invaluable evidence on the connection between teachers’ incorporation of EyeRIS in their lessons and improvement in students’ communication skills.

Multimediality in ESL Classrooms

Baig (2014) termed and referred to digital technology as multimediality, which is considered a contemporary tool used for instructional purposes. She further supports multimediality because it not only makes learning fun but also constructive.

Methodology

Since the current research focuses on classrooms that use EyeRIS, so the researcher collected data through qualitative structured interviews. The researcher focused on Grade 1-5 for the purpose of the research. The population for this research was primary level English language teachers in the private sector in Lahore. Since EyeRIS is not commonly used in schools till now, the researcher selected only one school which is using this technology. Purposive sampling technique was used to select participants who, according to Maxwell’s (1996)
definition, denotes that “a selection strategy in which particular settings, persons or activities are selected deliberately in order to provide information that can’t be gotten as well from other choices” (p. 88). The study participants were the five teachers who teach the English language to Grade 1-5 in the selected school. There were ten questions on the structured interview guide developed by the researcher. Thematic analysis was used to analyze the interview data.

Findings and Discussion

This section comprises the analysis, findings and discussion of the data. The findings are presented in tables based on the structured questions on the interview guide. The interview questions are presented in table 1 below.

Table 1. Interview Questions

<table>
<thead>
<tr>
<th>Question No</th>
<th>Questions</th>
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<tbody>
<tr>
<td>Q1</td>
<td>Do you use EyeRIS for teaching? If yes, Why?</td>
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<tr>
<td>Q2</td>
<td>Have you taken any formal training in EyeRIS? If Yes, what type of training?</td>
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<tr>
<td>Q3</td>
<td>How does EyeRIS help in improving your students’ productive skills (Writing and Speaking)?</td>
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<tr>
<td>Q4</td>
<td>How does EyeRIS help in improving your students’ receptive skills (Reading and Listening)?</td>
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<tr>
<td>Q5</td>
<td>Do you feel that EyeRIS helps you in teaching productive skills? Elaborate.</td>
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<tr>
<td>Q6</td>
<td>Do you feel that EyeRIS helps you in teaching receptive skills? Elaborate.</td>
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<tr>
<td>Q7</td>
<td>What impact do you think EyeRIS has on students’ engagement in the class?</td>
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<td>Q8</td>
<td>If EyeRIS was taken away from your class, how would it affect your teaching?</td>
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<tr>
<td>Q9</td>
<td>Along EyeRIS, what other softwares do you think are effective to improve the communicative skills of students?</td>
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<tr>
<td>Q10</td>
<td>Does EyeRIS help you in class management? If Yes, How? If No, Why?</td>
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</table>

In response to the question that do you use EyeRIS, one response which was common in responses of all respondents was ‘yes’. All of the respondents (5/5) responded that they use EyeRIS in their classes. The majority of the participants (4/5) affirmed that EyeRIS is very interactive. Respondent one said that

_I use EyeRIS in my English classes often because it helps me deliver my lesson in a way that my students could actually remember and understand better. The audio-visual aid helps increase the attention span of my students and makes the lesson more interactive._

Respondent 2, 4 and 5 shared the same opinion about EyeRIS. All the responses of the respondents were similar to the findings of Le Lant and Lawson (2016), who concluded that the use of IWB encourages interactive and collaborative learning. Similarly, Alexiou-Ray, Wilson, Wright and Peirano (2003) maintain that the use of interactive whiteboards emphasizes “a more constructivist approach in which students are actively learning with “real world” implications” (p. 73).

In response to the question about training, most of the participants said that they had taken some sort of training for using EyeRIS. The majority of the respondents (3/5) said ‘yes’ as a response, while two respondents said ‘No’. Respondent two said that “Yes, proper training sessions were being conducted as to how to calibrate the system and use the system once done.”

In response to the question on productive skills, one response that was common in responses of all respondents was that students are really interested in classes when EyeRIS is being used. They retain information for a longer period of time which consequently improves their speaking and writing skills. All of the respondents (5/5) responses reported that EyeRIS improves the productive skills of their students. As respondent three said, “The students’ writing and speaking skills are enhanced due to the use of AV Aids through EyeRIS. It helps them to improve their vocabulary and making them more confident”. Soares (2010) also explained that with the use of IWB, pupils’ autonomy in the classroom is enhanced; the use of the board encourages collaboration and interaction among them. Due to this collaboration, the students are able to retain information for a long time and enjoy the class. So, IWB may be a key to increasing learner’s motivation to learn.
In response to the question above, one view which was common in the responses of the respondents was about the focus level and concentration span of the students. All of the respondents (5/5) suggested that with EyeRIS in the class, the students’ focus is on the board. They listen well and are able to retain information for a long time. Another theme that emerged here is pronunciation. Three of the respondents responded that students’ pronunciation improves because of EyeRIS. According to respondent 2,

*Once you start teaching on EyeRIS, the child’s main focus is on the board as he/she is eager to see what will happen next. They concentrate more, listen well and thus are able to retain and remember whatever is being taught in the class. This process helps in improving their pronunciation and receptive skills.*

Same findings were revealed by Yáñez and Coyle’s study (2011), who commented that “elements such as the ability to integrate sound, video, text, and animation can support individual learning styles, with the possibility of combining these elements in ways which suit particular sets of learners” (p. 449).

The data for question 5 shows that the classes are student-centred, and the students are willing to participate in the class. All of the responses show that EyeRIS improves the productive skills of the students. As respondent two states,

*Yes, it does. The concept is understood better as compared to simple board teaching due to the greater interest level of the class. The children love to contribute the abundant ideas which they have in their mind rather than just sitting aimlessly.*

Prior research of Sad and OZhan (2012) has shown the same findings. Sad and OZhan (2012) believed that with the use of smart boards, the learning process becomes more effective and productive. Smartboards help students to visualize content which makes the class fun for them.

In response to this question, one theme which was common in responses was that every student becomes a part of the class. All of the respondents reported that every child in the class participates and contributes because of EyeRIS and the class becomes extremely interactive and fun to take. According to respondent three, “Yes, it helps in teaching receptive skills. EyeRIS plays a vital role in making a class interactive, thus making each student a part of the lecture. The students take more interest in whatever is being taught to them”.

The theme which emerges as a result of the responses of all of the respondents is that the class becomes colourful and exciting because of EyeRIS. The students interact with materials on the board, thus making the class extremely interactive. It increases the interaction of the teacher and the students and encourages students to ask questions. Previous research conducted by Aytac (2013) has documented a similar finding. Aytac (2013) “agreed that using an IWB is motivating, engaging, and enjoyable” (p. 30).

In response to the question, if EyeRIS was taken, how would it affect your class? The responses of all participants show a common theme that the class will become dry and monotonous, and students will lose interest in learning. It will become a boring class and students will not learn anything. Respondent one said, “The class would become monotonous and dry. Students would soon lose their interest because most kids at a young age are visual learners. If it is just words, it is highly likely they would forget it”. Respondent two said, “Children do not like dry teaching. They want interactive ways of learning even for petty things. They will take less interest and consequently will not produce the desired results”.

In response to the above question, 3/5 of the respondents suggested ActiveInspire. Other names like Kahoot, Edmodo and Storybird were also mentioned by the respondents. All this software can make classes interactive, fun and exciting for the students.

In response to this question, the respondents clearly state that EyeRIS helps them in class management. All of the teachers responded that the students become more focused, show more interest in class and concentrate on the lesson due to EyeRIS. According to Respondent three:

*Yes, by using EyeRIS in class, the students get more involved in the lecture, and it becomes easy to control them hence making the learning process easier. As EyeRIS integrates text, images, videos etc., I am able to engage each of my students in my class which makes lessons more productive.*

Respondent five said: “Yes, it helps in class management because the students are more focused”. According to the responses of the teachers, it was easy to tackle disruptive students too.
The qualitative findings highlighted the fact that teaching through EyeRIS has a significant impact on the communicative skills of the students. According to the responses of the respondents, the classes were very interactive due to EyeRIS. The students understood the concepts in a better way, and they were able to retain learning for a longer period of time. The students were really interested in the class, which in turn improved their concentration span.

Talking about receptive and productive skills, the findings show that EyeRIS helps to improve the pronunciation, vocabulary and writing skills of the students. The class becomes student centered, and the children are willing to put forth their abundant ideas. The students enjoy taking the class, which in turn improves their learning experience.

The findings also show that EyeRIS has a positive effect on the behaviour of the students and, thus, on their engagement in classroom activities. Even the disruptive students behave in the class and do not disturb the teacher. The findings suggest a positive correlation between classroom engagement and EyeRIS use. EyeRIS helps in classroom management tool, as the students use all their energy in learning.

The findings also revealed software that is effective to improve communicative skills like ActiveInspire, Kahoot etc. The teachers also shared that their classes would be dry and monotonous if EyeRIS is taken away from them.

**Conclusion**

The current research explored the effectiveness of using EyeRIS to improve the English Communication skills of primary students. The present research holds importance for teachers and other educational institutions that want to incorporate technology in their classes. This chapter concludes the study and presents key findings, limitations of the study, recommendations and future research suggestions.

The findings indicate a significant effect of EyeRIS on improving the Communicative Skills of students. The quantitative and qualitative findings both revealed that students’ receptive as well as productive skills improved through the use of EyeRIS. The use of EyeRIS has a positive impact on student engagement and class management. It can be asserted that EyeRIS is a powerful engagement and motivational tool in educational instruction. Because engagement in the lesson is an essential component for student achievement, EyeRIS has the potential for improving student academic performance as well as classroom behaviour. Additionally, the findings revealed that the classes were very interactive due to EyeRIS and the students participated actively in the class. The students understood concepts properly and were able to retain information for a longer period of time.

One of the major limitations of this study was that only one school was included in the study with a small sample; thus, the results cannot be generalized. Another limitation to this study was that due to time constraints, the data was collected from a private institution only, and the public sector was not included.

On the basis of this study findings, the following recommendations can be drawn:

- Schools should provide certified EyeRIS training to teachers.
- EyeRIS should be introduced in the early years as well.
- EyeRIS can be used to improve other subjects like Maths, Science and Social Studies.
- More schools should use EyeRIS in their classrooms to enhance students’ learning.

Future research needs to be conducted to investigate the effect of using some EyeRIS activities such as (category sort activity - Text splitter - word generator) on enhancing pupils’ vocabulary and grammar. Secondly, schools should implement specific training programs and ongoing support to equip both students and teachers to deal with the interactive features of EyeRIS. Thirdly, teaching methodologies utilized by the teachers who use EyeRIS should be researched. Apart from that, research can be conducted on other software like Kahoot, ActiveInspire etc.
References


Marzano, R. J. (2007). The art and science of teaching: A comprehensive framework for effective instruction. ASCD.


