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Technology in the Classroom; The New Age Classroom

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Abstract

Technology in the classroom has transformed the classroom today. Many argue if this change is for the better. Researchers have examined the benefits and possible harm of technology in the classroom. This research paper will discuss the benefits and potential harm technology can bring to the classroom. A few benefits that research has shown is that technology helps student motivation, technology increases classroom behavior, and more resources are available for teachers. In certain cases that we will discuss in this research paper students with disabilities have benefited from the use of technology. A few teachers are fearful of the change technology brings to the classroom. Some professional believe they are not up to date with current technology, and therefore cannot implement the use of technology correctly in their classroom. This research paper will also discuss how to properly implement technology in the classroom.

Introduction

Should schools be investing in technology for their classrooms so students will grow into successful adults? Technology has changed the classroom as we know it, new resources allow teachers to spend more time with students, technology has made students more motivated, and behavioral issues have decreased with the use of technology. Should schools be supporting the use of technology in the classroom? Researchers have examined the benefits and challenges associated with the implementation of technology in the classroom. Despite all the positive research of technology in the classroom, there are still some teachers hesitant to use technology.

Uses of Technology in the Classroom

Tiene and Luft (2001) investigated the use of technology in the classroom examining how ten teachers, whose students spent two months in a technologically advanced classroom. The teachers believed by submerging students in a technology rich classroom, class climate changed, students worked more independently, customized plans for students were implemented, and student improvement was enhanced (Tiene & Luft, 2001). The authors' purpose was to tell the benefits of having a classroom full of technology. One benefit was that the teachers mentioned of having a technology filled classroom were students worked in teams therefore becoming more of a student-centered classroom.

Researchers have examined potential positive and negative challenges that have resulted from the use of technology in the classroom (Tiene & Luft, 2001). A few positive changes are student motivation, classroom behavior, and the change of classroom dynamics. Many concerns were brought to attention before the study started. A few concerns were teacher's knowledge of the technology, how the students would work with the technology provided, and how the

students would work together (as stated in McGrath, 1998, p. 23). Potential negative aspects of students using technology in the classroom is cyber bulling, cheating, and distractions. Teachers must be aware of these concerns and implement proper rules to avoid these issues. Teachers must supervise students using technology in the classroom (Maldonado & Morgan, 2010).

The "Classroom of the Future" project shows how beneficial a technology-filled classroom can be for students and teachers. Students were able to work in teams and independently in these classes. The teachers in the study found they could work more one-on-one with the students. Students in the classroom worked more in small groups. The teachers were able to create individualized lessons for their students because of the small groups. The classroom changed to a student-centered teaching environment. Students in the study became more motivated and attentive because of the use of technology in the classroom. Students invested in their own learning. By having a classroom filled with technological resource students worked more independently (Tiene & Luft 2001). The overall findings of the study showed both teachers and students had success working in the classroom.

As the classroom changes from a teacher-centered environment to a student-centered classroom, teachers need to know how to facility these changes. Students are now encouraged more to work in small groups, while teachers become more of a facilitator. Some teachers are using a Digital Teaching Platform (DTP). A DTP is where teachers use different teaching techniques combine with technology. The teacher will present the lesson using standard curriculum and then the students uses a computer or digital device to interact with the lesson (Nelson ,2013, p.4). The teacher is then able to work more with small groups. As students interacts within the lesson with technology each student must have some sort of electronical

device. There are many ways school districts are making this possible. Students are bringing their own devices to be used in the classroom, and teachers are receiving grants for technology. Classrooms must be set up where students are able to access technology at their desk. This step up includes the addition of many charging outlets for laptops and iPads. As students begin working more in groups seating arrangements need to be considered. Use of technology in the classroom brings many new changes for students and for teachers (Nelson, 2013).

Another use of technology in the classroom is video games. Teachers are incorporating video games in their lessons (Siegle, 2015). Video games have been found to have many positive effects on students. Video games have shown to have cognitive, motivation, emotional, and social benefits on students (Granic, Lobel, & Engels, 2014, p.192). Teachers can implement video games in the classroom to enhance student motivation and build teamwork among students. There are many educational video games that teachers can chose from. Siegle (2015) suggest a few different educational video games available to teachers. Some of the games mentioned are free, while other games teachers would have to purchase.

Math & Science Gizmos and *Kahoot a*re two suggest games that are highly recommended. Math & Science Gizmos is a game that must be purchased, and each lesson is tie to Common Core standards. Students can learn through the interactive game different science and math concepts. Kahoot is a game that is free, and student answer multiple choice quizzes in a game like program. Students can play these games individually or the whole class can play. Video games can offer an exciting new use of technology in the classroom Siegle (2015).

Tiene and Luft (2001) explain how students are "extremely tech savvy," Students have been engrossed in technology since a young age. In 2013 seventy-one percent of Americans ages

three and up used the internet (Synder, De Brey, & Dillow, 2016). Hicks (2011) states that since students have so much experience with technology, students think, learn, and experience school differently. Willingham (2009) found that students between the ages of eight and eighteen spend over seven hours a day using some form of technology. Many students feel that they cannot leave their house without some form of technology. As students learning style changes due to technology, so do teachers' methods of teaching. Technology is always advancing; therefore, teachers need to stay up to date with these changes. Hicks (2011) suggest with the use of technology in the classroom, is that many teachers feel they cannot successfully implement technology in their lessons. There are several solutions to this issue. School districts can offer professional development days to help train teachers that lack these skills. Also, teachers can share experiences and advice on technology over teacher communities. Hicks (2011) tells the readers that to be a teacher, "One must be tech savvy" (p.188).

Technology of the Past

Researchers have been studying technology in the classroom for decades. There has been some form of technology in the classroom for some time, but how technology looks today is very different from years ago. A few of the most popular pieces of technology found in the classroom of the past are typewriters, slide projectors, and mimeograph machine (Blankenship, 2010). From teachers using 16mm film to early educational programs, most students would not recognize these technologies of the past nor be able to operate them. Even a few years ago TV's and DVD players were a new piece of technology in the classroom. At the start of the 1980's computers were the newest technology of the day, but the computer of that time had limited capabilities (Vonesh, Rulis, & Al-Bataineh, 2011, p.164). Even so, computer assisted technology has been

around for a long time. Current computer assistant programs offer tutoring and interactive websites to fit student needs. By 1998 the average school had ninety computers. A few years later in 2005, the average school had one-hundred and fifty-four computers (National Center for Education, 2009). Virtual classrooms are increasing today, and online learning are becoming more and more popular (Ross, Morrison, Gary, Lowther & Deborah, 2010). Today classrooms are equipped with the latest technology such as iPads, interactive whiteboards, mobile devices, and clicker systems (Ahmed & Nasser, 2015). The next sections discuss even with the latest technology available to teachers, why some teachers are resistant of implementing technology in their classroom.

Teacher's Resistance of Technology in the Classroom

Hicks (2011) expresses how with the change that technology has brought to the classroom not all teachers are welcoming these changes. Many teachers including Hicks believe technology in the classroom is beneficial to students and teachers. The author describes why some teachers are hesitant to use technology in their classroom. One reason teacher's do not want to use technology in their classroom is they are fearful of looking foolish in front of their students (Hicks, 2011). Some teachers believe that the students know and can use technology better than them. Another reason teacher's may be resistant to technology in the classroom is because the teacher has not been properly trained to use the technology. Also, some teachers may not have the support to fix technological issues within their classroom. Hicks mentions that some teachers feel that technology in the classroom does not help students enough to learn and integrate technology in their lessons. Some teachers feel technology in the classroom is distracting to students (Vonesh, Rulis, & Al-Bataineh, 2011). Another reason why some teachers

do not use technology in their classroom is, they think they should not be required to learn how to incorporate technology when they believe the outcome is so little. Also, some teachers do not want to implement technology in the classroom because of the time factor. Teachers need ample amount of time to plan to use technology in the classroom and be able to effectively use the technology. Many teachers do not have the luxury of time to spare for trainings (Vonesh et al., 2011).

Another reasons teacher's may not support technology in the classroom is because of the cost of the technology (Maich, & Hall, 2016). There are many technology grants that teachers can apply for. Many teachers are given grants to help fund the lack of resources found in many schools. Teachers might question that they do not feel qualified to write a grant, but all the steps and how to write a grant are online. Since the cost of technology is high, getting grants for your school might be one solution (Dugan, 1995). Many teachers know that the cost of technology is high. A few resources that teachers can use in the classroom that are free are apps, e-books, and educational games. As textbook prices increase e-books are a great solution for the classroom. One study from Pro Con.org tells how on average schools save $250-$1,000 when switching to e-books (Maich, & Hall, 2016). Some students are given a choice between a textbook and a CD-ROM that has the same information on it. When students pick the CD, schools are saving money on textbooks. The CD's are digital copies of the textbook. Students use the CD's exactly like they would a textbook, but there were some advantages of using the CD. One advantage was students were able to search topic within the digital textbook. It might take students longer to access what they are searching for using a hard copy of the textbook. Using the digital copy of the textbook students were able to find what they were searching for in seconds (Warlick, 2004).

Schools may not have the funds for every student to have their own computer, an alternative solution would be handheld devices. Handheld devices are also considered to be a green technology by allowing teachers use less paper therefore saving money. Green technology is technology that is environmentally friendly (Maldonado & Morgan, 2010). Rodriguez (et al., 2013) discussed how teachers are implementing mobile devices in their classrooms, and how useful mobile devices are in the classroom. Recently, many schools have allowed students to use their own cell phones in the classroom. While there are some schools that still prohibit mobile phones in the classroom more schools are discovering the benefit of allowing students use their own devices. The authors suggest that by allowing students to use their own cell phone, teachers can integrate cellphones in the curriculum without the added supply cost (Rodriguez, Stradova, & Cummings, 2013).

Blankenship (2010) mentions how some teachers might be against technology in the classroom because they believe social interactions between students and teachers and students with other students are being lost. This play a bigger role when students are enrolled in online course. Even online course and virtual classrooms have some form of interactions between the teacher and students. Students use online discussion boards to communicate and get to know their classmates. Emailing and chatting are one-way students can communicate with their teachers and classmates (Blankenship, 2010). While video chat and skyping are becoming a useful tool in online learning. Even with the concern of losing face-to-face interaction, more and more teachers are moving to a technological classroom.

Lastly, some teachers argue that since some students do not have access to technology at home, therefore they cannot require the student to use technology for assignments given in class.

Some students do not have wi-fi accessibility, and this is a concern for many teachers (Harrell &

Bynum, 2018). One statistic showed that only sixty-eight percent of students had wi-fi

accessibility (Pearson, 2015). These teachers question how the other thirty-two percent of

students without Wi-Fi can still complete the assignments given to them. While this is true for

some students, teachers can give students ample of time to complete these assignments in class

by using the technology in the classroom. Also, many public places such as the public library

offers free wi-fi, students can visit these places before or after school. Many classrooms today

have iPads, computers, and laptops that's are available for student use. Teachers can also open

their classrooms before and after-school for students who do not have access to technology at

home.

Professional Development Days

School districts that are in favor of technology in the classroom need to make

professional development days for teachers that do not feel comfortable using the technology.

Many teachers have access to the latest technology but do not implement it in their classroom

due to lack of training (Vonesh et al., 2011). A PD Day is a day to improve teachers' knowledge

and skills on a topic to help increase student achievement (Professional development, n.d.).

These professional development days can help show teachers the basics of implementing

technology in the classroom. Many schools do not have funds for teachers to go to these

trainings. But with the support of the school district more PD Days can become available to

teachers (Vonesh et al., 2011). Teachers must have not only professional development days but

resources and support from the school district. Also, school districts need to make available IT

personal to help teachers with any technological issues they might not be familiar with. Most

teachers only have eight or less hours of training with technology in the classroom. When more teachers are offered more time to train on how to incorporate technology in the classroom, teacher will become more comfortable using technology. When teachers are properly trained with the technology available to them, more teachers will implement technology in their classroom.

Benefits of Technology in the Classroom

One benefit that technology can bring to the classroom is it can be a time saver for teachers. Teachers can enter grades through technology. Teachers must document everything in their classroom, and online resources allow teachers to always have a digit copy of their documentation even if the original copy is lost. Planning a lesson is easier to access when done using technology and finding resources online to help students is faster and more efficient (Blood & Gulchak, 2013). Teachers can find activities and plan lessons online for their future classes. Online storage allows teachers access to endless amounts of room for lessons and activities. One website that is very helpful in planning lessons and activities is *Teachers Pay Teachers*. This website sells lesson plans that other teachers have created and share some lesson plan for free. Many of these lessons correspond with core standards and teachers that create these lesson release copyright permissions once purchased. Also, technology can help students interact with their lessons. A few interactive resources online are *Brain Pop*, *Fun Brain*, and *Scholastic.com*. Brain Pop is an interactive website that has educational games and videos in math, science, reading, and social studies. Fun Brain is a website that offers free educational games, books, and videos. Scholastic is website that allows teachers to order books and host book fairs for their school. These interactive websites make students believe they are playing games, they are having

fun and learning at the same time. When done correctly technology in the classroom can be successful for both students and teachers.

Another benefit of using technology in the classroom is being able to connect with parents. Parent involvement and communication with their teacher has shown higher academic success in students. When parents are involved in their child's education, students' attitude towards learning increases, attendance increases, and academic skills increase (Fan & Chen, 2001, p.1143). Many teachers interact with parents through classroom websites, class dojo, text, and email. Schools also, offer parent-teacher conferences, where parents can meet with the teacher and discuss student progress. Some schools host "Parent Night" where students and parents come to have a fun family night at the school with their teachers. Many teachers are moving towards technology to communicate with parents.

Walsh, Cromer, and Weigel, (2014) research how a DVD classroom newsletter in English and in Spanish benefitted one class. There has been a strong correlation between teacher communication with immigrant families and the success of low-income students (McWayne, Melzi, Schick, Kennedy, & Mundt, 2013). There are many issues with communicating with immigrant families. One main issue is being able to communicate when many families cannot read or write in English. Teachers can communicate with immigrant families through technology. As Walsh et al., (2014) research how a DVD classroom newsletter made in English and in Spanish benefited one class. These DVD's included class information, announcements, and tips on how to help students can study at home. These DVD's shown to have a positive effect on parents and student. Teachers were able to connect and communicate better with parents using the DVD classroom newsletter (Walsh et al., 2014).

Classroom Management and Technology

Teachers can use technology to help implement classroom management skills in the classroom. One piece of technology teachers is using to help with classroom management is an app called *Class Dojo*. What is *Class Dojo*? *Class Dojo* is an online classroom management program that records student behavior, and gives student and parents instant feedback (Garcia, Eliana, Hoang, & Dana 2015). *Class Dojo* gives students point for positive behavior. The app is appealing to student because each student gets a character. Teachers can communicate to parents about student behavior, announcements, and upcoming events through *Class Dojo.* All conversations are recorded and save on *Class Dojo.* This allows teachers to have a record of student behavior and conversations with parents. Teachers establish what positive behavior they are looking for in student's and can use *Class Dojo* to keep track of these desirable behaviors. Parents and teachers can download *Class Dojo* on their mobile devices for free (Garcia, Eliana, Hoang, & Dana 2015). *Class Dojo* is a simple and easy program that teachers and parents can use. One incentive the students have when teacher used *Class Dojo* to behavior is the cumulative points students can earn for positive behavior. Likewise, teachers can remove points for negative behavioral. Teachers can offer rewards and privileges to students for accumulated points. Teachers can reward students by having positive behavior by allowing student to get something out of the treasure box or be the teacher helper for the day (Garcia et al., 2015, p.4). Many teachers have had success using *Class Dojo* and positive reinforcement the program offers. Most primary students want to please their teacher and do well in their class. *Class Dojo* has been known to help primary students with behavioral issues. There are many benefits of using *Class*

Dojo in the classroom and they are: being able to communicate with parents, providing instant

feedback to students, and offering positive reinforcement to students (Garcia et al., 2015).

Additional benefits teachers are using to implement technology in the classroom to help

student with behavioral difficulties are by teaching the student different strategies to help control

these behavioral issues using technology (Bruhn, Waller, & Hasselbring, 2016). One approach

teacher is taking to help these students is through self-monitoring. Self-monitoring is a strategy

that sets goals for students and teaches students to be aware of their own behavior. This behavior

strategy has been around for some time, but teachers are now using technology to help

implement self-monitoring skills. Technology such as a timer or pager are being used to help

prompt students to monitor their own behavior (Bruhn et al., 2016, p.158). For example, the

teachers will set a timer for short increments, during this time the student will reflect and record

if they have been on task during their assignment. Mobile devices have also been used to help

students record their behavior. There is certain aspect for teachers to consider when using

technology to help students self-monitor behavior. A few things teachers need to consider when

teaching self-monitoring strategies are: if the student is able to monitor their own behavior,

teachers must pick the most appropriate technology to help prompt students to record their

behavior, and the student needs time to get familiar with the prompting device (Bruhn et al.,

2016). Lastly, teachers need to observe and record the student's behavior along with the student.

The use of technology to help teach students self- monitoring skills has been successful in the

classroom. There are many parts of incorporating technology to help teach self-monitoring skills,

and they are picking the correct technology for each student, practicing how to use the

technology with the student, and making sure the student can handle the technology given to

them. As behavioral issues decrease teachers can spend more time instructing and assisting their students in their classroom (Bruhn et al., 2016).

<div align="center">**Resources for Teachers**</div>

Teachers have many tools and resources to help them incorporate technology in the classroom to enhance student learning. It is important that teachers incorporate technology in the classroom appropriately. School districts should provide staff with appropriate training and support for each resource. The preceding section examines different tools available to teachers. A few of these resources that are available to teachers are interactive whiteboards, clicker systems, and iPads and interactive apps.

Interactive Whiteboards

Interactive whiteboards have become a great resource for teachers. An interactive whiteboard (IWB) connects a computer to a projector onto a large touch screen. Teachers can display information, videos, and lessons for students. Teachers and students can use the touch screen to control the interactive whiteboard. There are many benefits of having an interactive whiteboard in the classroom. A few benefits that the whiteboard brings to the classroom is a large screen that all students can see, students can move and interact on the whiteboard, and teachers have unlimited amount of storage. Interactive whiteboards can help teachers plan lessons. The teachers were able to prepare the lesson easier using the interactive whiteboard. The lessons structure allowed teachers to give feedback on where to improve the lesson. Lastly, teachers were able to store material on the whiteboard for their future classroom and make changes base on individual students. Students were more focus and involved in the lesson when the teacher used interactive whiteboards instead of a standard dry erase board. (De Vita,

Verschaffel, & Elen, 2014). When students are more involved in a lesson behavior issues decrease in the classroom. Many teachers have stated that classroom management is no longer a big issue (Tiene & Luft, 2001). Interactive whiteboards have been known to interest students more in the lesson you are teaching but not necessary the subject matter. One study showed that when the students were asked about interactive whiteboard the students were excited about this technology, but when the students were asked about the subject matter discussed they were not as excited about the content subject. Still when teachers and students were asked about interactive whiteboards the overall censes was positive. The outcome of this study showed teachers must use more than just an interactive whiteboard in their classroom (Willingham, 2009). Interactive whiteboards can help improve lesson but cannot be used alone. Also, teachers can connect different devices to the interactive whiteboard. Teachers can connect iPads to interactive whiteboards when students want to share their work with their classmates. When students share their work with their classmates, students are practicing cooperative learning.

E-Books

E-books are becoming very popular and are in high demand in the classroom. E-books offer accessibility to students and are less expensive then print textbooks. What are e-books? E-books are copies of print books that have been converted to digital form (Jones & Brown, 2011, p.7). E-books can be accessed through hand-held devices such as a kindle or a computer. The cost of kindles is low. There are many benefits of implementing e-books in the classroom. A few benefits are students can access and download more than two-hundred thousand e-books, downloading these e-books take less than a minute, and many e-books are free (Jones & Brown, 2011). One popular publishing company *Scholastic* has a variety of e-books available for the

classroom. Teachers can subscribe to *Scholastic* and bring the most popular children books to their classroom through e-books. Many e-books are interactive by providing audio of the book, and providing definitions used in the e-book. Jones & Brown (2011) research how a third-grade class used e-books in their class. The study involved twenty-two third grade students. In the first half of the study students used a print book, these students than read the book aloud or the teacher. Following the reading students answered question, completed a reading activity, and took a quiz on what they read. The next section of the survey students used laptops to read an e-book, and students completed a quiz on what they read. The findings in the study showed that students enjoyed reading both print and e-books. Another finding in the study showed that the students appreciated being able to pick the story. More research needs to be completed before knowing if e-books have a significant on student engagement (Jones & Brown, 2011). The most beneficial aspect of e-books are the accessibility and affordance.

iPads and Apps

Most teachers are using iPads in their classroom because of their accessibility and all the information readily available. Many school districts are providing iPads for their classrooms. Most classes today have a classroom set of iPads. This allows every student to have their own iPad. Students can then do many activities and research with their iPads. There are many apps that can help teachers implement technology in their classroom. The authors list many beneficial apps (Ahmed & Nasser, 2015). A few apps that are listed are Creative Book Builder, Quizlet, and Pearson Grammar Lab. Creative Book Builder is an app that students can use to create their own books. Quizlet is a program that students can make flashcards, study, and educational games. Pearson Grammar Lab is a program that helps assist students with grammatic issues.

Many of these apps are free for students and are easy to access. Many school districts pay for the use of some apps. Teachers might ask which app they should chose the authors suggest the SAMR model created by Ruben Puentedura (Ahmed & Nasser, 2015). The SAMR model stands for substitution, augmentation, modification and redefinition. In the first section of the SAMR model teachers teach the same lesson but with the use of technology. In the second section of the model teachers use technology and apps that supplements the lesson. In the last two sections students can modify and change these apps to fit individual needs (Ahmed & Nasser, 2015). Benefits associated with the use of apps includes assisting students with disabilities, tutoring, and language skill development.

Another benefit of incorporating iPads in the classroom is for motivation. For instance, Clark (2017) explains that only fifty percent of students ages eight to eighteen enjoy writing. What can teachers do to help encourage students to write? By implementing iPads in the classroom, it has been shown that students are more motivated to write. Students are more motivated to write because they no longer see writing as a task when using an iPad but more as reward. Teachers also mentioned when students use an iPad to do an assignment, they see it as enjoyable rather than work (Dunn & Sweeney, 2018, p.864). One teacher discusses how students who usually hate to write, write more when using the iPad. Some students who used an iPad for their writing assignments in school, wanted to download the same apps at home to practice them. iPads offer spell check this helped many students who struggle with spelling and grammar. Also. iPads can record students reading their writing assignments. This allows students to understand what they are writing and correct any grammatic issue when they hear their writing out loud. Since there are many different writing apps available on the iPad students enjoyed the

independence that comes with the iPads. Students can also design their own stories and express creativity throughout their work with the use of an iPad (Dunn & Sweeney, 2018).

QR Codes

QR codes are becoming a popular tool for teachers to use in their classroom. What are QR codes? QR stands for quick response and were created around twenty years ago in Japan (Cetner, 2015). QR codes are a bar code that stored information and can be linked to a website. You can access QR codes through a QR reader or app. The only requirement to be able to read a QR code is the device having a built-in camera. Many mobile devices, tablets, and iPad's come preinstalled with a QR reader. Today QR codes are usually located at museums, restaurants, and flyers. These codes lead people to website to access more information about where they are visiting (Cetner, 2015). One-way teachers can use QR codes in their classroom is by pasting QR codes are a sheet of paper having students look up information through a QR reader. Additional, QR activities include researching different authors through QR codes, accessing information about historic events and sites, and using *WebQuest* to look up any information online. Many teachers can create their own QR codes through free online websites and apps. Educators can use these QR codes to assign YouTube videos, articles, and brochures they may need for an assignment (Cetner, 2015). Another use of QR codes in the classroom is teachers can display students work through copies of QR's. Teachers have limited space to display student work so displaying QR codes instead saves on space (Robertson & Green, 2012).

Google Technology

A popular online program that teachers are incorporating in their classrooms is *Google Classroom*. What is *Google Classroom*? *Google Classroom* is a free program that allows

teachers to manage lessons, resources, assignments, and communicate with students and parents. A few benefits of using *Google Classroom* are teachers can assign, gather, and grade students work all in one place (Al-Mallah, 2018). Teachers can use *Google Classroom* to communicate with parents. Teachers can send out announcements, upcoming events, and reminders on *Google Classroom.* Many times, parents wonder and question their children about what homework they have due the next day. Most children would say they don't have any homework, *Google Classroom* is a great way parents can find out what assignment's students have due, and make sure student complete their assignments. *Google Classroom* can store and share students work (Iftakhar, 2016). Students can submit work to *Google Classroom,* where the teacher can give feedback on the assignment. Parents can see teacher feedback on their children's assignments and grades. By students uploading their assignments to *Google Classroom*, other students in their class can team up and complete their best work (Keeler, 2014). Students can create a group on *Google Classroom* and work together on a project. Keeler (2014) mentions how *Google Classroom* motivates collaboration between students (p.13). Google Classroom is very simple and easy for students and teachers to use (Iftakhar, 2016).

Google classroom is just one feature that Google offers. There are many different benefits that Google has to offer to teachers. Some applications that Google offers are *Google Search, Gmail, Google Forms, Google Calendar, Google Scholar and Google Docs* (Adams, 2008). Lastly, *Google Earth* is also being used in the classroom. What do all these applications offer teachers? *Google Search* is one of the largest search engines, and students can research popular topics and get information (Adams, 2008, p.97). *Gmail* is an online delivery system and can store information. *Gmail* is not only helpful for students; parents are able to access Gmail to

communicate with teachers. Many teachers are switching to *Google Forms*. *Google Forms* allows parents to fill out forms for field trips, student information, etc. electronically. *Google Forms* allows schools to save on paper and has a better respond rate from parents. *Google Calendar* is an online calendar that teachers can use to set up appointments and reminders. *Google Scholar* is a search engine that allow students to research school literature that have reputable sources. When writing research papers students might question what a reliable source is and if they can include it in their paper, *Google Scholar* allows students to research consistent and current sources. Students can use advance search to determine what topic and year they want to choose from. *Google Docs* is a program that allows teachers to create spreadsheets and share documents. Teachers are limited on amount of time they have in the classroom by using *Google Doc*, teachers can save time by using a program that helps develop spreadsheets and share documents (Adams, 2008). *Google Earth* is a virtual Earth that allows students to study places, maps, and street views. *Google Earth* also, allows students to virtually see natural creations, such as oceans and mountains. Man-made creations are also seen on *Google Earth* such as bridges and national monuments. There are many lesson and activities teachers can incorporate *Google Earth* into their classroom (Danby, Davidson, Ekberg, Breathnach, & Thorpe, 2016). Google is full of resources for teachers to use in their classrooms.

Kahoot

A popular tool educator is using in their classroom is *Kahoot.* What is *Kahoot*? *Kahoot* is a free online educational game-creator. Teachers can create game-base quizzes, discussion boards, and surveys (Plump & LaRosa, 2017, p.152). Teachers can also choose from many free educational games to be incorporated in their lessons. Students can access *Kahoot* through

mobile devices, iPads, and tablets. *Kahoot* has been shown to help student motivation through the educational games. Also, *Kahoot* has supported student collaboration. Teachers can have students work in teams while using *Kahoot.* In May 2006 around twenty million users joined and used *Kahoot* (Plump & LaRosa, 2017). Students respond to *Kahoot* because of the interactive games, bright colors, and audio. As popular technological tools are available to teachers, they cannot stand alone. *Kahoot* and other resources can be used to add to teacher's lesson, but these resources do not replace the lesson (Plump & LaRosa, 2017).

Clicker System

One popular piece of technology that is seen in many classrooms today is the clicker system. The clicker system is a handheld device that the student uses to response to the teacher's questions. The answer to the students' question is then displayed for all students to see and compare answer without seeing each other's names. An overhead projector is used to display the clicker software on a screen (Blood & Gulchak, 2013). The clickers system allows students to answer anonymously. To implement in the classroom the teacher will assign each student with a clicker number to get the grading anonymous. There are many benefits of using the clicker system. With using the clicker system teachers can give immediate feedback to student responses. Since teachers can see immediate results from students, this allow teachers to evaluate if the students understood the concept being taught. Teachers can then present more information on this topic or reteach the lesson. The clicker system allows teachers to observe individual student progress and differentiate lesson based on student needs. Another benefit the clicker system brings to the classroom is all student assessment is done digitally and graded instantly. This system allows teachers to save money on paper and allows teachers more time with their

students then having to grade papers. One negative aspect of the clicker system is the initial cost of the system. School districts and teachers need to be aware of the cost (Blood & Gulchak, 2013). The cost of the clicker system does not outweigh all the positive benefits from the clicker system. When teachers implement the clicker system in their classroom student involvement increases. Student are given an allotted amount of time to think and answer the question. Student progress in the classroom has shown to increase when teachers implement the clicker system (Blood & Gulchak, 2013).

Technology and Students with Disabilities

Some students may not learn in the traditional classroom. When technology in the classroom is implemented correctly, students connect to the digital resources (Hicks, 2011). Technology has helped students with disabilities. Some teachers have used technology with students with disabilities by adding them into their daily lessons. When teachers add technological resources to help these students, the students gained cognitive and physical skills, (Hicks, 2011). Technology can offer tools that can help make normal tasks easier for these students. Technology in the classroom has allowed students with disabilities to interact more with other students and participate in the classroom. Also, technology in the classroom has shown to help students with disabilities to comprehend more of their studies, build their vocabulary, and focus more in the classroom (Sulaimani, 2017). The next section will explain how the implementation of technology in the classroom may help students with disabilities.

Assistive Technology

As more inclusive classroom is the norm, more students with disabilities stay in the regular classroom. As more students with disabilities are placed in the regular classroom, these

students require some form of assistive technology (Hasselbring & Bausch, 2006). The form of assistive technology provided can differ greatly. Assistive technology used in the classroom can range from different software to help students with dyslexia, to assistive technology that helps students read and write, and lastly to voice recorders. There are great benefits of using assistive technology to help these students. With the use of assistive technology students with disabilities are getting the same resource available to them as a regular student would (Hasselbring & Bausch, 2006). Some teachers argue that students with disabilities rely too much on assistive technology. For assistive technology to work properly teachers must be trained how to use the technology, and the school district must be aware of the cost and funding for these products. Many students with disabilities do not get enough resources needed due to lack of funding. Teachers and school districts need to research funding available for students with disabilities that required the aide of assistive technology (Maich & Hall, 2016).

Assistive technology can allow students with disabilities overcome the hardship of everyday task in the classroom (Ahmed, 2018). The goal of most teachers that have students with disabilities is for their student to become more independent and to succeed in the regular classroom. Most classes are now inclusive, students with disabilities in the regular classroom. Teachers are using technology in the classroom to help students with disabilities become more independent. Assistive technology can help teach student how to complete necessities such as feeding, dressing, and toileting. Basic needs that most people take advantage of. Students with disabilities need more assistance than just being told how to accomplish a task. Video modeling and video prompting has been the most successful in helping students with disabilities (Norman, Collins, & Schuster 2001).

Sheply, Lane, and Gast (2016) research using computer assisted devices and a SMART board to help teach students with disabilities sight words. The computer assisted devices use the program power-point and response prompting program to display the sight words (Coleman, Hurley, & Cihak, 2012, p.405). A SMART board is an interactive touch screen much like the interactive white board that were discussed earlier in the paper. A SMART board has many of the same benefits and concepts of an interactive white board. Sheply et al., (2016) investigation how three students in early-education classes with disabilities could benefit from using a SMART board to teach sight words. There has been less research done with students in early education with the use of SMART board technology. Two of the three student's teacher worked to help teach the students sight words during the study. These students knew little to none sight words, and never worked in a group setting. The teacher presented the sight words on the SMART board and used prompting to help the students with disabilities. At the end of the study each student who knew little to none sight words, each student could read more sight words. Another outcome of the study showed that these students worked better outside of the group setting (Sheply et al., 2016).

Some teachers argue that students with disabilities rely too much on assistive technology. These teachers believe that the student with a disability uses assistive technology as a crutch. These same teachers believe the student will not try or work as hard as other students. When used correctly students with disabilities can participate more in the classroom, become more independent in daily task, and communicate more their classmates and teachers. The benefits that assistive technology can have on students with disabilities outweigh this belief. Also, the research that has been done to show how beneficial technology is to help assist students with

disabilities is overwhelming, compared to the research that technology hinders these students (Hasselbring & Bausch, 2006).

Mobile Technology

Rodriquez, Stradova, and Cummings (2013) discuss how mobile technology can help students with disabilities. It has been shown than half of teachers today used more than 25% of mobile technology in their classroom (Rodriguez, Stradova, & Cummings, 2013). There are many different apps that can help students with writing and communication skills. Some students with disabilities have a hard time communicating with teachers and other students. Technology in the classroom has helped these students communicate more. Mobile technology has been used to help these students communicate with others. Students can type on these devices and use pictures and to help communicate with teachers and other students (Sulaimani, 2017). One benefit Rodriguez et al. (2013) discuss in the article is how mobile technology in the classroom can be modified for each student. Mobile devices are being used to help students with many different learning disabilities. One point the authors make about the use of technology in the classroom is that many students, teachers, and parents already have mobile devices. Since many of the students already have these devices, they can access these devices at home. Technology looks different for every classroom. One teacher mentions the most important piece of technology that she uses is the internet. Students can use the internet to find the most current information on most topics. Teachers can find games, lessons and quizzes all on interactive website for students. Teachers can use podcasts for students that have missed class or need extra assistance. Video Podcast is a great program where teachers can record themselves teaching a lesson and send to students (Boles, 2011).

Rodriquez et al. (2013) examine how technology may benefit students with verbal based disabilities. As part of a project thirty children used an app called *Language Builder* for thirty minutes four times a week. *Language Builder* is an app that helps teach students with disabilities basic language skills using picture noun cards. The overall findings of the study were that students who used the app had higher scores than students who did not use the app (Rodriguez et al., 2013). Another study by Strnadová, Cumming, & Marquez, (n.d.) investigated how mobile devices could benefit children with learning disabilities. Each student used iPads as part of their daily lesson plans according to their individual needs (Strnadová, Cumming, & Marquez, n.d.). One outcome using iPads with students who have disabilities showed student progress in communication skills (Rodriguez et al., 2013, p.246). The overall finding of all the studies in the article were teachers and parents were for implementing iPads in the classroom. Furthermore, using iPads in the classroom gave students independence, individualized learning opportunities, and motivation.

Technology Assisting Students with Autism

Mobile technology, such as an iPad, can help students with disabilities. One outcome of the study shows how the iPad teaches students with autism how to shift between school activities. This transition time for many autistic students is very difficult, and by adding iPad activities this transition can be easier for students. Another finding in the study was that the iPad was age appropriate for these students. The use of the iPad in the study allowed students to model math problems. The students in the study were found that by using the iPad, their math skills were increased (Rodriguez et al., 2013). Moore and Calvert (2000) research how implementing computers in the classroom helped teach students with autism vocabulary skills.

Fourteen students diagnose with autism were chosen at random to partake in this study. Moore and Calvert (2000) compared a behavior program to a software program. The goal of the study was to determine how using the computer to teach vocabulary skills benefited students with autism. The outcome of the study showed that the computer helped these students learn the vocabulary words and motivated the students to stay focus (Moore & Calvert, 2000). Sulaimani (2017) mentions one of the most difficult tasks for students with autism is to focus in the classroom. Technology in the classroom has shown to help students with autism focus more on their assignments. Furthermore, technology in the classroom has been found to help students with autism complete their assignments, and these students were able to complete these assignments independently (Sulaimani, 2017).

Technology and English Language Learners

Technology does not just help students with disabilities but students who are learning English as a second language (ESL). The device that most teachers used to help students with ESL students is mobile devices. The next section will discuss the different ways that technology can help English as a second language students.

In the last ten years the amount of English as a Second Language (ESL) students in the United States has increased greatly (Elena, 2019). Some technology might not be available to ESL students therefore teachers have to adjust accordingly (Elena, 2019). Rodriguez et al., (2013) tell how students who are studying English as a second language are using iPads to help them. The iPad lets students hear how to correctly pronounce the words. Students than record themselves saying the words in English, and then the student listens to the recording. Teachers ask students to record themselves at home, to avoid any student being embarrassed to read aloud.

The teacher would then listen to the recording and give the student feedback. (Rodriguez et al., 2013).

Teachers can help connect with parents of ESL students using technology. Many parents of ESL student speak little to non-English. Teachers can use the same apps they are sharing with their students to communicate with parents. One program that has been used to help ESL students is *Google Translate. Google Translate* is a program that translate words and phrase from over one-hundred languages to English (Elena, 2019). Many students used *Google Translate* to write in their native language and then have the program translate it to English. There are other translating applications and programs that can help ESL students. One disadvantage of translating programs is not every word is correctly change, therefore teachers need to be aware and assist when needed. Many students have mobile devices that have apps that can help students translate words into English. One teacher discussed how YouTube can help ESL students by having books in their native language (Ahmed & Nasser, 2015). Teachers can buy books and cd's in students' native language, but these resources are usually costly and limited. Elena (2019) found in observing one ESL class that listening to music on mobile device helped students concentrate. Students would listen to music in while working on assignments. The student usually would select music in their native language (Elena, 2019).

Students can also use technology in the classroom to team up with students who speak their native tongue to improve their language skills. A few online websites that were used to help teach English to students were *Prezi*, *Glogster*, *Edmodo*, and *Toondoo*. *Prezi* is an application that allows students to create and present different information through graphics, tables, and video. *Glogster* can help students create reports using technology, such as videos and graphics.

Edmodo is one-way students can connect to other peers by reviewing classwork or discussing topics in the classroom online. *Toondoo* is where students can create cartoon stories. All these online resources can help teachers find a more creative way to teach English to their students (Fatimah & Santiana, 2017).

Lacina (2008) also mentions how the use of iPods in the classroom has been found to be successful in helping ESL students. An iPod is a handheld device that has access to internet, apps, and email. ESL students can use iPods at school and at home to study vocabulary and learn new words. Likewise, iPods are more affordable then computers. An advantage of using a handheld device is convenience, students can use iPods at school and at home. Students can practice their English at home as well as the classroom. Parents of ESL students could take advantage of iPods at home too. Many parents of ESL students have the desire to better communicate with their child's teacher. Parents could use the iPod to practice their English and learn new vocabulary words. To make sure students are using iPods at home, teachers can have parents sign take home sheets. Teachers need to make sure students are bringing iPods back to class, teachers can keep track of iPods through a chart. Every time students bring back their iPods to class the teacher can mark a check or sticker next to their name. This gives students an incentive to bring back their iPods to class. Another advantage of iPods is the amount of storage available, teachers can download lessons, vocabulary apps, and educational games. Teachers can download audio books for ESL students to help them practice English (Maldonado & Morgan, 2010). Also, iPods are a tool that help students stay engage in the classroom. Classroom behavior has decreased since students are more motivated in class. This allows more time for teachers to help students. Teachers can spend more one-on-one time assisting English as a second language

students. Lacina (2008) found that iPods have been used to motivate students in the classroom. When students use iPods in the classroom, they are no longer looking at the assignment as work but as a fun activity.

Virtual Technology

The next sections will discuss the possible benefits of virtual technology. Virtual technology has recently become more popular in and out of the classroom. Virtual technology has been offering students with disabilities different solutions than the traditional classroom. Students are increasingly enrolling in online virtual classes (Gosmire & Grady, 2007). Also, teachers are using virtual technology by setting up virtual coaching to help with classroom management (Rock, Schoenfeld, Zigmond, Gable, Gregg, Ploessl, & Salter, 2013). Lastly, teachers are using virtual learning as a tool for students to take virtual field trips they elsewise would not get to take (Kirchen, 2011).

Virtual Classroom

Technology in the classroom can help many students with different individual needs. One statistic done by the U.S Department of Education projected that around 328,000 students are registered in an online virtual learning class (Gosmire & Grady, 2007). Around fifty-three percent of students in public school are registered in online courses (Marteney & Bernadowski, 2016). Many parents who have children with learning disabilities are choosing to switch from public schools to online virtual learning. Murphy, Rodrıguez-Manzanares, & Barbour, (2011) mention how parents are choosing online learning because their children with disabilities can learn at their own pace, and online learning is meeting their educational needs that the public school was not meeting. The number of students with disabilities enrolled in virtual classes are

extremely high. What do virtual classes look like? Virtual classes are an online educational program that offer students full-time or additional lessons that are equivalent to the traditional classroom. Additional support that virtual classes offer are interactive programs, online tutoring, and educational videos. As students can work at their own pace if the student does not fully understand a concept, the student can complete the lesson until they fully understand the concept (Murphy et al., 2011). Virtual learning and the traditional classroom have many things in common. Like the traditional classroom teachers, administrators, and guidance counselors are all staff members of the virtual classroom. In most virtual learning courses, a staff member is assigned to different students to help track progress and help with any concerns of the student or parent (Repetto, Cavanaugh, Wayer, & Feng, 2010). There have been positive benefits from virtual classroom, such as students working at their own pace, additional support from teachers, and individual lessons for students (Marteney & Bernadowski, 2016).

Virtual Coaching

Many teachers have difficulty implementing effective classroom management skills into their classrooms. Many new teachers express they do not feel fully prepare to take on their own classrooms. As many new teachers graduate from college, many are unprepared to handle classroom behavior issues. Many season teachers mention the only way for new teachers to implement effective classroom management skills is through experience. Virtual coaching through Skype is allowing teachers to receive classroom management assistance (Rock, Schoenfeld, Zigmond, Gable, Gregg, Ploessl, & Salter, 2013). Many new and season teachers could benefit from virtual coaching. One example of virtual coaching in the classroom describes how one student began having a melt-down in class and the teacher was unsure how to handle

the situation. The teacher with the student who was having a meltdown Skype a university instructor, as the teacher was in a master program at the time. The university instructor helped instruct the teacher to get the situation under control (Rock et al., 2013). For virtual coaching to be successful the coaches must recommend classroom behavior strategies that are effective and easy for teachers to implement. Teachers can benefit greatly from virtual coaches. Virtual coaching can help new teacher build confidence in their classroom. Virtual coaching does not have to be limited to just helping teachers with classroom management strategies. Virtual coaching can give new teachers tips on planning lessons, interacting with parents, and using technology in the classroom. The uses of virtual coaching are endless. Virtual coaching is a relative new technology and there is still much research to be done (Gallucci,Van Lare, Yoon, & Boatrigbt, 2010).

Virtual Field Trips

Virtual field trips are allowing students explore places they would usually never be able to visit. What are virtual field trips (VFT)? Virtual field trips are a technology-based experience that allows students to visit without leaving the classroom (Kirchen, 2011, p.22). Virtual field trips can consist of videos, photos, audio, and text. Cox & Su (2004) mention while virtual field trips do not replace real field trips, it exposes students to places they usually cannot visit. Teachers can have students explore different countries by using virtual field trips. If a teacher has a unit about the solar system teachers can have students take a virtual field trip there. Students can observe videos of the planets, study pictures of the stars, and watch an interview with Neil Armstrong on their virtual field trip. Teachers can create VFT for their own classroom, like the one example of the virtual field trip to space. This allow teachers to keep in mind the likes and

dislike of their students, or teachers can use already made virtual field trip programs. If the teacher is using an already made virtual field trip program, teachers need to make sure they are creditable. Teachers need to plan virtual field trips ahead of time to make sure they are age appropriate and be able to answer any questions students may have about the VFT (Kirchen, 2011). Teachers are using virtual field trips because some field trips are too costly, safety issues, and feasibility of some field trips are not possible. For example, students may not be able to visit a factory due to safety reasons but a VFT can bring the factory to the students. Many school districts do not have the funds available for actual field trips (Kirchen, 2011). Teachers may want to incorporate other countries cultural into their lesson and can do so by a virtual field trip. Virtual field trips should not replace the lesson but should be integrated into the lesson already developed by the teacher (Kirchen, 2011). Teachers can include hands-on activities with virtual field trips. Teachers can make available books, crafts, and videos to help enhance VFT. There are a few drawbacks to VFT. Teachers must prepare and be knowledgeable about the virtual field trips taking place, technology must be available to these teachers, and VFT cannot replace real fieldtrips. However, virtual field trips can expand students' knowledge of places, and allow students to virtually visit places typically unavailable to them (Kirchen, 2011).

Video Conferencing Technology

Video conferencing is becoming widespread in classrooms today. What is video conferencing? Video conferencing is a web-based system that allow people around the world to

communicate by seeing and hearing each other on a screen ("Video conferencing definition," n.d.). Video conferencing can be very beneficial in the classroom.

One school was successful in bringing a home-bound middle school student to their classroom through video conferencing (Beeman & Henderson, 2012). Many home-bound students must miss school due to illnesses and medical conditions. Video conferencing technology helped one middle school boy be a part of his class. In some cases, video conferencing would not be accessible for every student. In this case study the school, parents, teacher, and district were all onboard for the video conferencing. Many hours of preparation and training was done before the video conferencing was started. There are added cost that the district and school had to keep in mind, and the equipment for the video conferencing was one of them. In this study an at home tutor was assigned to the student to help the student with homework and time away from video conferencing. The student was able to participate in the classroom in real time. Teachers spent many hours of training to set up the video conferencing and to make it a success. A few concerns that the teachers and staff had was if the student would be able to keep up with his assignments. The student adjusted to the virtual classroom with ease. There were many benefits from the case study from using the video conferencing technology. The student felt involved and was able to interact with his peers an important part of his teenage years (Beeman & Henderson, 2012).

Another benefit of video conferencing is being able to communicate with other professionals. Teachers are using a video conferencing program called Skype to bring authors to their classroom through technology. Many school districts no longer have the funds to pay authors to visit classes, and most authors no longer have the time to make these visits (Messner,

2010). Skyping allows author to visit the classroom via web without all the added cost and time it takes to travel to different schools. Messner (2010) discuss how the cost of a virtual visit through Skype ranges from free to three-hundred dollars. Many authors will do a virtual interview for free for students who have read their books. Teachers can visit many authors' webpages to find more information about their fee and availability to set up a virtual interview (Messner, 2010). To make it possible to bring authors to the classroom, teachers must be knowledgeable of Skype technology. A few suggestions to get the most out of a Skype visit from an author, is to have the students read the authors work in advance, limit number of students Skyping at a time, and have students create questions for the author ahead of time.

Impact of Technology in the Classroom

Most teachers believe that technology has a positive impact in the classroom and on students. Mobile technology has impacted the classroom a great deal. Many teachers believe that for students to become successful adults they need to learn how to use technology. Most jobs require some use of technology, and students must be able to properly use technology. Teachers have access to research how mobile technology can help students with disabilities to allowing unlimited access of information. One impact that mobile technology has brought to the classroom is cooperative learning (Murphy, 2011, p.22). Students are encouraged to work together, and technology has allowed students to discuss their findings with others online. Teachers encourage cooperative learning in the classroom (Domingo & Garganté, 2016). Ertmer (2005) writes how teachers who believes in the use of technology to be beneficial have been known to implement technology more in their own classroom. Another finding showed that teachers with experience using technology encourage the use of technology in their classroom

(Miranda & Russell 2012). The authors mention that even though this process is difficult and at times slow, teachers must accept the use of technology in their classrooms. The authors tell how important it is to equip students with the essential skills for adulthood using technology. Most jobs today require students to be well diverse in different aspects of technology. One-way teachers can incorporate technology in the classroom is to include technological-based activities to enhance materials presented in the textbook. When teachers are implementing technology in the classroom, researchers do not suggest teachers take away textbooks and writing assignments just to develop the lesson (Ahmed & Nasser, 2015).

Implementing Technology Correctly

Ahmed and Nasser (2015) discussed how implementing technology in the classroom is not an easy process. Miranda and Russell (2015) found that ninety-seven percent of schools have high speed internet connections. Schools that have ninety-seven percent internet access the implementation goes faster and easier. However, the three percent without high speed internet the implementation of technology in the classroom is slower and more challenging for teachers.

As technology becomes more and more prominent in the classroom teachers need to know who to look at to help properly implement technology in the classroom. Many teachers try to implement technology in their classroom and fail. Principals need to help teachers implement technology in the classroom by promoting and modeling what is expected from the teacher. As the principal sets a vision of how technology is going to look in their school, teachers can properly carry this vision out. Principals need to up to date with new technologies, so they can help model these technologies to teachers. There are a few suggestions to help teachers implement technology correctly in the classroom. Teachers need to be properly trained in using

the technology provided for them. Professional Development Days can help train teachers on how to use technology. Not only do PD Days benefit teachers but principal need training as well. If the principal is the one teacher's look to for assistance in implementing technology, principals must be properly trained (Dogan & Almus, 2014). If the principal believes technology in the classroom is important then their teachers will have this same belief. School districts and teachers need to believe technology in the classroom is important. Teachers who believe technology in the classroom is important, will put more time and effort into implementing technology correctly in the classroom.

School districts need to put in place IT personal if technology need to be fixed or properly train teachers to fix technological issues. School districts need a technology committee made up of teachers, parents, and IT personal. The committee comes up with a technological plan based on the principal's vision. The principal will oversee the committee and make sure the plan follows state regulations. The committee must work together as a team to make sure the technology plan is successful (Gosmire & Grady, 2007).

For teachers to make technology appealing for students it has be presented as "challenging and solvable," (Willingham, 2009, p.24). Teachers need to make sure the technology they choose to incorporate in their classroom is age appropriate for their students. Some student may feel that the technology selected is confusing if not chosen correctly. When choosing apps or programs teachers need to choose the best one suited for their individual students. Teachers can join online teacher communities, this can help give teachers examples of how other incorporate technology in their classrooms (Willingham, 2009) Technology in the classroom is beneficial to both students and teachers.

The Rodriguez et al., (2013) tell of the benefits of using mobile devices in the classroom but warn teachers they must plan how to implement technology in the classroom correctly. A few recommendations the authors have for teachers to correctly implement technology in the classroom are, teachers must plan of time, teachers need be knowledgeable of the technology used, and teachers need to communicate with parents (Rodriguez et al., 2013). Also, teachers must assign rules on when and how students can use technology in the classroom. Teachers need to present these rules before they allow technology in the classroom. Students will then know what to expect before using any devices. Also, teachers must discuss internet safety with their students. Most schools block many social media sites such as Facebook and Myspace. There is no way to for teachers to monitor every student, but these rules can help. Teachers must set high expectations for their students that they will make smart choices online. Many school districts use Facebook to inform the community about upcoming events and school information. But many times, these pages are controlled by parent volunteers. Some school club pages are even controlled by students. School districts need to make sure all these pages are supervised by either an advisor or principals (Flaherty, 2013).

Conclusion

Technology in the classroom has made a great impact on students and teachers today. For students to become successful adults, they must be able to properly use technology. Most jobs require the use of technology and for students to succeed in their future careers, technology must be implemented in the classroom. New resources have allowed teachers to assist students in many ways from helping students with disabilities to English as a second language students (Ahmed, 2018). Technology has allowed students with disabilities to become more independent,

participate more in the classroom, and communicate better (Rodriguez et al.,2013) Also, technology in the classroom has allowed ESL students to be able to communicate better in the classroom. Teachers can communicate more with the parents of ESL as well (Elena, 2019). With all the technology available to teachers, there is still hesitation on implementing technology in the classroom. When teachers receive the proper training and support from their school district, more teachers will incorporate technology in their lessons (Hicks, 2011). Principals must support the use of technology in the classroom for teachers to be successful in implementing technology. When the principal sets a vision of what technology looks like teachers can carry out this vision (Dogan & Almus, 2014). Teachers can write grants for technology in their classroom, and students are able to use their own mobile devices to save on technology expenses. There have been many benefits seen from using technology in the classroom. A few benefits are changing from a teacher-centered classroom to a student-centered classroom, student motivation, and student collaboration (Tiene & Luft, 2001). As there are benefits to using technology in the classroom, there are also concerns about incorporating technology in the classroom. A few concerns that some teachers have is cyber bullying and cheating. When teachers implement technology correct, students know what to expectations teachers have of them. As teachers set rules and expectations for their students, students will use technology properly. Many new technological resources have become popular in the classroom, such as interactive whiteboards, e-books, iPads and apps, QR codes, Google technology, and the clicker system. Each of these resources have been used to help student improvement in the classroom. Virtual technology and video conferencing have become very useful in the classroom today. Student can virtually go places they would never get to go before (Kirchen, 2011). Recent teachers can receive virtual

coaching to get tips on how to handle classroom management issues (Rock et al., 2013). There are many ways teachers can use technology to help with classroom management skills. Some technology that teachers have been implementing to help with classroom management is class dojo and showing students to self-monitor their behavior through technological tools (Garcia et al., 2015). Teachers should implement technology in the classroom for the many benefits technology has to offer.

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