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Instructional Technology is a Vital Tool in Today's Classroom

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Instructional Technology is a Vital Tool in Today's Classroom

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Table of Contents:

Introduction

For my project, I am going to be talking about instructional technology. Before being in the program I was once an elementary education major and I thought that technology in the classroom had served a major role in today's education. According to the Association for Educational Communications and Technology: "Instructional technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning." Instructional technology is important in today's classroom because it gives students another way to learn and comprehend ideas in learning about different topics. If I decide to go back to elementary education to finish my degree, I want to express how vital using technology in the classroom today is. I hope from this project I learn the different websites, ideas, teaching strategies, programs and how to help the students use technology to further their education rather than hinder them from learning. Going through this project, I will be discussing items such as: What are the standards for using Instructional Technology? What are teacher's opinions and experiences while using Instructional Technology in the Elementary Classroom? Why is it important to develop their technology skills? And what are different types of Instructional Technology?

Instructional Technology Standards

The International Society for Technology in Education (ISTE) standards for educators are the path to help students to become successful learners inside the classroom. The ISTE used to be known as the NETS or The National Educational Technology Standards. The first set of standards were released in 1998 for the students and the standards for educators were released in 2000. In 2007, the ISTE standards were examined and modified for students. A year later, the ISTE standards were reevaluated and altered for educators. Here recently in 2015 and in June 2016 they were once again under evaluation and revised for students. In June 2017, an update to the ISTE standards for administrators was launched.

ISTE Standards

Standard	Summary	Why is it important
ISTE 1. Facilitate and inspire student learning and creativity	Teachers use their knowledge and skills to facilitate learning in their classroom.	This is important so the students can learn from the teachers past experiences to help shape their future.
ISTE 2. Design and develop digital age learning experience and assessments	Teachers develop a learning environment that maximizes content learning to help develop the knowledge and skills identified in the standards.	This is important so students can feel comfortable in their learning environment.

ISTE 3. Model digital age work and learning	Teachers are up to date on use of technology and fluently incorporate it properly into their classrooms.	This is important so teachers can properly teach students how to use technology the correct way.
ISTE 4. Promote and model digital citizenship and responsibility	Teachers are to be up to date on local and global issues as well as keep their social media life ethical and professional.	This is important so you can help students digest what is going on in the world as well as setting a good example for students to follow so they aren't cyber bullies.
ISTE 5. Engage in professional growth and leadership	Teachers will continue going to professional leadership trainings and participate in continual learning.	This is important so teachers will never stop learning and stay up to date on societal changes through technology.

Kentucky Teacher Standards

The Kentucky Teacher Standards hold the schools and districts accountable for ensuring curriculum align across grade levels and districts. Standard Six is the standard that talks about how technology is used in the classroom. The teacher uses technology efficiently when it supports instruction, makes data access easier as well as conducting research, enhances productivity and increases successful communication with colleagues, parents and the community. The teachers have to address all the standards because they are required by law.

Standard 6: The Teacher Demonstrates the Implementation of Technology

Standard	Summary	Why it is important
6.1 Uses available technology to design and plan instruction	Teachers will use appropriate technology for their lesson plans.	This is important because it allows teachers to relate to their students using technology in the classroom as technology develops more.
6.2 Uses available technology to implement instruction that facilitates student learning	Teachers will use research based and technology infused lessons to support the learning of all students.	This is important because teachers having researched based and technology infused lessons it allows them to support multiple types of kids in the classroom.
6.3 Integrates student use of available technology into instruction	Teachers will use and related technology into the lesson.	This is important because it allows teachers to incorporate technology into their lessons that most students already have on hand.
6.4 Uses available technology to assess and communicate student learning	Teachers should use technology to encourage student communication and assessment.	This is important because students already have a lot of technology at hand and teaching them to become effective communicators and assessment takers via technology is important.
6.5 Demonstrates ethical and legal use of technology	Teachers should maintain a safe, secure and equitable learning environment that promotes proper use of technology.	This is important because providing a safe secure environment that promotes learning is extremely important in student learning.

Comparing and Contrasting the ISTE standards and The Kentucky Teacher Standards

Both sets of standards have ways of making sure that technology is successfully implemented in the classroom. They both aim to make the student most successful in the curriculum by using technology as a tool alongside the standard course. The Kentucky Teacher Standards make sure that the students have technology integrated in the classroom through the teacher's lesson plans. The KTS ensure that the teacher uses the technology a certain amount of the day and in certain parts of their lesson. The ISTE standards on the other hand are the standards that make sure that the teachers are properly trained and update on the current technology. The ISTE standards also hold educators accountable in the way they integrate technology in the classroom. Between these two standards it creates a set of guidelines for teachers to follow when integrating technology and sets the teachers up to be able to successful integrate technology in their daily lessons.

Technology integration in the classroom allows teachers to successfully teach all their students even though their students may be on all different levels. For example, having technology in the classroom allows a teacher to better accommodate a student who has a 504 plan because they broke their arm and now write slowly. This would allow the teacher to pull up the PowerPoint on the IPad for the student to then copy the notes at their own pace, as well as for the student to complete their work. Another way teachers successfully use both standards is by asking which technological tools will help them meet their goals for each lesson and will best support their students' learning. By asking this it allows the teacher to take a look at the standards for technology and think about how and why they want technology to get this point across in their lesson. As a future educator, it is important to take these standards for technology

integration and adapt them to my class because in this day and age technology is ever growing. Thus, educators need to teach students the proper and safe way to use technology.

Review of Literature

I reviewed 10 scholarly, peer reviewed articles of instructional technology in the classroom. In these articles, I found common themes of technology integration, specific technological programs, technology in the reading classroom, and obstacles in technology integration in the classroom. In the article "Technology Integration in the 21st Century" the authors talk about how technology can help the teachers plan using TPACK, otherwise known as Technological Pedagogical Content Knowledge. TPACK allows teachers to expand on concepts in the classroom that include technological knowledge that teachers need to integrate digital tools effectively. Teachers that use TPACK have things in common such as they consider the socially situated nature of learning when planning instruction. Teachers can also use TPACK to create communities with technology in their classroom that can expand out into the homes and community. (Shinas & Steckel , 2017)

In the article "Teachers Review of Technology in their Reading Lessons", they talk about how they used technology in their reading lessons. Technology is a part of everyday life that can help children increase their reading and writing skills inside and outside of the classroom. As literacy demands increase, the International Reading Association and National Council of Teachers of English recommend that technology is integrated into the classroom so that way the children can be prepared for 21st century literacy demands (Mcdermott & Gormley, 2015). McDermott and Gormley also talk about how important technology is in helping students reach the literacy demands. Haihong Hu, Mary Oslick, and Donna Wake talk about how web 2.0 technology helps readers who are struggling. These two articles complement each other very

well because they both say that technology in the reading classrooms is imperative to helping students be 21st century learning ready. The term web 2.0 refers to technology where users can create, edit and discuss content through a social and collaborative use of internet. (Hu, Oslick & Wake 2017) This helps struggling readers improve because they have peer collaboration on reading assignments instead of one on one teacher instruction. This is helpful to them because they are less embarrassed about a peer helping them, rather than the teacher helping them especially in the older elementary classes. (Hu, Oslick & Wake 2017)

The article "Obstacles for teachers to integrate technology with instruction" talks about some issues and obstacles that come with technology integration. While the author compliments the use of technology to help in the classroom he also says there are some struggles, like students not staying on task and teachers not being properly trained in the use of it. While these don't seem like major obstacles, they are issues that teachers need to be aware of with technology integration. Overall, technology usage is very beneficial to the student there are some obstacles teachers will have to adapt too with this technology integration. Technology should be integrated in education despite the few obstacles there are (Alenezi, 2016).

The other six articles I read all talk about and agree that technology integration is beneficial and should be used to help students and teachers. Another thing the articles mention is that with technology being integrated, it allows parents to be involved in the classrooms of their students' lives at school. These articles talk about how technology integration makes planning in the classroom easier for the teachers to be able share the materials, lessons, and assignments with the parents. There are many websites and applications that teachers can utilize to make technology integration in the classroom successful. I will talk about some of these websites and

applications later in my paper. Technology is a very helpful thing in the classroom that should be utilized as frequently as possible.

Technology Survey and Interviews

To gather information about instructional technology I created a survey with 10 questions that talked about using technology in the classroom and I also interview three professors at the college level here at Murray State. I then sent the survey out to all the teachers at the following schools; Southwest Calloway County Elementary, North Calloway County Elementary, East Calloway County Elementary and Murray Independent Elementary Schools. The principals at these schools agreed to me giving the survey to their educators and sent it out on October 9th, 2017.

Survey Questions

I decided the best way to design and conduct my survey would be through Survey Monkey. Survey Monkey is a free program online where teachers can design and conduct surveys by sending out the link after they create the survey however they want to set it up. I chose the basic format of the survey template and chose to email the teachers with my survey link for them to complete. Once I got permission from my advisor and the principals of the elementary schools in the Murray/Calloway County area, I sent them the survey via email.

To create the survey, my advisor and I had a meeting and discussed possible questions, over instructional technology in the classroom. We drew from prior knowledge I had when I took technology classes while I was in elementary education. One class I took was Introduction to Instructional Technology, Dr. Stephanie Hendrith. In this class, we talked about different types of applications that teachers can use in their classroom to help their kids learn. She was very helpful with helping students find different websites so in the future, we will be able to use them

as we can implement those websites into our lesson planning. In another class, we briefly went

over technology but not as much because we talked more about evaluation in elementary

education. That class was taught by Dr. Dusty Reed, who is one of the professors that I have

interviewed for this project as well. She briefly went over different applications where we can

evaluate student learning.

I had given the teachers whom I had sent the survey two weeks to complete it. I got a lot

of responses back. I understand that they have busy schedules, but I appreciated the responses

that I received back from the survey. Some of the teachers emailed me back giving me

compliments about how well the survey was constructed. The instructions for my survey were on

a scale of one to five, with five being the highest. Teachers rated their effectiveness in using

instructional technology in their elementary classroom. This is how my survey looked on Survey

Monkey:

1. Uses available technology to design and plan instruction (KTS 6.1)
- 1
- 2
- 3
- 4
- 5

2. Uses available technology to implement instruction that facilitates student learning (KTS 6.2)
- 1
- 2
- 3
- 4
- 5

0 of 10 answered

My survey questions and results:

1. Uses available technology to design and plan instruction (KTS 6.1)
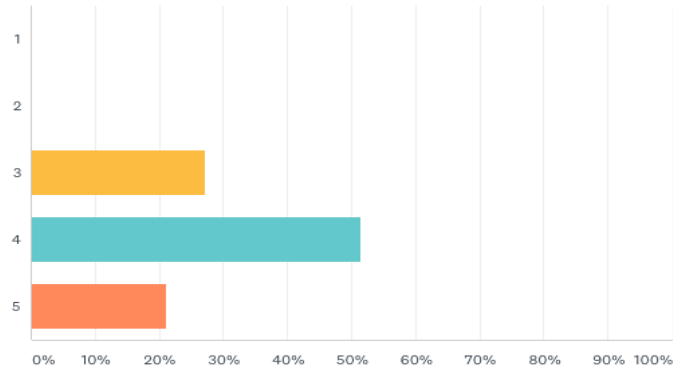
ANSWER CHOICES	RESPONSES	
1	0.00%	0
2	0.00%	0
3	27.27%	9
4	51.52%	17
5	21.21%	7
TOTAL		33

The 51.52% of the teachers who took my survey feel like they use technology to design and plan instruction about 80% of the time. The other 48.48% of the teachers were divided. Teachers said they use the technology to plan at a rate of 60%. The other 21.21% of teachers said that they 100% use technology to plan instruction. Looking at this, almost all the teachers use about 80% of the technology made available to them to plan and design their instruction.

2. Uses available technology to implement instruction that facilitates student learning (KTS 6.2)
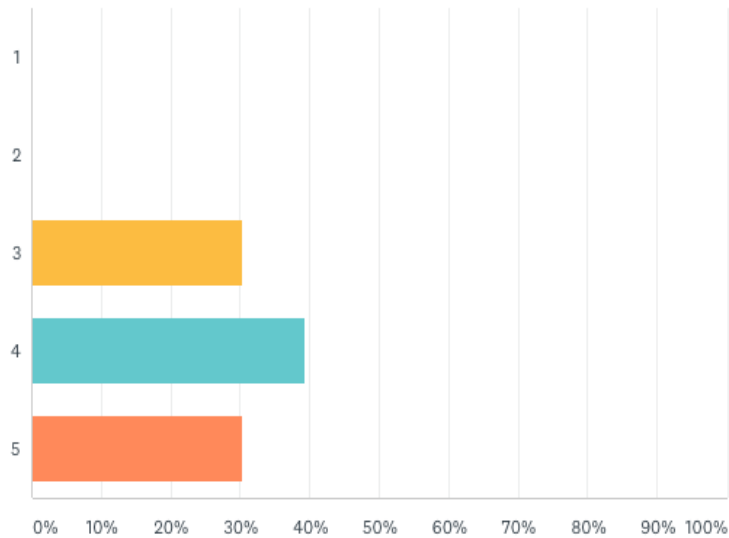
ANSWER CHOICES	RESPONSES	
1	0.00%	0
2	0.00%	0
3	30.30%	10
4	39.39%	13
5	30.30%	10
TOTAL		33

Of the 33 teachers who took my survey, 60-100% said that they used available technology to have instruction that facilitated student learning. 30.30% of the teachers said that they were 60% effective. 39.39% of the teachers said they were 80% effective and the last 30.30% said that they were 100% effective at ensuring the technology they were using facilitated student learning.

3. Integrates student use of available technology into instruction (KTS 6.3)
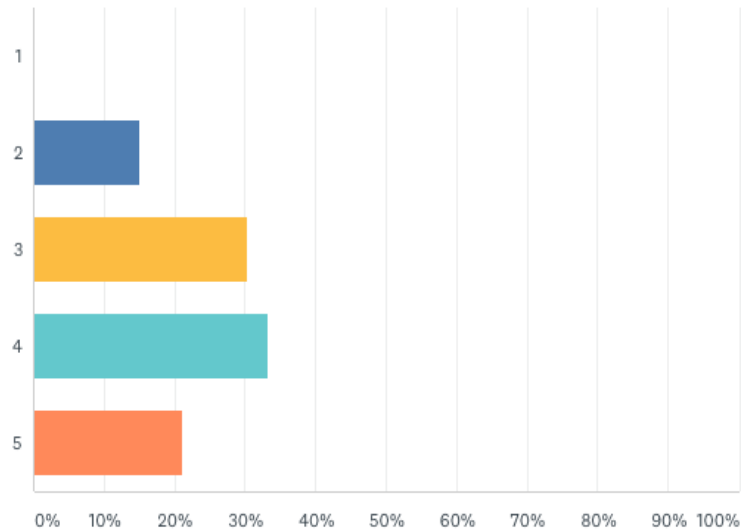
ANSWER CHOICES	RESPONSES	
▾ 1	0.00%	0
▾ 2	15.15%	5
▾ 3	30.30%	10
▾ 4	33.33%	11
▾ 5	21.21%	7
TOTAL		33

The responses to this question were interesting because the responses were more spread out. It really showed how much teachers talk about having technology integrated in the classroom for student use and it shows how little the teachers actually do it. 15.15% of the teachers surveyed said they only integrated technology for student use into instruction 40% of the time. 40% is a low number if you consider how important technology in the classroom is becoming. This needs to be looked at and considered because technology is going to continue to grow and we are going to have to integrate technology as the time goes on.

4. Uses available technology to assess and communicate student learning (KTS 6.4)
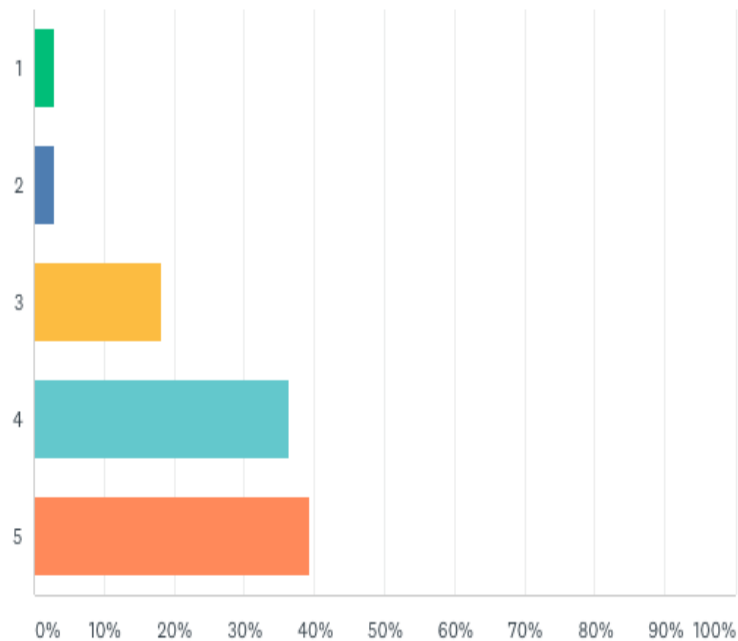
ANSWER CHOICES	RESPONSES	
▾ 1	3.03%	1
▾ 2	3.03%	1
▾ 3	18.18%	6
▾ 4	36.36%	12
▾ 5	39.39%	13
TOTAL		33

It's interesting that about 6% of the teachers use technology for assessment and communication for student learning at or below 40% of the time. It's valuable that 39.39% of the teachers use the available technology in the schools for assessment and communication of student learning.

5. Demonstrates ethical and legal use of technology (KTS 6.5)
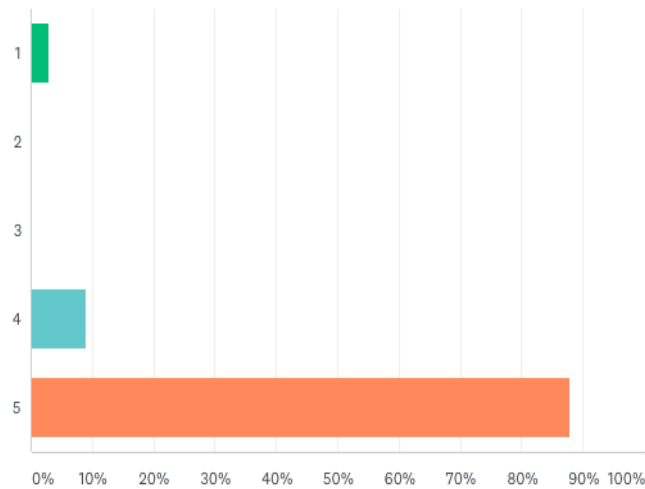
ANSWER CHOICES	RESPONSES	
▼ 1	3.03%	1
▼ 2	0.00%	0
▼ 3	0.00%	0
▼ 4	9.09%	3
▼ 5	87.88%	29
TOTAL		33

These results were interesting because this standard focused on using technology ethically and legally. Teachers put that they use technology ethically and legally 20% of the time. I almost wonder if this was a mistake or if they thought that 1 was the highest and 5 was the lowest which would have been a flaw in my survey. Another thing fascinating about this is that almost all the other teachers except 3 which put they used it at 80% but the rest of the 29 teachers put that they used technology ethically and legally 100% of the time. This is what we should always aim to do is use technology legally and ethically 100% of the time and should teach our students to do.

6. Facilitate and inspire student learning and creativity (ISTE 1)
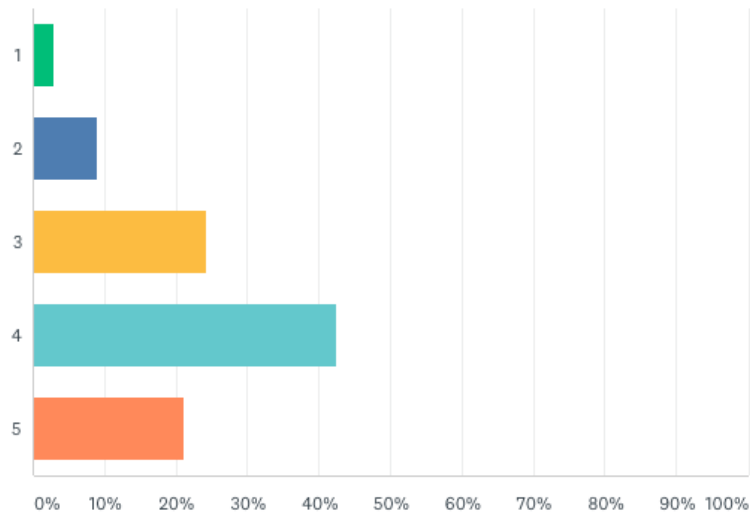
ANSWER CHOICES	RESPONSES	
▾ 1	3.03%	1
▾ 2	9.09%	3
▾ 3	24.24%	8
▾ 4	42.42%	14
▾ 5	21.21%	7
TOTAL		33

I found that these results were extremely spread out throughout the percentages but seeing this is a good thing because not all teachers are going to be able to use technology to the full extent to inspire the students learning and creativity. For example, a teacher who has been teaching for 40 years already may struggle with using the new technology that got put in their classroom. If the teacher struggles using the technology then the students are going to struggle to be inspired creatively in their learning. As technology evolves more and more it is going to become vital for teachers to be able to use the technology in order to effectively inspire student learning and creativity.

7. Design and develop digital age learning experience and assessments (ISTE 2)
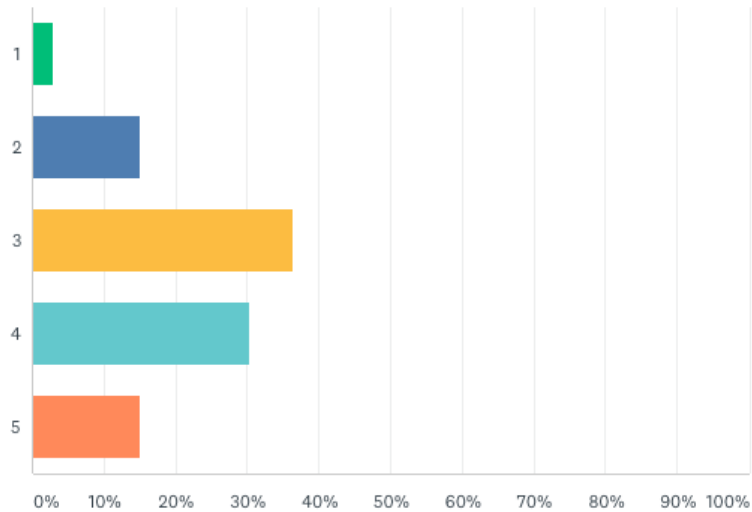
ANSWER CHOICES	RESPONSES	
▾ 1	3.03%	1
▾ 2	15.15%	5
▾ 3	36.36%	12
▾ 4	30.30%	10
▾ 5	15.15%	5
TOTAL		33

These results were averaged in the 60% -80% range and this is interesting because it shows that our current teachers aren't totally confident in their use of the new technology in the classrooms to assess the students and use it in their lessons. I think that these teachers know how to use the technology and use it correctly for assessment and student learning, but need more confidence. Something that may build their confidence would be to use the technology more for these things and work out the flaws and kinks.

8. Model digital age work and learning (ISTE 3)
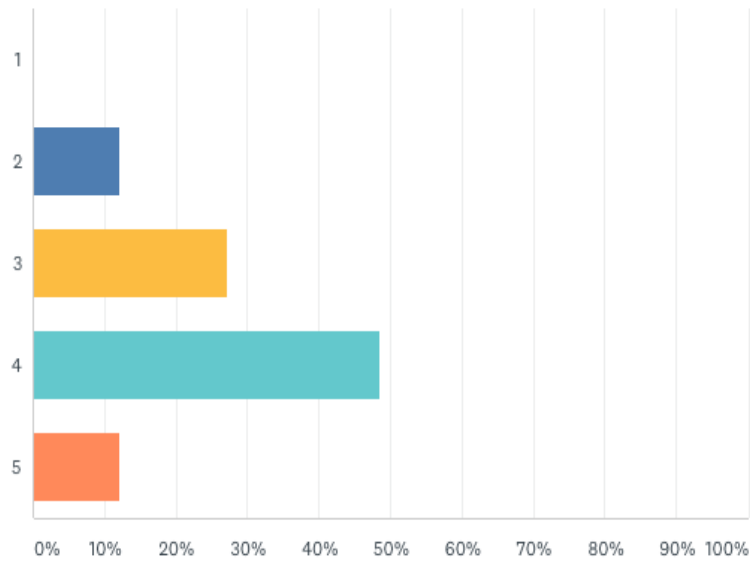
ANSWER CHOICES	RESPONSES	
▾ 1	0.00%	0
▾ 2	12.12%	4
▾ 3	27.27%	9
▾ 4	48.48%	16
▾ 5	12.12%	4
TOTAL		33

Many of the teachers who took my survey said that 80% of the time they model the digital age work and learning. This standards wording is weird, so I take this standard as meaning that the teacher can effectively show how as technology is growing more and more jobs are using the technology, and so this will change our future jobs. Being able to effectively show how technology is changing jobs is important so that the kids will hopefully be inspired and maybe find a career field that interest them. If they do, you can use this information in the classroom to increase their learning.

9. Promote and model digital citizenship and responsibility (ISTE 4)
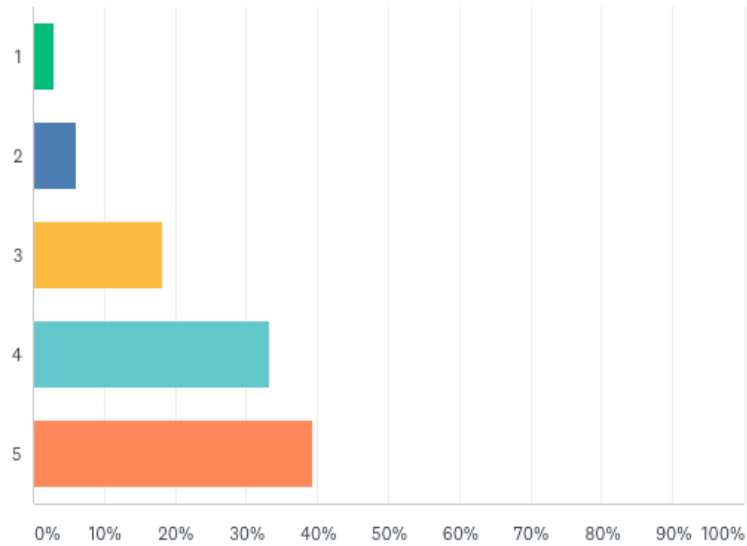
ANSWER CHOICES	RESPONSES	
1	3.03%	1
2	6.06%	2
3	18.18%	6
4	33.33%	11
5	39.39%	13
TOTAL		33

This standard tied into using technology ethically and legally. These two standards go together because if teachers are using the technology ethically and legally they should be able to then effectively show how to use technology responsibly. Many of the teachers who took my survey found that they used technology in a way that promoted citizenship and responsibility, which is incredible to see considering that it lines up with the legally and ethically using technology question. As technology continues to grow we need to maintain this responsibility.

10. Engage in professional growth and leadership (ISTE 5)
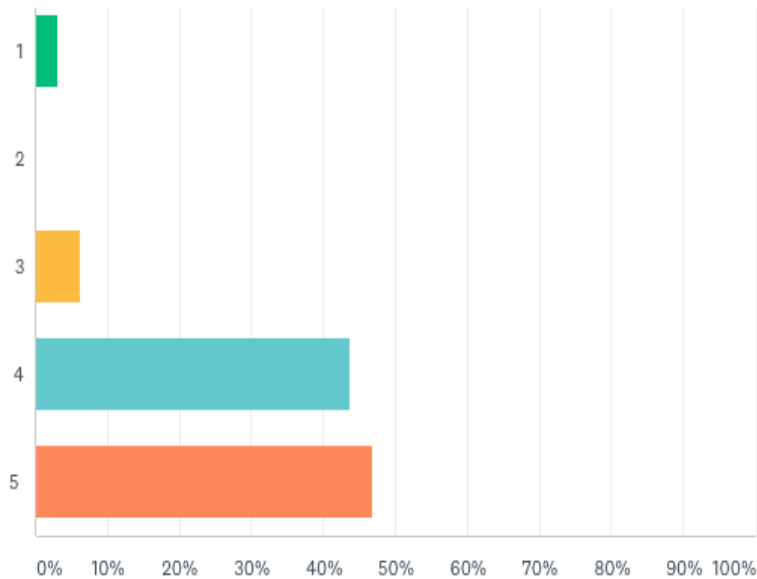
ANSWER CHOICES	RESPONSES	
▼ 1	3.13%	1
▼ 2	0.00%	0
▼ 3	6.25%	2
▼ 4	43.75%	14
▼ 5	46.88%	15
TOTAL		32

Many of the teachers who took my survey 80% about said that they participate in professional growth and leadership. This was interesting because if they are participating in professionally growth and leadership shouldn't their confidence be higher for using technology in the classroom? I wish I could ask the teachers who took my survey this because if I am trained in something I would want to practice it to become confident in order to properly encourage my students.

Interviews with Educators

Throughout this semester, my advisor and I created some interview questions to ask so I was able to receive information about using technology and how other people view the KTS and ISTE Standards. I wanted to see how each educator ranked themselves using the standards. All the questions came from information on the KTS and ISTE tables. We also created an interview protocol sheet so I was able to get information about the people I was interviewing. Two people that Dr. Hansen wanted me to interview were Ms. Patti DePriest and Dr. Christina Grant. I had the opportunity to have Dr. Grant in class when I was taking classes in the education department. My advisor and I created an interview protocol sheet to fill out during the interview. Here's what it looks like:

Interview Protocol

Interviewee:

Information:

_____

1. *Why is it important for teachers to develop their technology skills?*

   _____

   _____

2. *From the KTS (Kentucky Technology Standards) #6 technology standard, which element do you think is the most important and why?*

   _____

   _____

3. *From the ISTE teacher standards, which standard is the most important and why?*

   _____

   _____

4. *How do you rate the quality of the website/programs you use in your classroom?*

   _____

   _____

5. *What are some of your favorite websites/programs to use with elementary children?*

   _____

   _____

Patti DePriest

Ms. DePriest an Instructional Technology Specialist with the Kentucky Academy of

Technology Education (KATE) at the College of Education and Human Services at MSU. She a

master's degree from Oklahoma State University in Instructional Technology. She work at

KATE with faculty, staff, students, and in-service teachers to not only train them how to use

technology, but how to implement it into the classrooms.

For our interview, Ms. DePriest and I talked through email and she sent me her answers through

via email.

Interview Questions with Ms. DePriest:

1. *Why is it important for teachers to develop their technology skills?*

   Technology is such an integral part of our world today and almost every career, even those that

don't exist today, will employ the use of technology. Technology in the hands of teachers and

students allows them to go beyond paper and pencil to activities that like taking virtual field trips, collaborating on documents online, creating movies, making ebooks, and allows for student driven work. It also allows for differentiating assignments for students.

2. ***From the KTS (Kentucky Technology Standards) #6 technology standard, which element do you think is the most important and why?***

6.2 Uses available technology to implement instruction that facilitates student learning. I believe this is the most important standard because it allows teachers to not only focus on the student, but allow them to facilitate learning in ways that were previously impossible. For example, creating HyperDocs in Google Docs or Slides can lead students to websites, videos, and articles where they will learn about their topic, summarize and present the information in a creative way, and possible share their information with the world through a blog, website, or possibly a video conference with another class. Learning is less lecture and more hands-on and student driven.

3. *From the ISTE teacher standards, which standard is the most important and why?*

This is a difficult question, since they are all so important, but I would go with Standard 6.1. The standards that you shared are old and have been replaced by these for educators: https://www.iste.org/standards/for-educators. Standard 1 was to facilitate and inspire student learning and creativity and I believe it is very similar to standard 6.2 from Kentucky. In the workplace, employees are required to not only learn on their own, but they are required to be creative in applying what they have learned to their job. In order for our students to be prepared for college or for a career, they need this skill, along with all of the other ISTE standards. If you look at the ISTE student standards that I believe came out last year, all of those are guiding teachers

with planning activities and curriculum that will enable our students to be ready for the future when they graduate.

4. ***How do you rate the quality of the website/programs you use in your classroom?***

Some are definitely better than others. I look for websites, apps, and other technology that supports creativity, analysis, and other higher-level skills. I use Google to create documents, but use many other sites and apps to develop higher level skills.

5. ***What are some of your favorite websites/programs to use with elementary children?***

Google Hangouts for Mystery Hangouts, for bringing authors and experts into my classroom, and for taking virtual field trips, the Google apps including Classroom and My Maps, Book Creator, Flipgrid, Padlet, screen casting apps, Code.org, NearPod, Socrative, Kahoot!, Edpuzzle, Minecraft: Education Edition, WeDo Lego Robotics, and more.

From our email interview, I could tell that she was very detailed about her responses. She is very student oriented in her teaching; she only uses technology she believes will be best for her and the students. You can also tell that she wants to use the student's creativity and embrace it rather than tear it down. Ms. DePriest realizes that technology is a growing part of our world, and she embraces the technology her students have in the classroom rather than making it like it is forbidden. I like that some of her favorite apps are some of the technology I have heard about before. This tells me that the ones I've heard about before are more popular than the others.

Dr. Christina Grant

Dr. Christina E. Grant is an assistant professor in Reading Education at Murray State University. Her credentials include B.S. Elementary Education, M.A. in Reading Education, and

Ph.D. in Reading Education. Ms. Grant has worked in public education for over five years in the state of Iowa. She lives in southern Illinois with her husband and two children.

Interview Questions with Dr. Grant

1. *Why is it important for teachers to develop their technology skills?*

    This is important for teachers to do so that they can model appropriate use of technology to the students.

2. *From the KTS (Kentucky Technology Standards) number 6 technology standard, which element do you think is the most important and why?*

    I LOVE 6.1- 6.4 and feel that 6.5 is appropriate. My favorite things from each of these standards are that: 6.1- resources 6.2 & 6.3 active participation 6.4 analyzation

3. *From the ITSE teacher standards, which standard is the most important and why?*

    It is hard to choose but if I had to pick one it would be #1 because it would allow me creatively inspire and motivate students in this generation.

4. *How do you rate the quality of the website/ programs you use in your classroom?*

    I believe I do a fantastic job of it but then again, I am also biased in saying that.

5. *What are some of your favorite websites/ programs to use with elementary children?*

    - Writingfix.com
    - readwritethink.org
    - fcrr.org
    - readinga-z.com

    From my interview with Dr. Grant I believe she uses technology effectively in her classroom. I think that this shows through the fact that she knows the standards. She wasn't very

detailed in her interview because she was busy and there wasn't a time we both could meet together. We were supposed to meet but she had a meeting come up, so I put the questions on her door and she answered the questions and got them back to me. I believe if I would have gotten to sit down and talk with her I would have gotten more of the answers I was looking for. Knowing from experience I know that Dr. Grant uses her technology in the classroom effectively.

Dr Stephanie Hendrith

Dr. Hendrith originally received my B.S. in Graphic Communications from North Carolina A&T State University. Afterwards, she went back to school and received an Associates (A.A.S.) in Interior Design from International Academy of Design and Technology. She then realized that she had a love of teaching, and wanted to combine her creativity with instruction. Dr. Hendrith went back to school at Lipscomb University to receive her MEd (masters) in Instructional Leadership, which lead to a EdD (doctorate) in Leadership from Trevecca. She considered herself to be a unique learner, who functions best with visual cues (which is why her first degree was in graphic design), which is why technology has always been helpful for her. Dr. Hendrith taught elementary in the urban, diverse areas of Nashville, TN for 7 years before moving to college-level teaching.

Interview Questions with Dr. Hendrith

1. *Why is it important for teachers to develop their technology skills?*

It is important for teachers to develop technology skills for several reasons:

A.   Students currently in elementary school are considered "digital natives", meaning they have never grown up in a world without technology. They are not familiar with society before

technology arrived. As a result, teachers must learn to operate the technology that the students

are familiar with in order to educate them.

B.   Technology can help teachers differentiate instruction to reach all students. Many

students are able to communicate more effectively when they are using digital apps to do things

such as draw, spell, learn multiplication facts, etc.

C.   There are currently many technology applications that can help teachers become more

organized, increase parent communication, and all around assist teachers in becoming more

efficient in the classroom. Teachers can benefit from using technology.

2.   From the KTS (Kentucky Technology Standards) #6 technology standard, which

element do you think is the most important and why?

I believe element 6.2 is very important because it asks teachers to use research based technology

to implement instruction that facilitates student learning. Instructional technology is most useful

when it helps facilitate student understanding. If you can enhance a lesson using technology, then

you have helped a student communicate better, prepared them for the 21st century, and also

given them the opportunity to differentiate what they have learned in a format that allows them

to be creative and unique.

3.   From the ISTE teacher standards, which standard is the most important and why?

They are all equally important, however I favor standard 1 because it addresses students'

creativity and learning. I believe in every student having the equal opportunity to "show what

they know" and technology helps to make that a possibility. Students no longer have to show

they have learned a concept based on a written assessment, they can show it in a variety of ways,

and computers and iPads have helped to make that a possibility.

4.   How do you rate the quality of the website/programs you use in your classroom?

In my classes, I try to recommend websites and apps that preservice teachers will find easy to use, are free of charge, and can be easily transitioned into the classroom. No rating scale has been provided, so it is not possible to "rate" them.

5.   What are some of your favorite websites/programs to use with elementary children?

Some of my favorite websites to use in the elementary classroom are:

- prodigy.com

- brainpop.com

- starfall.com

- pbskids.org

- funbrain.com

- abcya.com

Elementary Education Web Resources

There have been plenty of websites that teachers implement into their lesson planning to use in their lessons today. There are plenty of sites that can help elementary children learn inside and outside the classroom today. I have looked up 20 websites that I have used and ask some of the teachers and professors that I have had before. To make sure websites are effective, I have brainstormed a rating instrument that will help see if they are applicable for elementary students. Some of the criteria for this rating tool are:

- Relevance- To see if the websites is related to what to what teachers are teaching in their class.

- Customization- To see if the websites is able to adjust or be flexible to what is being taught.

- Feedback- As teachers, positive feedback shows that you have done your job teaching the lesson.

- Thinking skills- want to see if the website helps students become more effective and creative

- Engagement- it's important to gain students attention and sharing.

- Sharing- important because the students can share what each student does by printing off their success. Also, teachers can share with the students' parents the website at home so the parents know what they are working on throughout the day.

I connect this with my survey and interviews with other educators because I can base everything off this rating instrument. I made sure the questions I asked for both my survey and for the interviews were relevant to what I have learned in the past and wanted to gain their feedback on what they know about instructional technology.

Here are the websites I have looked up in alphabetical order:

ABC Mouse

- https://www.abcmouse.com/

- This website is a great website for kids age 3-5. The overall theme for this website is for

  kids learn about different subjects while playing games. It has topics such as reading,

  math, arts, etc.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

- Overall Rating- Above Average

Academic Earth

- http://academicearth.org/elementary-education/

- Active Science is a website that allows students to play, explore, and discover about different things. It helps kids be active and still learn about different subjects. It helps the students to be using things hands on and working with each other. Their aims are for kids from Kindergarten through fifth grade.

Characteristics	Above Average	Average	Below Average
Relevance to learning		●	
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

- Overall Rating- Above Average

Adobe Spark

- https://spark.adobe.com/

- Adobe Spark is a great website that helps students make their own videos or stories about lessons they have done in class. It helps the students have a creative mindset and they are able to do it on an I-pad. It's great for reading lessons for students because it allows them to tell the story in their own imagination.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Brain POP

- https://www.brainpop.com/

- An educated website that has over thousands of quizzes and related materials for kids to use in the classroom. This website has animated movies for the kids to watch before they take their quizzes. It has all kinds of subjects such as science, history, social studies, English, math, arts & music, etc. Brain POP can be used for any subject and can be used at any age level.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

- Overall Rating- Above Average

Canva

- https://www.canva.com/

- Canva is a website where you can create blog posts, make posters, flyers, cover pages, and layouts. The best thing about Canva is that it's easy to drag and move things to where you want things to be placed at for the design you want to make. It's good for all grade levels to use.

Characteristics	Above Average	Average	Below Average
Relevance to learning		●	
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above average

Cool Math 4 Kids

- https://www.coolmath4kids.com/

- Cool Math 4 Kids is a good website that kids can work on their addition, subtraction,

  multiplication, division, and dealing with fractions. The website as different lessons so

  you are able to learn about different math skills. After you do the lesson, you can do a

  quiz to test your knowledge or play math games to get you thinking and having fun at the

  same time. Kindergarten through fifth grades seems to be the appropriate age for this

  website.

Characteristics	Above Average	Average	Below Average
Relevance to learning		●	
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

E-Learning for Kids

- http://www.e-learningforkids.org/

- E-Learning for kids is pretty much based on helping kids improve their basics of reading, science, math and working on computers. It covers subjects such as math, environmental and life skills, science, health, and language arts. Grade levels for this website goes from first through fifth grade.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

- Overall Rating- Above Average

Fun Brain

- https://www.funbrain.com/

- http://www.funbrainjr.com/

- Fun Brain is an educational website that can be used by both children and adults. According to the website, Fun Brain is the number one website for online educational games and for students for all ages.

- Fun Brain jr. assists preschoolers and kindergarteners using online games for different subjects.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Highlights for Kids

- https://www.highlightskids.com/

- Highlights Kids is a website that children any age can play games and discover new jokes, surveys, and answer to science questions about different subjects or events that has happened. It's a kid's magazine that has different things to do so kids are able to have fun and learn.

Characteristics	Above Average	Average	Below Average
Relevance to learning		●	
Customization- how it helps differentiation		●	
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Slightly Above Average

IXL Worldwide

- https://www.ixl.com/

- This website is a good for going over math, language arts, science, and social studies. It
  provides automatic feedback after every question and helps you have your brain thinking
  at all times. Grade levels go from preschool through 12th grade and it also provides
  Spanish lessons on there for all ages.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above average

Game Classroom

- http://www.gameclassroom.com/

- Game Classroom is an educational game website that gains information for other

  websites to create games and have they categorized them by skill, age level, and

  whichever subject you want to do it in. It also involves something called Homework

  Help, which gives you sample problems before you actually go into the real lesson.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Google Classroom

- https://classroom.google.com

- Google Classroom is a popular way now where schools can create assignments where students can work on their homework without using paper. It's a website that makes sure everything is organized and helps the teachers communicate with their students with immediate feedback after a homework assignment. This website is good for all grade levels and is starting to become more popular in elementary classrooms today.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Google Docs

- https://www.google.com/docs/about/

- Google Docs is a program where you can work on your documents at any time and you
  are able to edit at any time. It allows you to share documents with others. It's good for
  group presentations because it allows for other group members to put in their part of the
  project without having to wait on somebody else to put their information in.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Google Drawings

- https://docs.google.com/drawings

- Google Drawings is an application that allows students to draw charts, concept maps, and
  other types of diagrams. It allows others to edit drawings if they are in a group. Google
  Drawings is good for all grade levels.

Characteristics	Above Average	Average	Below Average
Relevance to learning		●	
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills			●
Engagement- are the students interested		●	
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Average. I didn't rate this website as high because it's a good website for
students that are creative and like to make online drawings. Some students have a creative
mindset and some don't.

Kahoot!!!

- https://kahoot.it/

- Kahoot is a game-based website that makes learning fun and easier for kids of all ages.

  Kahoot can be used for any subject any subject on any device you want to play it on. It

  helps review student's knowledge on what they just learned in the class.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

Little Bird Tale

- https://www.littlebirdtales.com/

- Little Bird Tale is reading/ language arts app that you can use on the computer or on devices like their phones or tablets. It has example lesson plans the teachers can use as well as a way for students to create tales that they have created. All elementary grade levels can use this.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative		●	
Thinking Skills		●	
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating: Above Average

Make Me Genius

- http://www.makemegenius.com/

- Make Me Genius is a science-related website that shows animated cartoons about

  different science lessons. It has PowerPoints that talk about each lesson and shares facts

  about the science lessons as well. Grade levels go from kindergarten through eighth

  grade.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rating- Above Average

National Geographic Kids

- https://kids.nationalgeographic.com/

- National Geographic for kids is a phenomenal website for all age ranges to just explore

  history and art things. It's a mainly fun interactive site that involves learning.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation		●	
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.		●	

Overall Rate: Above Average

PBS

- http://pbskids.org/

- PBS is a great website for children and kids to use at the elementary school level. It

  provides a lot of educational activities for inside and out of the classroom.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation	●		
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.	●		

Overall Rate: Above Average

Starfall

- http://www.starfall.com/

- StarFall is a very student related learning for math and reading. This is aimed towards the

  kindergarten and first grade levels. It also has cool activities for every holiday.

Characteristics	Above Average	Average	Below Average
Relevance to learning	●		
Customization- how it helps differentiation		●	
Feedback- positive or negative	●		
Thinking Skills	●		
Engagement- are the students interested	●		
Sharing- ability to share with fellow teachers and parents.		●	

Overall Rating: Above Average

Conclusion

To conclude, I think instructional technology is a very vital and essential thing in the classroom. Instructional technology is on the rise as technology takes more leaps and bounds, including it in our future classrooms is going to be dynamic. I also think that teachers need to be highly qualified in their use of instructional technology because this allows them to be more confident. If the teachers don't know how to use it and the technology is in their classroom it looks bad. So, teachers don't look bad and have the confidence it is vital that they develop their technology skills. I believe it will be extremely essential for teachers to be able to use it properly to inspire their students.

The standards that talk about technology integration are the ISTE standards and the Kentucky Teacher Standards. Overall most of the teachers integrate technology into their classroom whether it be through planning or an activity for the students to use for participation in class. Teachers can use technology in the classroom without it being shown directly because there are multiple websites and applications available for teachers to use. Another thing I think that is important with instructional technology is that if children don't like the technology and don't want to do it is to be able to offer them another similar activity to participate with the class without the technology if they choose. This way the class can run smoothly without someone acting out or causing issues because they didn't want to use the technology. I believe instructional technology is an important thing in the classrooms so let's come together learn how to use it properly and continue to teach our future.

The most important thing I've learned about doing this project is that education seems like it is getting away from the traditional style of teaching and turning to

technology for everything. As technology advances it becomes more a part of everyone's everyday lives. I feel like I have grown as a future educator because I have learned why technology has become a vital tool in today's education. Exploring websites and really evaluating them helped me to realize that there are good applications and websites and some not so good ones for the classroom. This has also made me realize that I can integrate technology into any lesson plan whether it be a science lesson or a reading lesson. This paper was a valuable experience to me growing as an educator.

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