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Technology in Education

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Abstract

This paper will examine how technology is useful in education and should be integrated into curriculum. The participants for the Capstone Project included 23 fifth-grade students in a public middle school on the Central Coast of California. This project focused on using a web-based art program called Canva to create infographics based on students' knowledge and study of Ancient Egypt. The students also commented on their peers' work on a blog page the researcher created. The researcher found that students had difficulty using a new application. They were also less creative than the researcher expected, which could be due to a limited attention span or being distracted all of the time. As an aspiring teacher, the researcher knows that using technology in the classroom will be a sought-after job skill because administrators want technologically-savvy teachers. Technology can help students be more successful in their future careers.

Keywords: technology, education, Canva

Technology in Education

According to Pew Research (2015) technology is prevalent throughout our society as 98% of adults ages 18-29 own a cellphone, 78% own a laptop, 86% own a smartphone, and 50% own a tablet computer. Schools have also taken the initiative to provide more technology to their students. According to the Gray, Thomas, Lewis, and Tice (2008), 49% of all public schools provide their teachers, administration, and students with a handheld device. Most teachers use some form of technology in their classroom, but are their students learning with technology? Is technology being integrated into the curriculum? Teachers can feel unprepared and not know how they should use technology in their lessons, so students are left with undeveloped technology skills. Technology has the potential to transform the way students learn when integrated into the curriculum properly.

What is technology?

The present time is known as the digital age as the world is filled with "technology". How should "technology" be defined? In another age, microwaves, televisions, and ovens were considered new technology. As time goes on, the definition of technology has transformed. Technology can be now be defined as "a body of knowledge devoted to creating tools, processing actions and the extracting of materials" (Ramey, 2013, para 1). From this definition, technology still includes many products. The researcher will focus on technology in education.

What is educational technology?

Ramey (2013) defines educational technology as technology that "aims at improving a student's performance by creating and managing various technological processes and resources in or out of the classroom" (para 16). Wenglisky (1998) proposes another definition of

technology in the classroom context, " ...the introduction of computers and related pieces of equipment in the classroom" (p. 5). Chromebooks, eReaders, Interactive whiteboards, and Ipad minis are just some examples of the devices that are being used in educational technology. The goal of educational technology is to help improve the student learning process.

Is technology useful in education?

Technology, specifically digital notebooks, is useful for many subjects, especially science because it can benefit more students (Fulton, Paek, & Taoka, 2017; Miller & Martin, 2016; Miller, Krockover, & Doughty, 2013). Technology integration is all about learning with technology rather than from technology (Fulton et al., 2017). During a summer camp, students used digital science notebooks for recording information and to document evidence from their projects (Fulton et al., 2017). Taking pictures can help students who are English Language Learners, emergent writers, or have other impairments (Fulton et al., 2017). Having multiple options of engagement, allows younger students or students with disabilities to still engage in class content (Miller & Martin, 2016; Miller, Krockover, Doughty, 2013). Miller et al. (2013) found that students with moderate to severe intellectual disabilities could improve their scientific inquiries because they could draw, narrate, and add images in one application. Students with moderate to severe intellectual disabilities may lack written communication skills, so using a digital notebook is helpful because students could use audio recordings of their observations and thoughts (Miller et al., 2013). Digital notebooks also provide more opportunities for note-taking. One program called, Probeware, offers the ability to use photos, audio, and video recording in a note-taking application (Fulton et al., 2017). Using apps like Educreations, students can draw with digital ink over images, record video, or share their work through Dropbox (Miller &

Martin, 2016). Students can organize and reorganize their notes easily. Fulton et al. (2017) found that digital notebooks streamlined organization, so all of the students' work could be in one place. Digital notebooks reduce paper usage, which is better for the environment (Fulton et al., 2017). There are many practical ways that digital notebooks outperform traditional paper notebooks and help more students.

Using digital notebooks can also help students meet Common Core Standards (Miller & Martin, 2016). The State Common Core Anchor Standards span across grade levels and include using technology for higher-level thinking (Miller & Martin, 2016). The second Common Core State Standard for English Language Arts (CCSS.ELA-Literacy.CCRA.SL. 2) states: "Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally" (*Common Core State Standards Initiative*, n.d., para 3). The fifth Common Core State Standard (CCSS.ELA-Literacy.CCRA.SL.5) states: "Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations" (*Common Core State Standards Initiative*, n.d., para 6). As students learn the class content, technology can help them apply and present their learning in different forms. Digital notebooks help meet State Common Core goals, engage students more than traditional notebooks, and bring inclusivity to the classroom. When technology, such as e-notebooks, are used for science, they offer so many opportunities for all learners to create, explore, document, and save time.

Another technological tool to help students learn are interactive whiteboards. Linder (2012) found that interactive whiteboards can be useful for teaching math to children in lower grades. There is a great difference between using technology and integrating technology.

Teachers who *use* an interactive whiteboard in their classroom will show examples of problems or complete electronic worksheets (Linder, 2012). Teachers who *integrate* interactive whiteboards into their curriculum have children visually demonstrate their learning (Linder, 2012). For example, Linder (2012) observed students drawing representations of tens and ones on the whiteboard when discussing place value (Linder, 2012). The interactive whiteboard can be used to introduce a topic, stimulate discussion, and connect math to the real world, instead of showing how to complete a task (Linder, 2012). The interactive whiteboard facilitates learning, rather than prescribing how students should learn. Ultimately, the interactive whiteboard can help develop a better conceptual understanding of math in young children and foster more positive attitudes about math (Linder, 2012). Goodwin (2008) also found that using multimedia tools, like the interactive whiteboard, can help students "develop more robust and more formal concept images of fractions" (p. 115).

Technological tools can be used for math and science, but also reading. Union, Union, and Green (2015) found that when eReaders are used in the classroom, along with reading lessons in class, and practice at home, reading performance improves. Just as reading performance can improve, the desire for reading can improve as students use e-books. Strout (2010) found that if e-books were included in first grade classrooms, students would read more often. Union et al. (2015) used portable technology intervention, the Nook Simple Touch eReader, in a third grade class during English Language Arts lessons. Portable technology was important to the researchers because it promotes learning anytime and anywhere (Union et al., 2015). Having this sense of control over reading is what students enjoy most while using e-books rather than traditional books (Strout, 2010). Features like highlighting, oral narration, a

dictionary, story choice, illustration movements, and taking notes ease the reading process for all students and encourage their desire to read more (Union et al., 2015; Strout, 2010). Union et al. (2015) found the average reading scores for students who used eReaders improved even with regular language arts lessons, while the reading scores of those who did not use eReaders declined. Using eReaders and e-books along with current language arts lessons in the classroom can improve reading performance and the desire to read.

Is technology important in education?

Teachers want their students to become self-directed learners who will desire to learn on their own. McQuirter and Meeussen (2017) explored how technology can help students become self-regulated learners. Self-regulated learners are students who have the motivation to work independently and manage themselves well (McQuirter & Meeussen, 2017). McQuirter and Meeussen (2017) observed self-regulated learners as students who "set goals for themselves, seek assistance from their teacher and other students, and persevere through challenges" (p. 660). By using all these skills, "students can use technology purposefully, learn about the world, and communicate effectively with others" (McQuirter & Meeussen, 2017, p. 661). There are many strategies that support self-regulated learning with technology. Some of these strategies are: "collaboration, goal-setting, decision-making, monitoring progress, and dealing with challenges" (McQuirter & Meeussen, 2017, p. 662). Technology can help students become self-regulated learners, which will provide greater success for students in their future careers.

Is technology useful for 6th grade students studying social studies?

Technology integration for social studies has been low (Hammond & Manfra, 2009). Students receive very little social studies lessons because of standardized curriculum, high-stakes

testing, and a focus on reading and math (Hammond & Manfra, 2009). In order to increase the focus on social studies, teachers can use the giving-prompting-making model proposed by Hammond and Manfra (2009). Some teachers see "giving" or merely telling their students the social studies content they should know as the most expedient route to conveying knowledge (Hammond & Manfra, 2009). Sometimes teachers will use technology to "give" the content they would normally lecture about to their students (Hammond & Manfra, 2009). Although this is could be considered using technology in the classroom, teachers are replacing themselves with a machine. How does this benefit their students?

As teachers move beyond just telling their students what they should know based on the teacher's definitions, teachers can prompt their students and then let them decide. Webquests are one way students can engage in social studies material and sift through the information in an interactive way (Hammond & Manfra, 2009).

After teachers prompt their students, they can also have them apply their knowledge through a project. Hammond and Manfra (2009) proposed, "students generate a product that provides a representation of their understanding" (p. 170). Using the social studies curriculum for sixth grade, students could create a digital travel brochure highlighting the exciting sights in an ancient civilization they studied or create a video based on a person they studied.

What is technology integration?

Kimmons (n.d.) defines technology integration as "the meaningful implementation of technology in educational settings to achieve learning goals" (para 1). There are many theories in psychology that deal with how children learn, which can translate into how students might benefit from technology integration. Behaviorism can show how drill and kill practice is one way

to use technology (Kimmons, n.d.). When a student completes a task, he can play a game on his computer. This is an example of a teacher letting their student use technology, but the technology is not leading the student to higher-level thinking. Cognitivism relates to how humans store and process information (Kimmons, n.d.). Using technology can help students retrieve information through mnemonic devices, video, or audio (Kimmons, n.d.). This approach could be help if students need to memorize facts or process a large amount of information quickly.

Constructivism deals with factors like age, culture, and personal experiences, that influence a learner (Kimmons, n.d.). Using a constructivist perspective, technology can help personalize learning using software (Kimmons, n.d.). Teachers could also make videos featuring their lessons in order for their students to move through the material at their own pace.

Constructionism is a way to teach students by having them construct models of their thinking (Kimmons, n.d.). Technology can allow students to construct models or simulations that would not be possible in the real world (Kimmons, n.d.). Students are not able to physically construct their own bridge, for example, but they could use a computer program to simulate the scale and materials needed. Connectivism assumes that learning is not the same as it was in the pre-digital age, because students have so much access to information and resources from laptops and smartphones (Kimmons, n.d.). Effective technology integration under the theory of connectivism will connect students to one another and give them more access to information consistently (Kimmons, n.d.). Although all these theories of learning may seem overwhelming to a teacher, Kimmons (n.d.) suggests the first step to successful technology integration is for teachers to define learning and how students learn. The ultimate goal of technology integration is "...using technology to improve the learning of content knowledge" (Kimmons, n.d., para 13). These

theories can provide the knowledge necessary for educators to create a model that works best for their individual classrooms.

What should the teacher do?

There are numerous technology integration models that could work in many different types of classrooms. Kimmons and Hall (2018) examined which technology models worked best for pre-service and in-service teachers. The different technology integration models discussed included: Substitution, Augmentation, Modification, Redefinition (SAMR), Technological, Pedagogical, and Content Knowledge (TPACK), Replacement, Amplification, and Transformation (RAT), and Technology Integration Planning model (TIP) (Kimmons & Hall, 2018). Kimmons and Hall (2018) found that teachers' attitudes and beliefs about technology will affect how much it is integrated into the classroom. Teachers must figure out how integration is meaningful to them in order to successfully integrate technology into their curriculum. Technology integration should be connected to a theory and that theory needs to be practical, clear, and connected to outcomes (Kimmons & Hall, 2018). Teachers need to adopt a model not because it is widely used and works in other contexts, but because it works in their classroom (Kimmons & Hall, 2018). Models are helpful for teachers, but ultimately teachers know their own students the best and what will work in their classroom.

Evaluation of Options

Professional development, educating pre-service teachers, and integrating technology into curriculum are options for increasing technology integration in the classroom. Professional development does not take additional time, does not cost teachers, and can be sustainable. Educating pre-service teachers in technology integration can take time, but costs students very

little, and can be sustainable. Integrating technology yields the most sustainable results, but takes time to implement and can cost the district as they must purchase devices for each student.

Options	Time	Cost	Sustainability
Professional Development	Low	Low	Medium
Educate Pre-service teachers	High	Low	Medium
Integrate technology into curriculum	High	High	High

Option 1: School districts can provide professional development for teachers to learn how to integrate technology into their lessons.

Why is professional development important? Because teachers' attitudes predict how much they will integrate technology. Pittman and Gaines (2015) explored technology integration in third, fourth, and fifth grade classrooms in schools in Florida. Age, gender, and years of experience in the classroom do not affect if technology will be integrated as much a teacher's beliefs (Pittman & Gaines, 2015). One significant barrier to technology integration is the time it takes to learn and implement new technologies (Pittman & Gaines, 2015). Professional development can help solve this problem by lessening the time it takes for teachers to implement technology (Pittman & Gaines, 2015). Professional development can also give teachers strategies to use with students and emphasize the importance of technology in their students' success (Pittman & Gaines, 2015). Makki, O'Neal, Cotten, and Rikard (2018) found that attending the

summer institute was a great predictor of teachers' intentions to use computer features in their classroom. Teachers need to be guided through how to integrate computers into their lesson plans in order to be more comfortable with computer features (Makki et al., 2018). Overall, the time is takes teachers to learn new technologies upfront may be high, but students ultimately benefit the most.

Although schools may have limited funding for technology, educating teachers is still important. Makki et al. (2018) explored the impact of second-order and third-order barriers to technology integration when first-order barriers are high. First-order barriers are extrinsic features, like a lack of access to hardware and software or a lack of an information technology (IT) department in the district or school (Makki et al., 2018). Second-order barriers are intrinsic features, like a teacher's attitude toward technology (Makki et al., 2018). The third-order barrier is a teacher's design thinking, which is their creative and contextual thinking (Makki et al., 2018). Makki et al. (2018) found that tackling the third-order barrier is a significant predictor of computer integration in the classroom. Makki et al. (2018) suggests "design thinking motivates teachers to overcome obstacles stemming from limited resources" (p. 95). When teachers attended the summer institute put on by Makki et al. (2018), they were more likely to use computer features in their classroom. Teachers need to be guided through the process of integrating computers into their lesson plans in order to be more comfortable with computer features, thus they will want to integrate computers into their classroom.

There are a couple of reasons why professional development may be a great option for schools. First, professional development is already a requirement for teachers, so adding the topic of technology integration would not require the teacher to spend time on their own.

Professional development also allows teachers to collaborate with other teachers and an expert who can help them. Second, the cost is minimal as the district has already set aside funds in their budget to give teachers professional development. Sustainability is hard to measure, but since technology is always changing teachers would need to keep up with the latest trends. Teachers will always be learning new teaching strategies, so they could also spend time learning about new technology and how it could fit into their classroom.

Option 2: Pre-service teachers can take courses to learn about technology before entering the classroom.

Pre-service teachers may not want to integrate technology into their lessons because they lack computer skills. Koh (2011) found different methods of teaching computer skills to pre-service teachers. He observed how professors raised students' computer self-efficacy. Self-efficacy, which is based on research from Bandura, is the confidence one has performing a task and how that influences the outcome (Koh, 2011). Computer self-efficacy is the confidence someone has using computers. Some teachers used behavioral modeling and others used enactive mastery along with individual consultation (Koh, 2011). Koh (2011) found that a large class size with low confidence needed extensive behavioral modeling with software, while a large class size with high confidence with software only need targeted behavioral modeling. Small class sizes did better with independent problem-solving (Koh, 2011). Pre-service teachers preferred computer courses where they learned by doing design activities, like making a seating chart using PowerPoint (Koh, 2011). When pre-service teachers take an effective computer course, they can feel confident and ready to integrate technology into their lessons.

Educating pre-service teachers can help them build their technological confidence before entering the classroom, but this process can take a long time and is not fully sustainable. This option is not very costly in a sense because pre-service teachers are already paying for other college-level courses. Educating pre-service teachers does take a significant amount of time as a computer course might be a semester or quarter in length, which is at least 10-18 weeks. Along with the professional development option, educating pre-service teachers will help them know about current technology they could use, but teachers will need to spend more time in the future adapting to newer technology when it becomes available.

Option 3: Teachers can integrate technology into their curriculum.

Technology integration has been thought of through a technocentric model for too long (Harris, Mishra, Koehler, 2009). Teachers have tried to use technology first, then decide how it can fit into their curriculum. The technological, pedagogical, and content knowledge (TPACK) model can help solve this problem by providing a framework teachers can use to integrate technology into their own curriculum. Technological knowledge is knowing how to use technology. Pedagogical knowledge is knowing how to teach a subject. Content knowledge is knowledge of a subject matter, like math. Combining all of these types of knowledge together, a teacher will know how to teach students using technology. Hammond and Manfra (2009) use a giving-making-prompting model within the TPACK framework, which allows the teacher and students to see their specific roles in studying social studies and how technology fits into the curriculum. Harris and Koehler (2009) propose using learning activities, like listening to audio, taking a virtual field trip, or designing an exhibit, to promote technology integration. When teachers put the content and pedagogical knowledge first, technology integration can follow.

This third option is the best, even though it takes the most planning and may be costly for school districts at first. This option is very time consuming because teachers will need to revise their lessons and think of ways they could use technology to help their students. Integrating technology might also be very costly for school districts. Although some school districts have provided each of their students with a Chromebook or an Ipad, not all districts have the same funding. Low-funded schools might use their remaining funds for other important needs besides technology. If schools already provide devices for their students, then cost should not be seen as a barrier for teachers. The sustainability of this option is the most attractive because although it is hard to measure, when teachers consistently practice integrating technology in their lessons, it will become easier. Professional development and educating pre-service teachers does not always lead to sustainable results because the practices are merely discussed, but not applied. This option will be discussed and implemented in the capstone project.

Educational technology is using devices that will benefit students' learning. Technology integration is useful and important for the future of education. Using technology is not the same as integrating technology into curriculum. Integrating technology requires the teacher to plan activities that will help students express their knowledge and lead them to higher-level thinking. However some teachers may not want to integrate technology in their classroom because they feel it is not necessary or too difficult. Integrating technology in all core subjects is very important. One core subject that it can be used to enhance is social studies by helping students learn the material in a new, exciting way. Using the TPACK model and the giving-prompting-making model, teachers can find activities to implement in their lessons that will benefit their students and lead them to develop critical thinking skills.

Capstone Project

This capstone will focus on the third option using a social studies lesson for middle-school students. Using technology, students will learn about the ancient civilization of Egypt and then apply their knowledge by creating an infographic on Canva. Once they have created their infographic, the researcher will post it on a blog and students can comment on their classmates' work. Because the researcher will be using the TPACK model, she needs to know the content she will be teaching. After she looked at the social science standards for sixth grade and emailed a couple of sixth grade teachers at the middle-school, she has decided to focus on the ancient civilization of Egypt. The community partner has informed the researcher of some pedagogical approaches to teaching the students social studies. She suggested a kinesthetic approach that includes movement and interactive materials. She also said that the lesson should be meaningful to the students' lives. She suggested that geography could be a great tool to help educate students, since they have little geographical knowledge. The researcher took these ideas into consideration for her project.

Project

Technology is being implemented in education from iPads and tablets to Chromebooks and Smart boards. Although technology is abundant, students are not always using technology to produce new projects. Students might be given a Chromebook at school, but does the teacher integrate the use of technology into their lessons? Technology is useful to students because it helps them meet the Common Core State Standards, become self-directed learners, and provides equal access for diverse learners. When teachers integrate technology into their curriculum, they are preparing their students for the future.

This capstone will integrate technology with social studies in a lesson for middle-school students. Using technology, students will learn about the seven characteristics that make up an ancient civilization and then apply their knowledge by creating an infographic on a website called Canva. Once they have created their infographic, they will comment on one of their classmates' work. Because the researcher will be using the technological, pedagogical, and content knowledge (TPACK) model, she needs to know the content she will be teaching well. After she looked at the social science standards for sixth grade and emailed a couple of the sixth grade social studies teachers at the middle-school, she decided to focus on the characteristics of civilization as they are found in Egypt. The purpose of this project is to integrate technology by having students create something that is not easily made using traditional materials.

Design

The community partner for this capstone project will be Ms. Smith [pseudonym], a teacher at a middle school on the Central Coast. The researcher has been an AVID tutor in Ms. Smith's class before taking capstone, so she already established a relationship with her and her students. She chose this school in particular because the school is 1:1, meaning every student has their own Chromebook. She thought about working with an elementary school at first because those are the ages she would like to teach, but she liked that this school gives each of their students a Chromebook. Most elementary schools in this area are low-income and do not have enough funding to provide laptops to each student. She also thought it would be beneficial if she already knew the teacher before conducting the research. Because this project focuses on technology integration, she wanted to be in a classroom in which every student could participate in the lesson she teaches.

Central Coast Middle School [pseudonym] contains a diverse population and strives to serve all of their students. This community partner told the researcher that their school uses the following message from their principal as the mission statement:

> Our dedicated staff will work hard to challenge your child academically, build connections with students and their families, and ultimately prepare them for high school. With that in mind, our vision at Central Coast Middle School will be to provide a welcoming and safe environment where positive relationships are developed. Our school will maximize achievement through high expectations for learning, behavior, and instruction. We recognize the important role that families play in the life of their children and we believe that effective communication and parent input are essential in helping us achieve our vision. (California Department of Education, 2019)

There are about 750 students at this middle school (California Department of Education, 2019) . The greatest percentage of students are Hispanic or Latino, with other minorities also represented (California Department of Education, 2019). 85% of the school population is socioeconomically disadvantaged (California Department of Education, 2019). 36% of the students are English Language Learners (California Department of Education, 2019). 13% of the population are special education students (California Department of Education, 2019). Central Coast Middle School believes that:

> Every scholar can and should want to learn. If scholars do not learn the way we teach, we can find ways to teach them the way they learn. Ongoing feedback to scholars is critical to scholar learning and progress. Scholars benefit when teachers are willing to learn, are

> receptive to constructive criticism, utilize self-reflection, and participate in professional development. A multi-level, multicultural, safe and open-minded environment enhances the learning process and leads to scholars taking greater responsibility for their own learning. Scholars guided by positive role models can develop the skills necessary to become lifelong learners and celebrate individual successes. (California Department of Education, 2019)

Central Coast Middle School's vision is:

> Together with community stakeholders, we at Central Coast Middle School are focused on preparing students for college and careers through a student-centered project based learning (PBL) approach. We aim to inspire and empower students to excel both academically and socially, while preparing them to be productive citizens and future leaders. (California Department of Education, 2019)

The middle school provides each student with an environment where they can master state Common Core content and work on communication, aesthetics, critical thinking, creativity and collaboration skills.

Technology can not only transform how children learn, but it can also provide better access to students who are not native English speakers as well as students with some disabilities. Knowing that Central Coast Middle School has 36% English Language Learners and 13% special education students, technology needs to be implemented in lessons across every subject. The project the researcher will present will focus on history. Although technology has been used mostly for math and science, history can also be a great subject to integrate technology. Not only does the Internet offer many additional primary and secondary sources to textbooks, there are an

array of options for students to reflect their knowledge. This project will allow students to create their own infographic based on their knowledge of Ancient Egypt and the building blocks of civilization. Then, using a web design program called Weebly, students will be able to reflect on what they have learned by looking at their classmates' work. Using a multimedia approach, students will be applying their knowledge and demonstrating that technology integration is better for their learning.

The class of students the researcher will be working with participate in a program called AVID. AVID is an acronym that stands for Advancement Via Individual Determination. The purpose of AVID is to help students develop skills that will help them be independent learners that go to college. Working as a tutor in various AVID classes across different grades, the researcher can see that students need tools to help them reach their goals, like going to college. Knowing how to use technology is essential to success in college. College students are always writing papers, doing presentations, researching, and connecting with others, using different forms of technology. Students in middle school need to be practicing how to use technology properly for school in order to be prepared for the future. This project will demonstrate various ways of using different types of applications. Students will have the chance to learn some applications they may have never used before, like Canva and Weebly. Learning new skills and using technology are essential for success in higher education, which is valuable practice for these students.

This project will hopefully inspire teachers and students at the middle school to integrate technology into more of their lessons. This school is already on its way to integrating technology because they use a project based learning approach, give all their students a Chromebook, and

include technology strategies in their professional development sessions. Technology integration is not just a good idea, it is necessary in order to prepare students for their future in high school, college, and careers. The technology used does not need to be extremely difficult to learn or expensive because there are many free applications available to schools and districts. The researcher chose to do her lesson in this format because it demonstrates technology integration with students. The goal of this project is for students to create an infographic using three of the characteristics of civilization on the application Canva. Students will also comment on one of their classmates' infographics on Weebly. By going through the process of trying to integrate technology, the researcher can understand the problems teachers face and the success that comes with the final product students produce.

Implementation

The researcher engaged the students by starting with a Kahoot quiz based on their knowledge of Ancient Egypt. Kahoot is a web-based service that allows anyone to create a quiz that can be accessed from mobile devices. The researcher had been introduced to Kahoot in other classes, so she knew this would be an exciting tool that uses technology, while being fun for students at the same time. The researcher created seven questions that tested students on geography and the daily life in Egypt. After completing the quiz with the students, the researcher introduced the concept of an infographic to the students. She showed a model using Google slides and asked questions, like "What do you see?" and "Why are infographics important?" Students raised their hands to answer these open-ended questions. The researcher continued the discussion, but turned the subject to the type of infographics the students would be making. The students would build their own infographic based on their knowledge of ancient Egypt. This

infographic would focus on the seven characteristics of civilization, which are stable food supply, system of government, highly developed culture, written language, social structure, religious system, and advances in technology. The students wrote down three characteristics that they would include on a piece of paper. The researcher showed the students where they would be creating their infographics on Canva.com. She then showed them how to pick a template, put in graphics, upload an image from Google, put in text, make text bigger, and add a text box. The researcher would demonstrate how to complete one of these steps, then give the students a few minutes to work on the step. The students chose a template to use, then started to build their infographic. Students chose pictures that represented the characteristics and also included labels. The researcher encouraged the students to choose a creative title. The researcher also wanted students to include a three sentence description for their infographic. Four samples of student work are shown below.

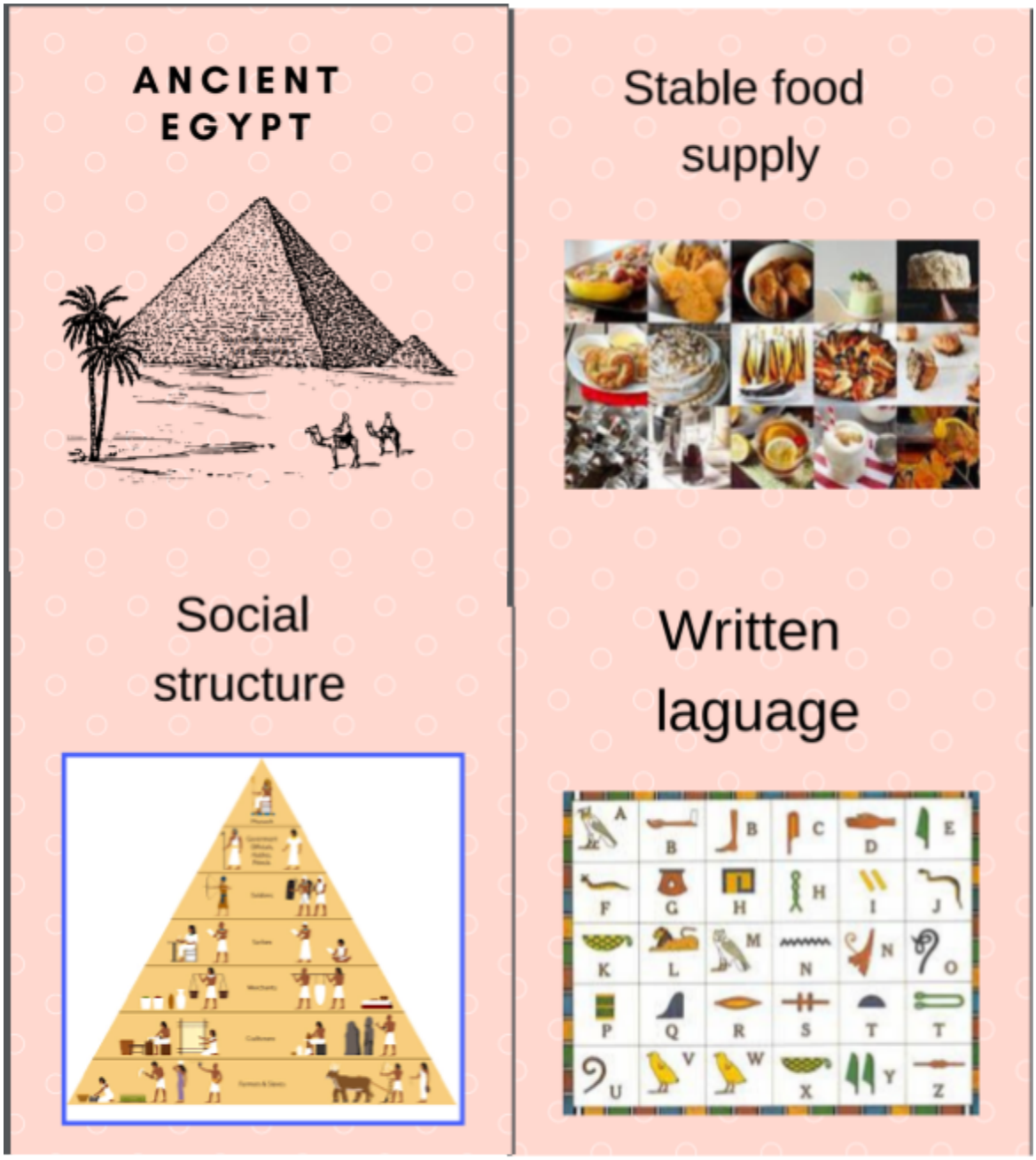

Figure 1. Student's Ancient Egypt infographic

Figure 1 demonstrates a student's infographic. This student decided to put the graphics on four different pages, instead of one page. The researcher did not specify how many pages the infographic should be on because she assumed the students would use only one. The student also included a picture of many different types of food, which may or may not have been found in

Ancient Egypt. The social structure and written language images are accurate. The student also used labels for each of the pictures. The student included a title for the infographic, although it only states the subject matter and does not reflect creativity. There was also no description for why the images were chosen.

Figure 2. Student's Ancient Egypt infographic

Figure 2 shows three distinct images for this infographic, but the researcher is unsure of how pyramids relate to government. The researcher is also is not confident the student knows what social structure is because the image suggests a castle that may or may not be found in Egypt. The student also wrote "The social structure is a building where they live in", which

demonstrates their limited knowledge of what social structure is. The student used labels for each of the images. The student also included a title, but the title only reflected the subject matter. There was no description for the images chosen.

Figure 3. Student's Ancient Egypt Infographic

Figure 3 shows three elements of civilization: stable food supply, social structure, and a religious system. The images and description reflect knowledge of Ancient Egypt. There were multiple images chosen for each characteristic as well. There is also a title for the infographic. Although this infographic was completed on four different pages, it is includes all the requirements.

Figure 4. Student's Ancient Egypt infographic

Figure 4 includes three of the characteristics of civilization: food, writing, and culture. The images reflect knowledge of Ancient Egypt and match the description given. The student did not have enough time to complete the writing section and did not include a title for their project. At the conclusion of the first lesson, twenty-three students participated in a quick three question survey that asked them about the project so far.

Table 1

Technology Survey

Question 1	Answers	Percentage
How easy was it to use Canva?	Hard-I was lost and did not know what to do	26.0%
	Medium-I could figure it out	60.8%
	Easy-I had no problem using the program	13.0%
Question 2	Answers	Percentage
Did you feel Canva helped you learn about Ancient Egypt?	Yes	52.1%
	No	47.8%
Question 3	Answers	Percentage
Would you like to use this program to complete a project in the future?	Yes	69.5%
	No	30.7%

The technology survey included three questions: “How easy was it to use Canva?”, “Did you feel Canva helped you learn about Ancient Egypt?”, and “Would you like to use this program again to complete a project in the future?” The majority of students said they could figure out how to use Canva. The percentage of students that felt that using Canva was beneficial to their learning of Ancient Egypt was fairly even. The researcher thinks that this project was a way for students to use their existing knowledge rather than introduce new topics. The majority of students said they would like to use Canva in the future for a project.

The next lesson was a reflection on the work of a couple of students. The two students who submitted a finished product had their infographic posted on a Weebly website created by the researcher. The students visited the Weebly website and commented on what they saw. The researcher included some questions for students to think about like, “What do you like about the infographic?”, “What could be improved?”, “Are there too many images?”, “Is there too much text?”, “How do the images demonstrate the element of civilization?” The closure to the two lessons presented was a class discussion on technology in education. Students shared what they enjoyed about using Canva and Weebly and whether they view technology as important in the classroom.

Evaluation

The researcher learned that technology integration is difficult, which is one reason why many teachers may not use technology in their lessons. The researcher chose to do the lesson in two parts. The first part was creating the infographic and the second part was reflecting on the finished infographics. The first lesson took longer than expected. The researcher initially planned for two class periods, which would be about 100 minutes, but after the second time around the students seemed to be losing motivation and interest to participate. The researcher expected students to have an easier time with the project, but some students struggled to get started because some could not even log in to Canva. The whole class did not meet the learning objective and even some of the students that finished did not meet the objective the researcher set. According to the grading rubric included in the lessons, the students who finished did not have creative titles or descriptions to match their infographics. The comments students gave about other students’ infographics were disappointing as well. Many said, “good” or “good job”,

but did not comment on specific aspects they liked. This was disappointing to the researcher and she wondered whether she had done something wrong or whether it was the students' fault. If the researcher was a teacher in the classroom with these students, then she could have introduced them to Canva earlier in the year and then, with repeated exposure, they would have felt more ease using it. The researcher did not teach the students a lesson about Ancient Egypt because she assumed the students would know the information to do the project. The sixth grade social studies teachers informed the researcher that the students should be familiar with the characteristics of civilization, which is why the researcher devoted her time to creating the infographic, instead of teaching students information they should know. The researcher started the lesson with the project because she knew that it would be time consuming. The researcher wonders if teaching this lesson to another sixth grade class at another school would have yielded the same results.

Reflection

The researcher learned many lessons from doing this capstone project, which challenged her. The biggest lesson she learned was how hard it is to integrate technology in the classroom. Technology can also be a distraction for students, which makes them less creative. Technology should be integrated, but teachers should know that it will be difficult.

Discussion

The researcher felt that the project was too broad and had a vision, but the details were not complete, so it felt confusing for students. The researcher needed to test out Canva more on her own to know what to do. The researcher did not fully complete the first lesson plan before she presented, which made it hard for the students to know what to do. The researcher also only

had about a week to prepare the lesson, so there was little time for testing out ideas. Many students struggled to know what to do with a variety of choices, which slowed them down. The researcher only had one student finish the assignment during the first round of the first lesson. The one success that came from teaching the first lesson was the anticipatory set, which was a Kahoot quiz. The students liked the Kahoot quiz and one student asked to do it again. This part went really well because it started to engage most of them.

Another success of the project was the fact that all the websites were accessible to the students. Sometimes school districts will set up filters on the Internet so students cannot access inappropriate websites. The drawback to this method is that some potentially helpful websites are blocked. Fortunately, nothing was blocked for the students at school and the lessons did not need to be revised.

During the second round of the first lesson, the researcher had the students write down the three characteristics of civilization that the students wanted to use in their infographics. The researcher wanted the students to understand what they were doing, but many of them did not see the link between the characteristics they wrote down and what they were creating on Canva. The researcher would improve the lesson by making everyone work from the same template and maybe not give a choice of which characteristics of civilization to use. If the researcher was teaching this group of students for the year, she would have students research and take notes on all the aspects and then use their notes to make their infographic. The researcher also focused on modeling how to navigate Canva, specifically how to choose a background, insert a text box, make text bigger, and insert images from Canva and from Google. By showing the students what to do, the students were able to focus their energy on making creative decisions. With more

experience using technology, students can create more and feel more comfortable using a diverse set of applications.

As students were finishing their infographics during the lesson, an unexpected success of this project happened. Some students did not know how to send their finished product to the researcher; but some figured they would share it, instead of downloading and emailing it to the researcher. The researcher did not demonstrate how to use this feature in Canva, but it worked well. The researcher was proud that some students figured out a different way to share their project using their knowledge of technology.

The second lesson used a website creator called Weebly, which seemed easier for the students to navigate. The challenge in the second lesson was not having the use of a projector. The researcher found it difficult to model which website to go to when she could not show all the students at once. Instead, the researcher had to write her email and the Weebly website on the whiteboard for the students to see. Many of the students struggled to get to the website because they did not type the website into the browser correctly. The researcher had to come around to each student to make sure they were finding the correct website. The researcher expected the comments on Weebly to be better, but many just said “good job”, but did not give a reason why. The researcher assumed the students would read the directions and questions the researcher left on Weebly, but most of the students did not. The researcher should have walked the students through the questions and asked them to repeat them back to her. The researcher also realized the students needed the directions and the grading rubric to be made explicit to know what to do. The researcher assumed the students would write more, but many did the bare minimum with little higher-level thinking.

The closing discussion revealed some interesting thoughts. One student said that he liked Canva because it let him design and another student said that she liked Weebly because it allowed her to view her classmates' artwork. A couple of students said that using technology in the classroom allows them to research more. The researcher was happy that the students were reflecting and thinking about how they use technology in their education.

One of the greatest lessons the researcher learned was to stop making assumptions that the lesson will work according to the plan. One assumption the researcher made was that every student would be able to log-in. In reality, although the majority of students were able to log-in to Canva using their Google student account given through school, a couple of students were not able to log-in using their account. The researcher let these students use her log-in information in order to participate in the project. The researcher learned that if teachers are going to use technology in their classroom, then the teacher needs to know how to troubleshoot problems, like logging in, quickly.

Another assumption the researcher made was expecting the students to finish quickly. The students took about an hour and an a half to finish the project. The researcher also expected the students to figure out how to use Canva quickly, but most of the students did not intuitively know how to navigate the program.

One good assumption that the researcher should have made was that students most likely will not read directions. Students need guidance through what they need to do rather than be expected to read written directions in English. The community partner pointed out that the researcher should have made the lesson clearer by walking the students through everything

before letting them work independently. Once students start working on their own, it can be hard to get their attention again.

Another big lesson the researcher experienced was when technology can fail. The researcher prepared a Google slide presentation, but because the community partner was unable to get the projector to turn on, the researcher could not present the anticipatory set to the students. The researcher decided to move on with the lesson, while the community partner tried to work on the projector. Unfortunately, the projector never turned on, but instead of taking time to try to figure out the problem, the researcher knew it would be best to move on.

A question the community partner asked the researcher was "How the researcher will measure the product?" Because the researcher did not fully complete the lesson the first time, the researcher went back to edit the lesson and added a grading rubric. Another note the community partner gave the researcher was setting time limits for students. This was implemented in the second round of teaching the first lesson and in the second lesson, which helped the lessons move along smoothly. Setting time limits also helps students know what a deadline feels like.

One of the questions the researcher came away with was: "How does a teacher guide students through using technology without making it boring?" The researcher wanted to give the students freedom to be creative, make their choices, and to explore, but the researcher thinks many of them needed more structure and wanted to be told exactly what to do. The researcher found that students do not think creatively or critically that often, so when they are expected to think in this way, it is difficult. This may be because of the constant distractions of phones and tablets dividing their attention. The irony of this project is that technology may be causing

students to lack skills necessary for education, but technology can also help students develop their creativity, critical thinking, and collaborative skills.

Some of the limitations of this project include, timing, students' knowledge, and the sample of students. The researcher knew time would be limited, but did not realize how much timing would matter. The researcher only had 50 minutes to present the first lesson. The next time the researcher presented she had 40 minutes to re-teach the lesson. The last lesson was the regular 50 minute period. The researcher did not expect students to finish their infographics during the first lesson, but she thought most of them would be able to finish during the second round. In reality, the students took about an hour and a half to fully finish their infographics and even then most of the students still needed more time.

Another limitation the researcher found was the lack of knowledge about Ancient Egypt. The researcher based the lesson on information the students should have learned in their social studies classes. The researcher had emailed the social studies teachers prior to making the lesson to know what information should be addressed in the project. The researcher began the lesson with a short discussion on the characteristics of civilization and some students knew what the researcher was talking about. As the researcher looked over the finished infographics though, she saw that some students did not understand what social structure means. The researcher should have addressed this earlier by explaining what each characteristic meant and asked students to give examples.

A final limitation the researcher found was the sample of students and the type of classroom the researcher was in. Other sixth grade students may have had a better knowledge of Ancient Egypt and how to use online art tools, like Canva. A different group of students at a

different school might produce different results. This project may have been better to do in a social studies class rather than an Advancement Via Individual Determination (AVID) class. Although the students still knew the information, the regular teacher could have helped the students more.

Recommendation

A way to improve this Capstone for the future would be to use a model. Technology integration can work successfully when implemented in a model. The technological, pedagogical, and content knowledge (TPACK) model is a tool for teachers to use when integrating technology in the classroom (Koehler, 2012). Because the researcher had limited knowledge in all the areas of the TPACK model, the lesson was not as successful as it could be. This lesson might work better for a seasoned teacher who has a thorough knowledge of the sixth grade social studies curriculum and experience in the classroom. A teacher could spend more time explaining the characteristics of civilization along with a thorough understanding of the people, culture, and life in Ancient Egypt. By starting with a broader base of knowledge, then students have a greater potential to demonstrate their learning through a project like the researcher wanted.

According to McQuirter & Meeussen (2017), if students work in groups collaboratively then this could lead to students becoming self-regulated learners. This project might have been hard for students because they had to focus and persevere through the challenges of figuring out a new application. If the researcher taught this lesson again, she would put students in groups and assign roles to each student. This would help students who may not be as creative to work with

others to brainstorm ideas. By including roles for students, the teacher would be requiring all students to participate, so one student is not left doing all the work.

Future Plans to Build on Capstone

The researcher wants to become an elementary school teacher in the future and having technology skills is in high demand. School administrators want to know whether potential teachers can use technology in their classroom. By completing this Capstone, the researcher has shown that she is capable of making a lesson that integrates technology. The researcher sees the potential for this lesson to be expanded upon by having the students not only create an infographic, but also creating a website where the infographic can be shown to the class or the public.

Another way the researcher could frame this project is by having students focus on other aspects of Ancient Egypt. Students could create a slideshow that imitates a travel brochure, which highlights the great aspects of daily life in Ancient Egypt. This project would include geography, writing, language arts, and social studies. Students could also present their finished product to the class and pretend to be a travel agent that wants to sell other students a trip to Egypt.

Conclusion

This Capstone addressed technology integration in the classroom. Technology surrounds students and families, so school is the place to learn how to effectively use technology. Teachers might have technology in their classroom, but not know how to use it in their lessons. This

project demonstrated a way to use technology using Chromebooks. It can be daunting for teachers to learn another skill to teach, but technology integration is the future for education.

Technology should be used to help solidify and demonstrate the learning that has occurred in students. By moving beyond rote-learning, students can use higher-level thinking skills through technology to demonstrate the knowledge they learned in a lesson. Skills like creativity, collaboration, critical thinking, and self-direction are in high demand in the workforce. Students need to be prepared for the future. Technology can help students develop practical life skills necessary for their future jobs and careers.

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APPENDICES

APPENDIX A - LESSON PLANS

APPENDIX B - STUDENT WORK

APPENDIX C - TECHNOLOGY SURVEY

APPENDIX D - GOOGLE PRESENTATIONS

APPENDIX E - WEEBLY WEBSITE

APPENDIX A

Ancient Egypt Infographic Project Lesson Plan

1. Lesson Overview
    a. Subject-Social Studies
    b. Topic/Unit of Study-Ancient Egypt
    c. Grade Level-6th grade
    d. Measurable learning objective
        i. Students will create an infographic using three of the characteristics of civilization on the application Canva. (The 7 characteristics of civilization are stable food supply, system of government, highly developed culture, written language, social structure, religious system, and advances in technology)
    e. Lesson Summary-Students will participate in a Kahoot quiz to test their knowledge of Ancient Egypt. Students will use their knowledge of Ancient Egypt and the seven characteristics of civilization to create an infographic that represents three of the characteristics. Students will include a title, labels, and a description to go with their infographic. Students will reflect on their work by answering three questions at the conclusion of the lesson.
2. Implementation
    a. Learning context-The sixth-grade social studies teachers are already exploring Ancient Egypt in their classes. Specifically during this week, students are learning

how Egypt demonstrated the seven characteristics of civilization and what the daily life of an Ancient Egyptian was like.

b. Teaching strategy-The teaching strategy the researcher used was the integration of content areas. “Integration of content areas strengthens skills that students encounter in one content area, but also practice in another, such as reading and writing, and it can lead to the mastery of those skills. It provides meaningful instruction for students in multiple areas of standards in a single class or learning experience. It is also a more authentic way of learning because it reflects what we experience, both professionally and personally, in the world” (Community Training and Assistance Center & Washoe County School District, 2015).

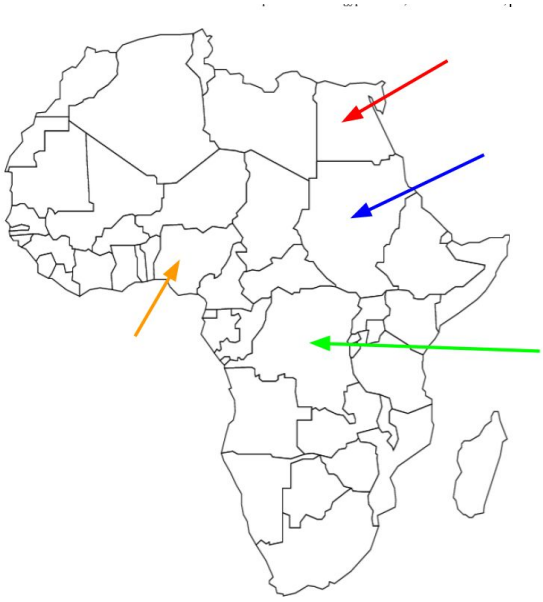
c. Time allotment-100 minutes

3. Procedure

a. Anticipatory Set- The researcher used a six question Kahoot to quiz students on the location of Egypt, location of Nile River, some daily life elements, and what characteristics support civilization.

i. Which continent is egypt located? Africa, other answers: Europe, Asia, North America

ii. Where is Egypt? See map, which arrow is pointing to the correct country



iii. Which river runs through egypt? Nile, other answers: Tigris, Euphrates, Pishon

iv. What did the nile river provide the egyptians? Fertile land for farming, other answers: growth for plants, water for animals, it is the largest river in the world

v. Which one of these jobs was not something egyptians did? Scribes, farmers, craftsmen, carpenters (correct answer)

vi. Which one is not a characteristic of civilization? Stable food supply, religious system, system of government, transportation (correct answer)

b. Modeling

i. Show an example of an infographic and discuss what elements students see

ii. Call on students to name the seven characteristics of civilization

iii. Write down the characteristics on a whiteboard

iv. Show how to get to Canva on the computer

v. Show how to log in

vi. Start designing an infographic on Canva. Have students follow along on their poster as teacher builds a poster (use the mind map template). Ask the students these questions: What background will you use? Why this color or pattern? What colors did the Egyptians use in their art? What did the Ancient Egyptians eat? What form of government did the Egyptians

use? What did the Egyptians write on? What colors were important to Egyptian culture?

vii. Sometimes there is not a good picture for an idea. Use google to search an image instead. Right click on the image, then click “save image as”. Go upload image on Canva and choose the image from the folder.

c. Guided Practice

i. Help students log into Canva.com

ii. Show how to pick a template, put in graphics, upload an image, put in text, make text bigger, add a text box, adding a title to the project

iii. Show how to email the finished project

d. Independent Practice

i. Have students decide on and write down three aspects of civilization on a piece of paper.

ii. Students pick a template for their project.

iii. Students search for graphics and place them in their poster.

iv. Students put a label that describes the characteristic of civilization they chose under each image they use

v. Students give a three sentence description about why this image captures civilization.

vi. Students add a creative title for their finished project.

e. Closure

i. Students fill out a survey that answers these questions

1. How easy was it to use Canva?
2. Did you feel Canva helped you learn about ancient Egypt more?
3. Would you like to use this program again to complete a similar project in the future?

f. Follow-up

i. Students can post their artwork on Weebly and comment on each other's work

4. Materials and Resources

a. Instructional Materials

i. Kahoot quiz

ii. Canva

iii. Survey

b. Resources

i. Paper, pencil or pen, laptops, Internet access

5. Standards and Assessment

a. 6.2.1. Locate and describe the major river systems and discuss the physical settings that supported permanent settlement and early civilizations.

b. Assessment plan-Students will be graded on the details contained in their infographic.

Grading Rubric

Details	Not Met	Developing	Met
Image	There are no images that relate to the characteristics of civilization.	There are less than three images that relate to the characteristics of civilizations.	There at least three characteristics of civilization.
Description	There is no description.	There is less than three sentences of description.	There are at least three sentences of description.
Title	There is no title.	There is a title, but reflects the idea of the subject matter only.	The title goes beyond stating the subject.
Labels	There are no labels around any images.	There are labels for some images, but not all of them.	There are labels for each image.

Ancient Egypt Reflection

1. Lesson Overview
    a. Subject-Social Studies
    b. Topic/Unit of Study-Ancient Egypt
    c. Grade Level-6th grade
    d. Measurable learning objective
        i. Students will comment on at least one of their classmates' infographics on Weebly.
    e. Lesson Summary-Students will finish making their infographics. They will comment on one of the two finished infographics made by their classmates. They can use questions that the teacher will create for prompts.
2. Implementation
    a. Learning context-Social studies teachers are already exploring ancient Egypt in their classes. Specifically during this week, students are learning how Egypt had the seven characteristics of civilization and what the daily life in ancient Egyptian was like. This lesson will give students a time to reflect on their work and the work of their classmates,
    b. Teaching strategy-Analysis of student work: Students will be reflecting and commenting on each other's work.
    c. Time allotment-1 class period-50 minutes
3. Procedure

a. Anticipatory Set-Play a short game of pictures with students. Show four sets of pictures and ask if this is Egyptian or not?
    i. Which art piece is Egyptian?
    ii. Which animal is not found in Egypt?
    iii. Which is Egypt now?
    iv. Which is Egypt?
b. Modeling--how to get to Weebly and comment on a post
    i. Remind how to get to Canva.com and finish project
    ii. Go to Weebly page using this address: https://capstoneproject22.weebly.com
    iii. Show how to comment on a post, you do not need to post a website or email, just put your name and a comment
    iv. Use these prompts to know what to write
        1. What do you like about the infographic?
        2. What could be improved in this infographic? Are there too many words? Are there not enough words? Are there enough graphics?
        3. Why are the colors picked important?
        4. What are the graphics showing?
        5. How do the images demonstrate the element of civilization?
        6. Are the information and graphics accurate? How do you know?
        7. What is another title for this infographic?
c. Guided Practice

i. Help students get logged in to Canva.com

ii. Remind students if they are done with their project see if they have met all the requirements: creative title, three sentence description, labels.

iii. Help them find the Weebly page

iv. Show them how to comment on a post

d. Independent Practice

i. Students will reflect and comment on one classmates' work

e. Closure

i. Reflect as a class using the following questions:

1. What did you like about using Canva and Weebly?

2. How would you like teachers to use technology more?

3. Why do you think using technology in the classroom is important?

f. Follow-up

i. Students can post their own infographic on Weebly and comment on each other's work, instead of having the teacher choose two

4. Materials and Resources

a. Instructional Materials

i. Weebly website with two infographics posted, Google presentation-Is this Egyptian?

b. Resources

i. Laptops, Canva.com, Weebly website, Google slides

5. Standards and Assessment

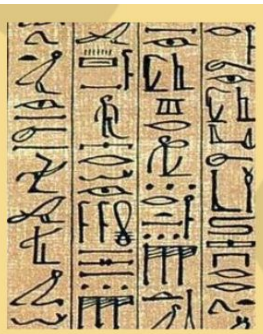
6. Social Science for sixth grade
    a. 6.2.1. Locate and describe the major river systems and discuss the physical settings that supported permanent settlement and early civilizations.
    b. Common Core standards for English Language Arts
    c. CCSS.ELA-Literacy.L.6.1-Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
        i. CCSS.ELA-LITERACY.L.6.2.B-Spell correctly
        ii. CCSS.ELA-LITERACY.SL.6.1.C-Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
    d. Assessment plan

Grading Rubric

Not Met	Met
Student did not comment on a post on Weebly.	Student commented on at least one post on Weebly.
Student did not participate in the class discussion about technology in education.	Student gave a response during the class discussion on technology in education.

APPENDIX B

Writing



	A	vulture		M	owl
	B	leg		N	water
	D	hand		P	stool
	F	viper		Q	hill
	G	stand		R	mouth
	H	rope		S	cloth
	I	reed		T	loaf
	J	serpent		W	chick
	K	basket		Y	reeds
	L	lion		Z	bolt

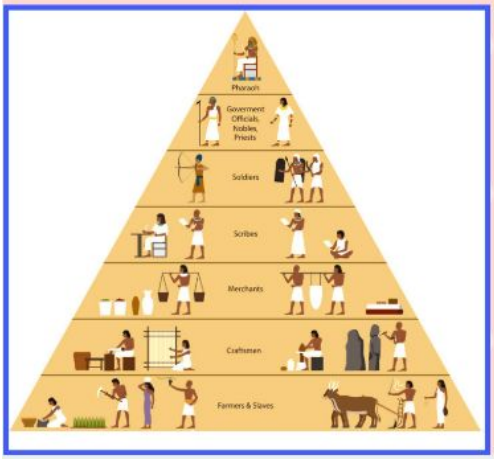
Culture

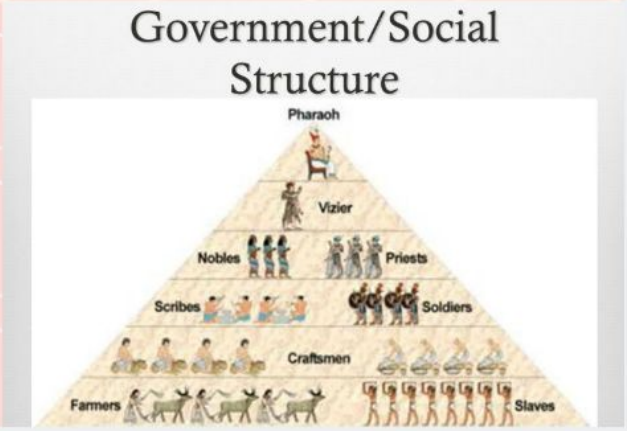
The Ancient Egyptian culture was Clothing, food, Art, Mummies, book of the dead Ect. Most of the Ancient Egyptians lived in a baked mud house. The houses were small with few windows and furniture. They had flat roofs that people would sleep in the summer


Food
the High class of Ancient Egypt was Pharaohs. They Ate meat, Fruit, Vegetables, bread and Drank wine. The lower class drank beer and Ate Fruit and bread and ate beans

Social Structure

THE SOCIAL STRUCTURE HAS DIFFERENT JOBS ON EACH FLOOR. IT HAS ABOUT 6 OR 7 FLOORS. ALSO, THE PHARAOH ARE USAULLY ON TOP.

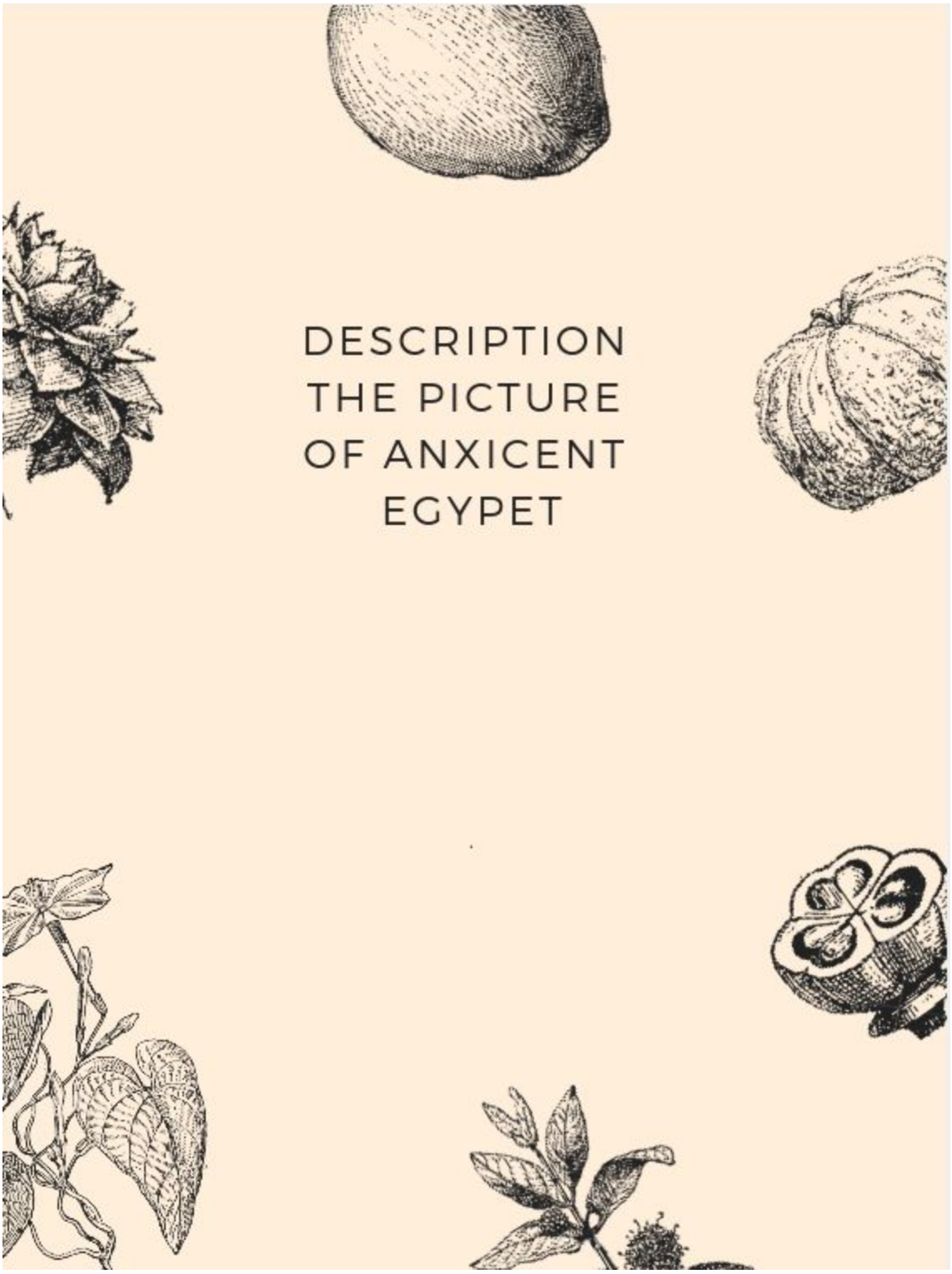





RELIGION SYSTEM
THE RELIGOUS SYSTEM IS RITUALS AND BELIEFS. IT IS THINGS THAT EGYPTIANS BELIVE IN. ALSO THEY KEEP BELIVEING AND DO THING THAT ARE RELIGIOUS.


STABLE FOOD SUPPLY
The stable food supply is their food. They grow wheat, and vegetables.


ANCIENT
EGYPT
The 7 characteristics
Of Civilization.

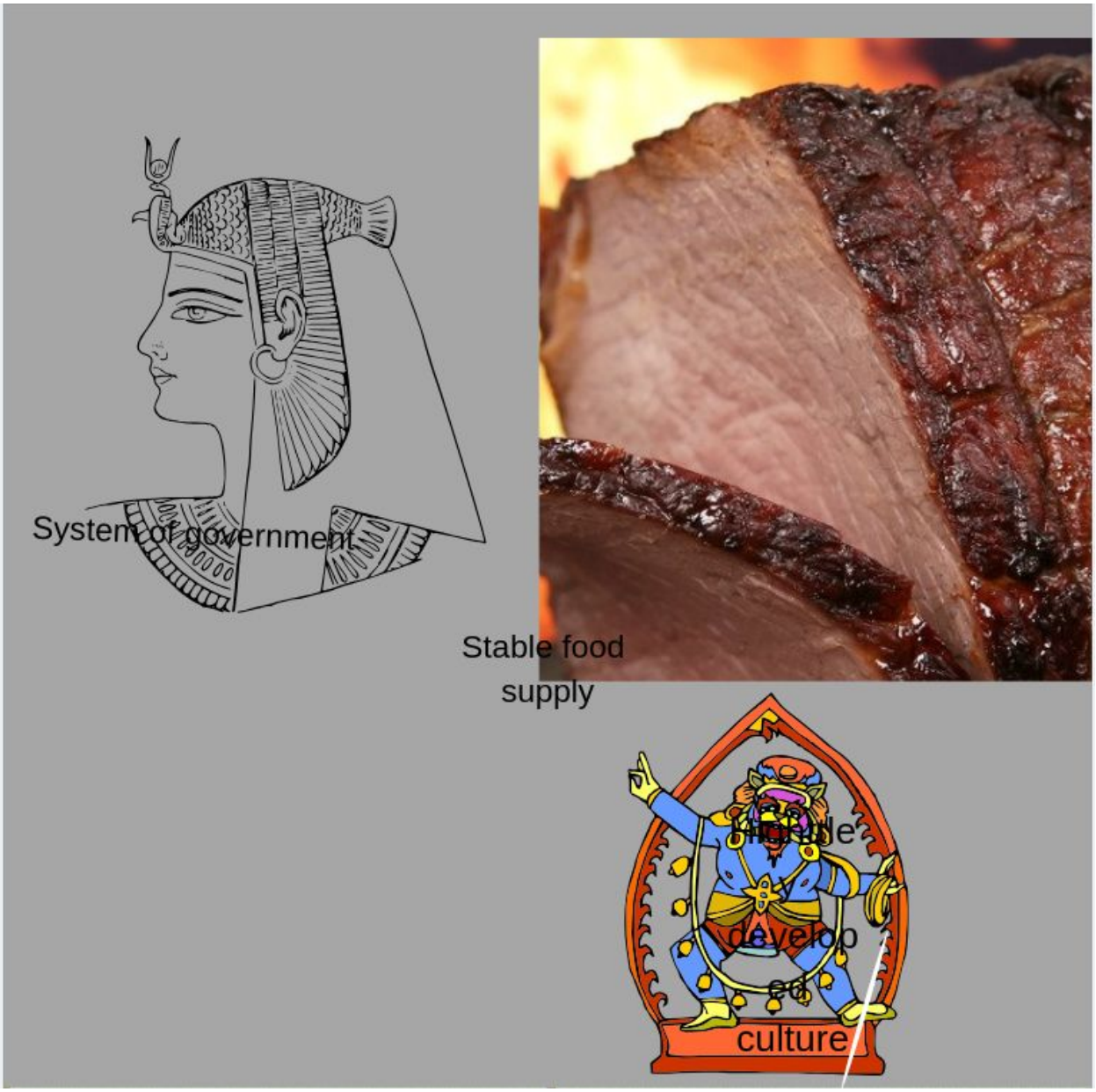

DESCRIPTION
THE PICTURE
OF ANXICENT
EGYPET

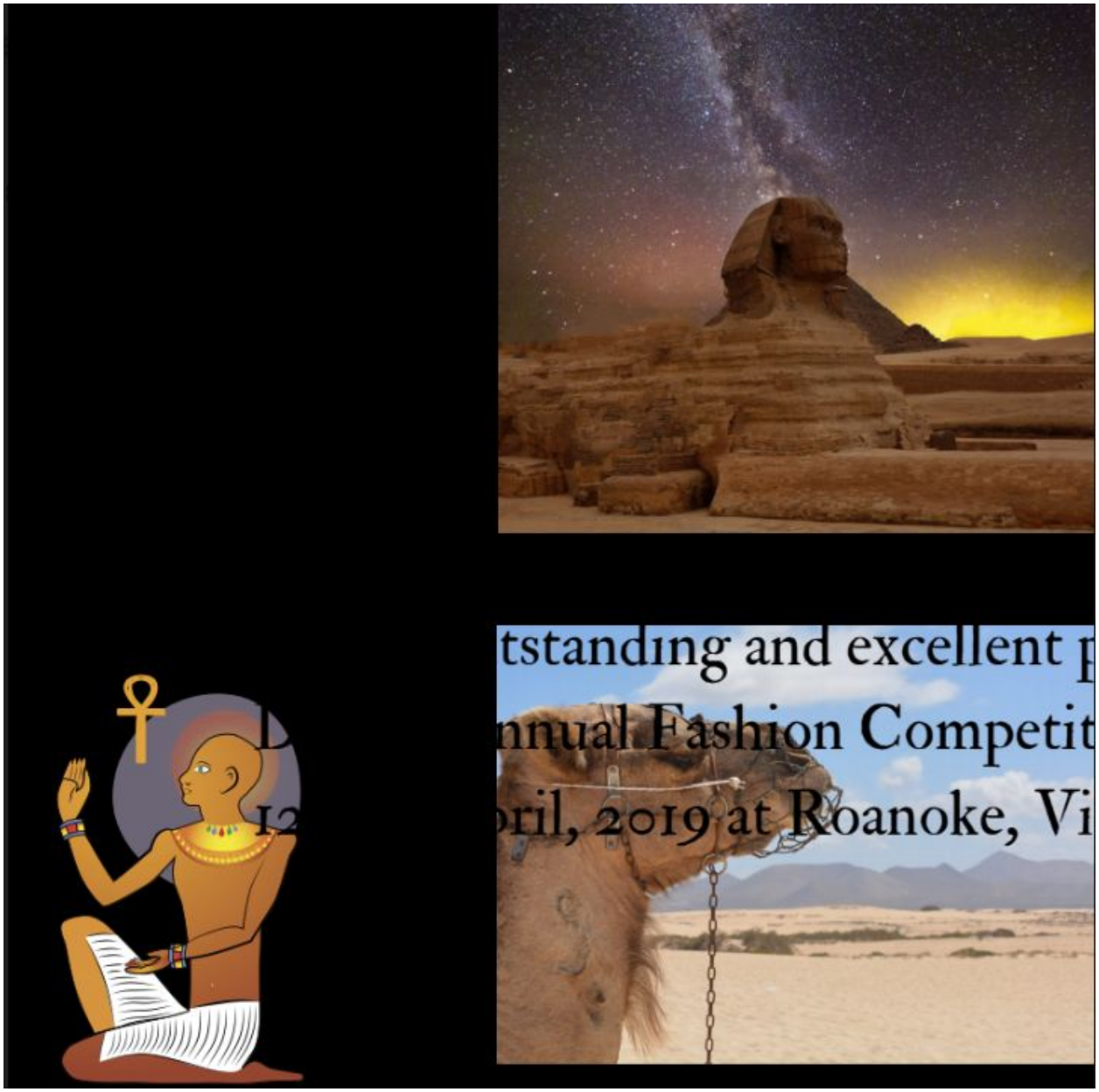

is awarded to
ANCIENT
EGYPT
dd a heading

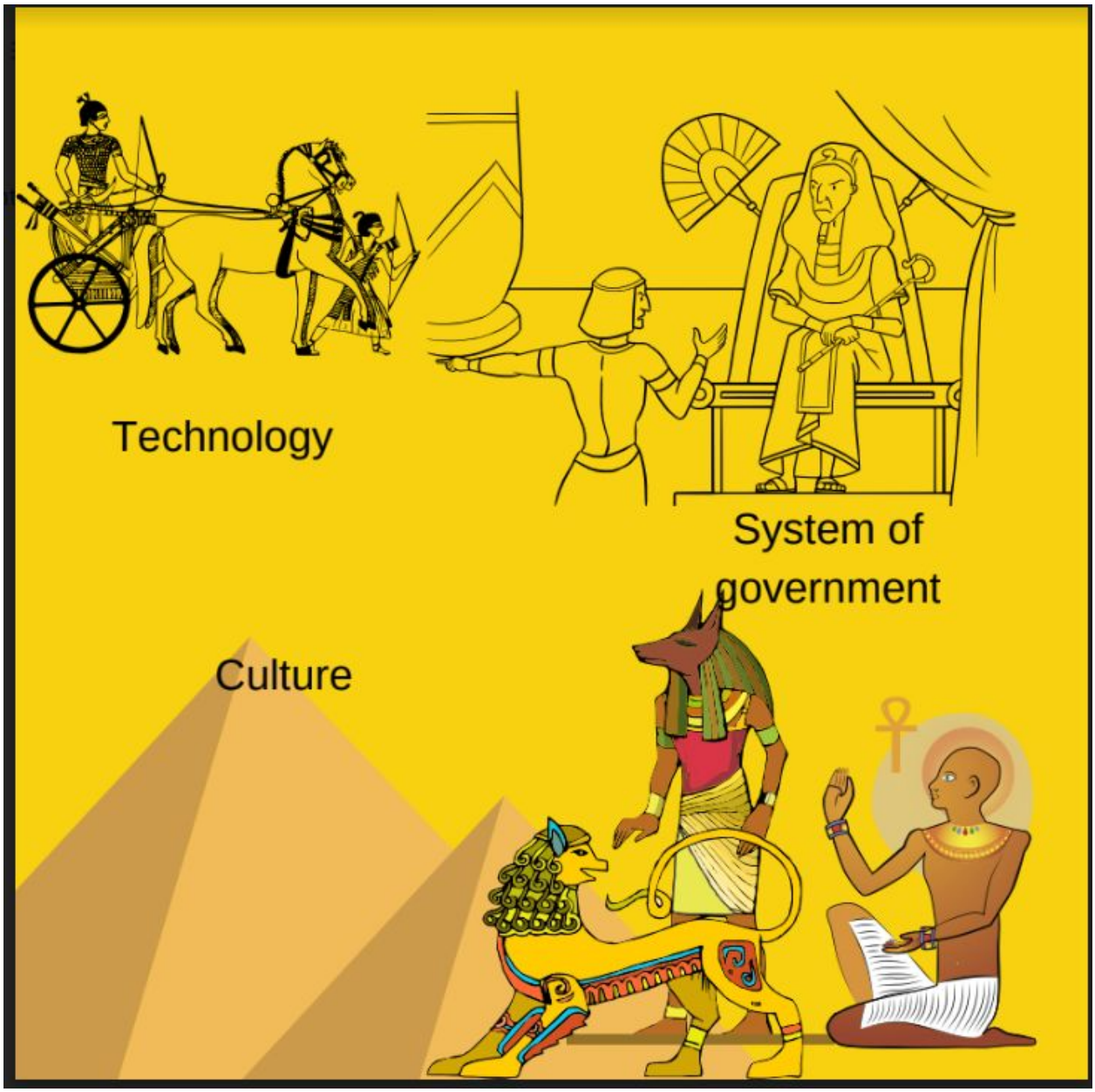

SOCIAL
STRUCTURE

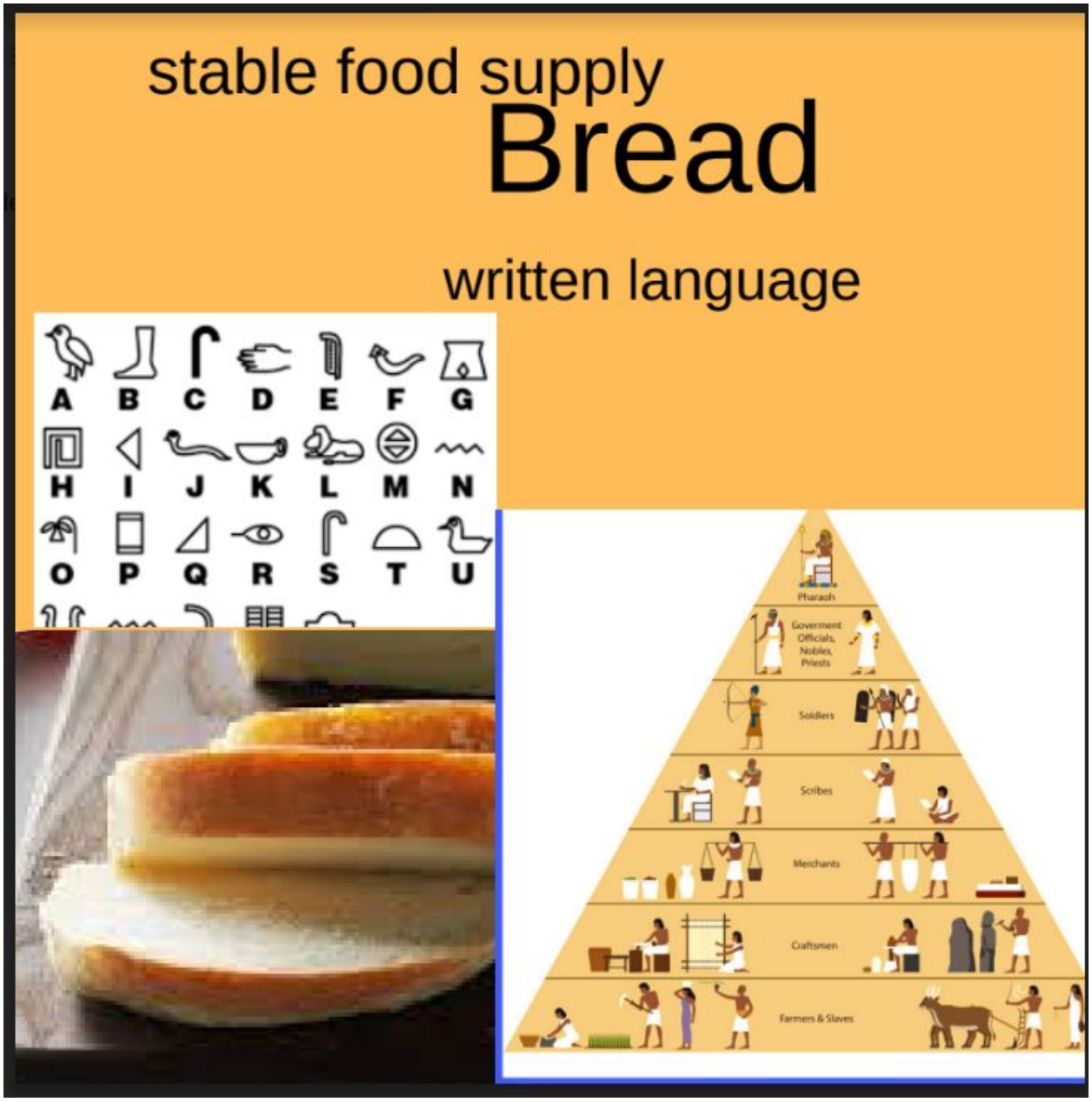

written
Language


Stable food supply

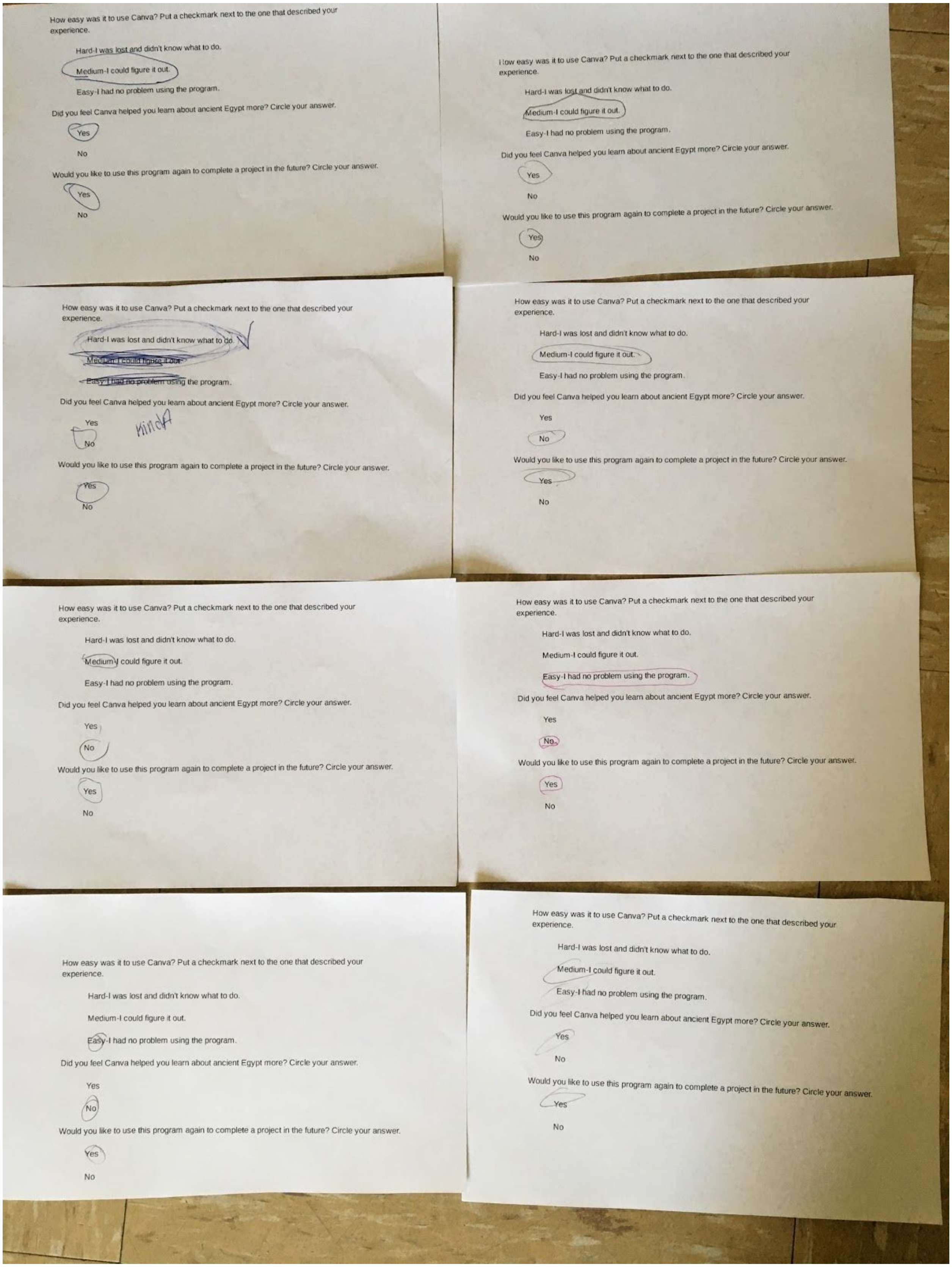

System of government
Stable food supply
Highly developed culture


tstanding and excellent p
nnual Fashion Competit
ril, 2019 at Roanoke, Vi


Technology
System of government
Culture


stable food supply
Bread
written language
A B C D E F G
H I J K L M N
O P Q R S T U
Pharaoh
Goverment Officials, Nobles, Priests
Soldiers
Scribes
Merchants
Craftsmen
Farmers & Slaves

APPENDIX C


How easy was it to use Canva? Put a checkmark next to the one that described your experience.

Hard-I was lost and didn't know what to do.

Medium-I could figure it out.

Easy-I had no problem using the program.

Did you feel Canva helped you learn about ancient Egypt more? Circle your answer.

Yes

No

Would you like to use this program again to complete a project in the future? Circle your answer.

Yes

No

How easy was it to use Canva? Put a checkmark next to the one that described your experience.

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Easy-I had no problem using the program.

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Yes

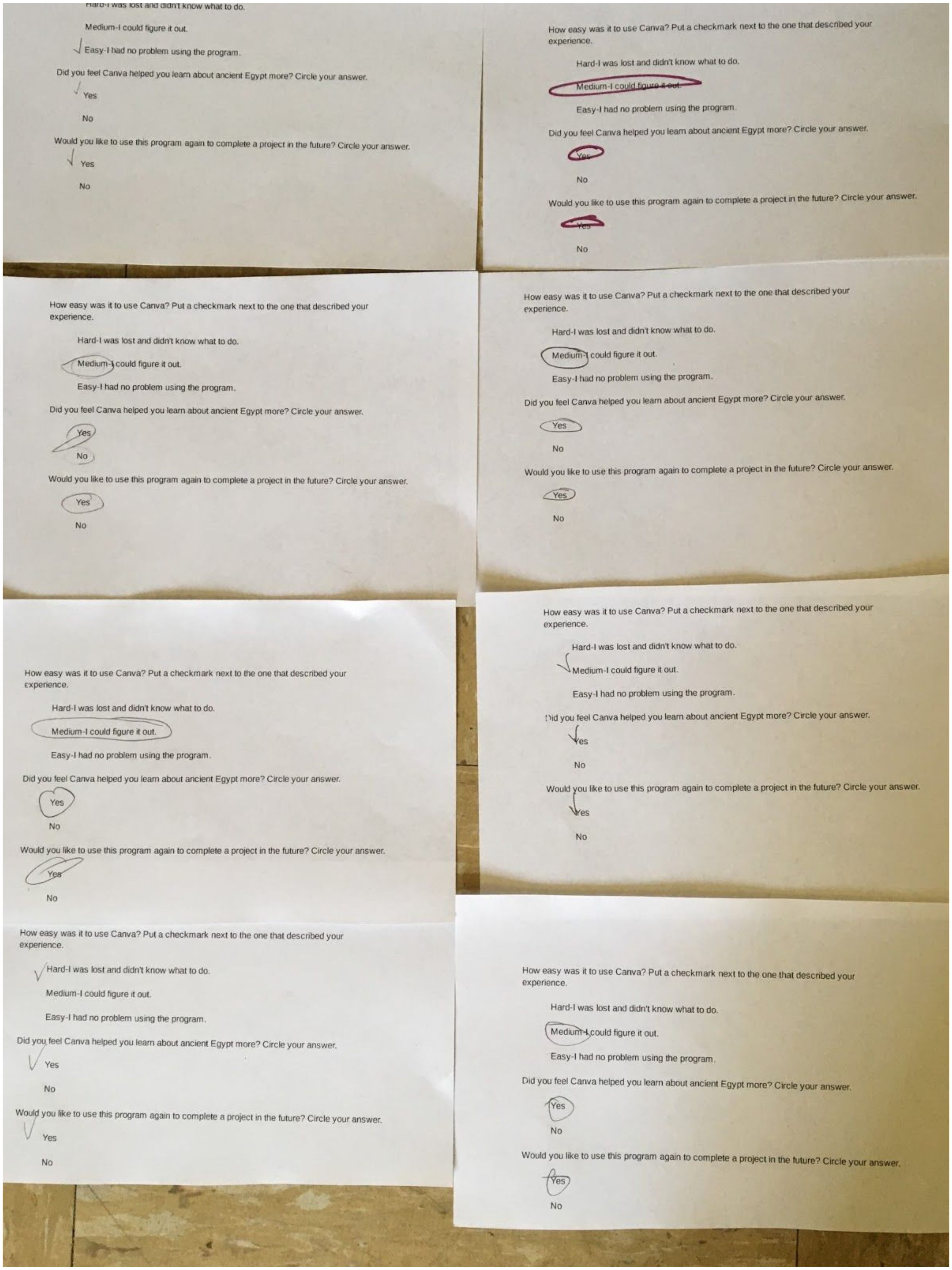
No

Would you like to use this program again to complete a project in the future? Circle your answer.

Yes

No

kinda



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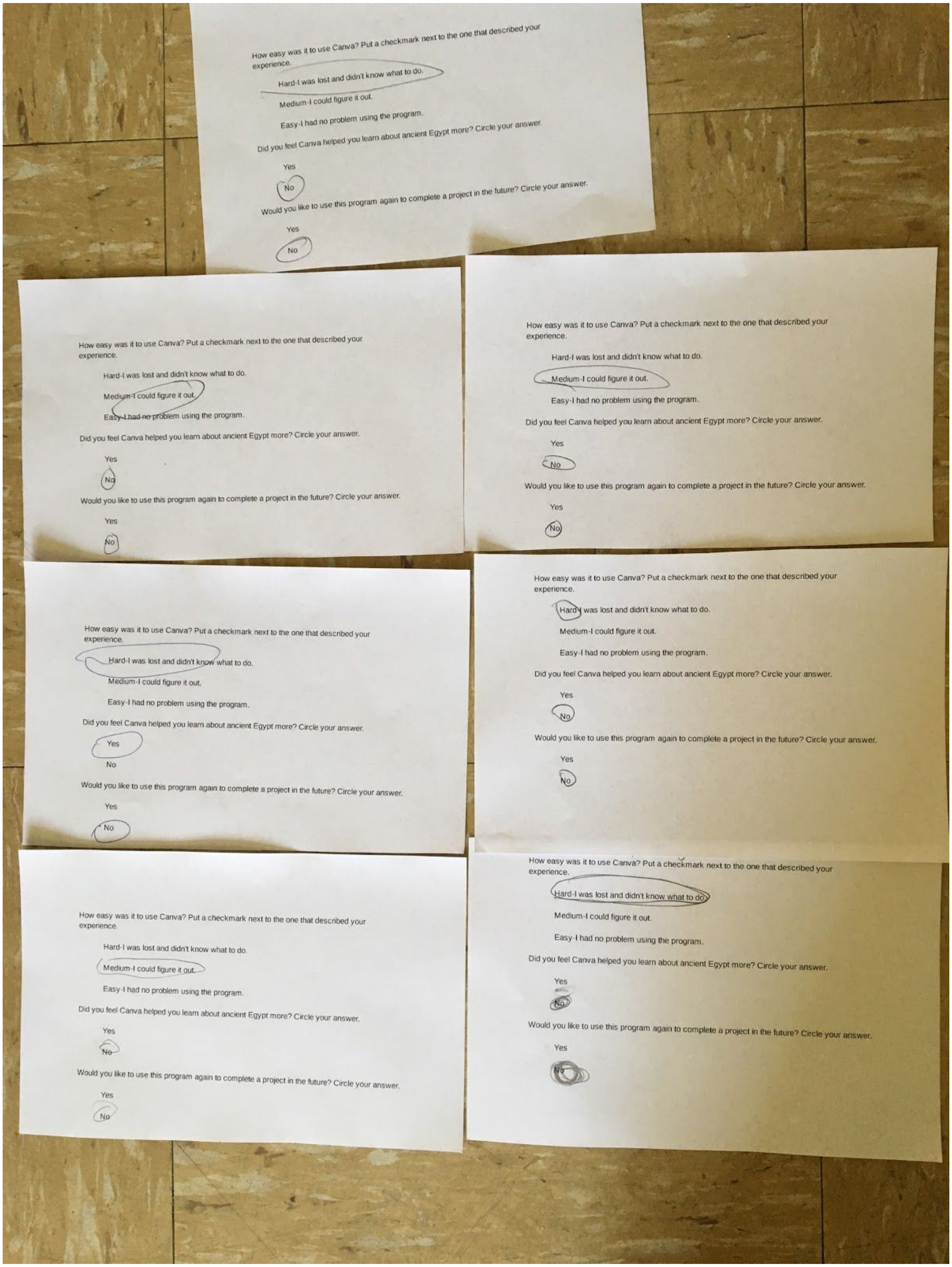
Yes

No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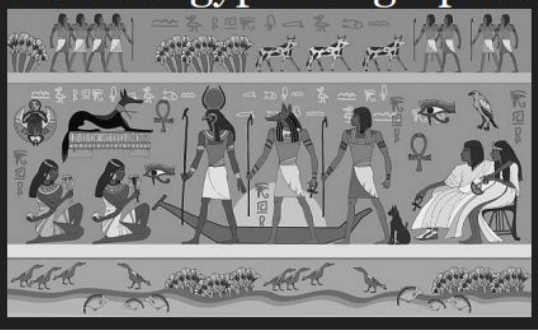
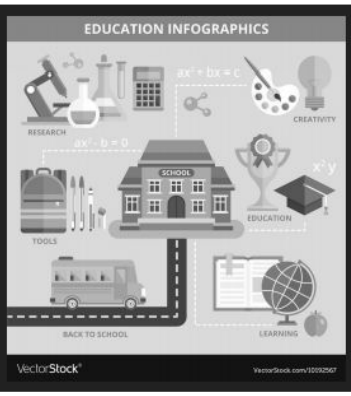
Yes
No
Would you like to use this program again to complete a project in the future? Circle your answer.
Yes
No

APPENDIX D

Ancient Egypt Infographics





Directions

1. You will be creating your own infographic based on your studies of Ancient Egypt.
   a. If you need to refresh your memory you can take a look at this website (https://www.dkfindout.com/us/history/ancient-egypt/) or use your textbook online https://www.teachtci.com/
2. Once you have some facts you can use Canva to create your infographic
   a. Requirements:
      i. Use **three** characteristics of civilization (stable food supply, system of government, highly developed culture, written language, social structure, religious system, advances in technology) Use this link if you need more information: https://www.ysmithcpallen.com/sites/default/files/the_7_characteristics_of_a_civilization.ppt
      ii. One **creative** title
3. Finished? Download and email your final infographic to hgreenelsh@csumb.edu

Steps to using Canva

1. Go to www.canva.com
2. Sign up-type your name, select student from the drop down menu
3. Log in using your Google account
4. Choose a design
5. Choose a template
6. Start creating!

Remember the Requirements

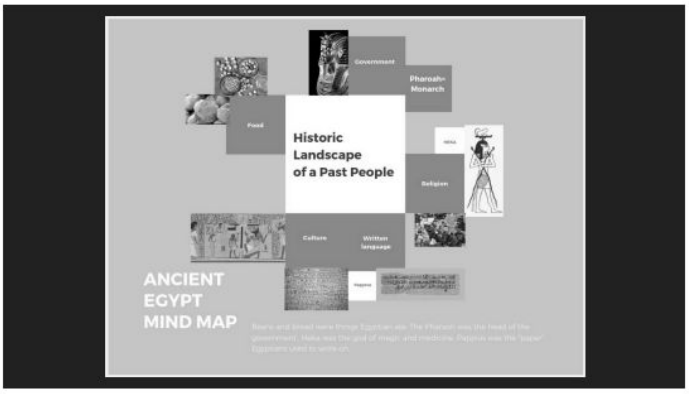
1. **Use three** characteristics of civilization (stable food supply, system of government, highly developed culture, written language, social structure, religious system, advances in technology) Use this link if you need more information: https://www.ysmithepallen.com/sites/default/files/the_7_characteristics_of_a_civilization.ppt
2. One **creative** title
3. **Three** sentence description
4. Email your finished work to me:

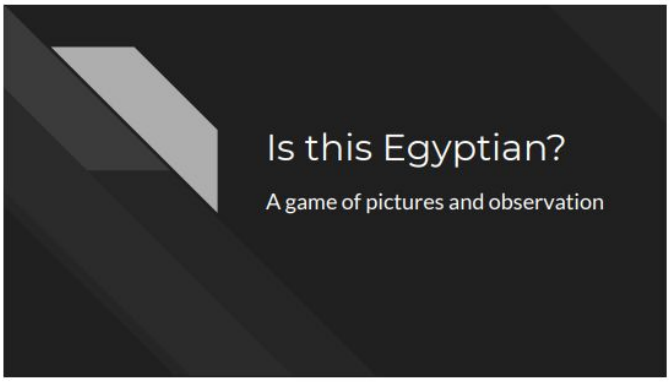
hgreenelsh@csumb.edu

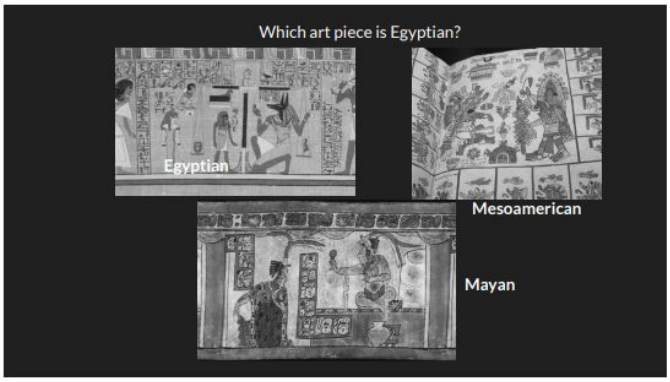
Weebly website

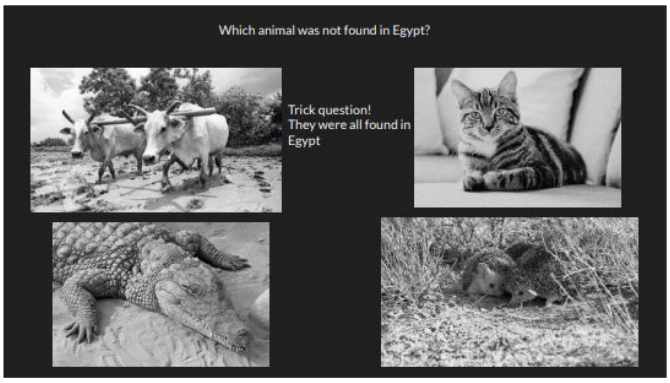
Here is the website to access your classmates' infographics:

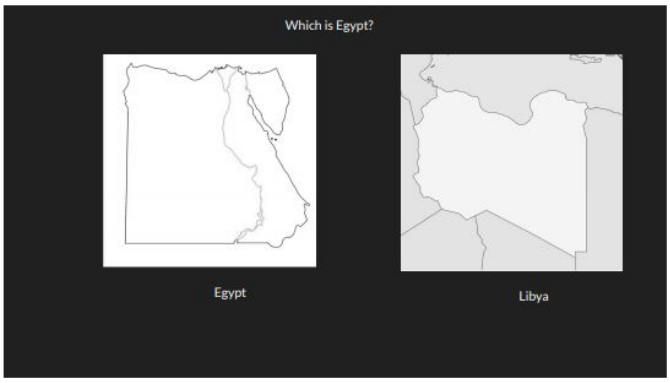
capstoneproject22.weebly.com



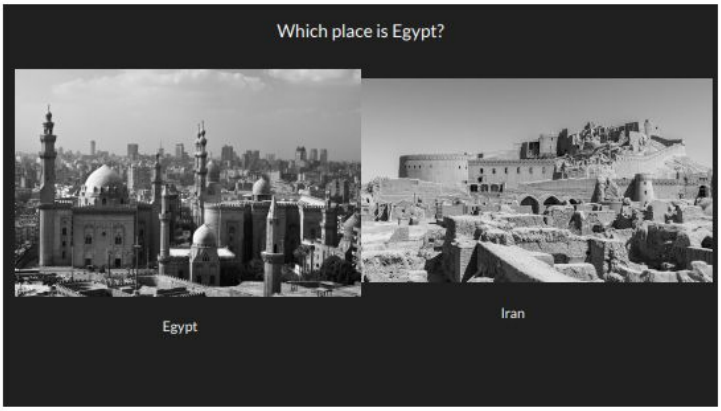

Is this Egyptian?
A game of pictures and observation


Which art piece is Egyptian?
Egyptian
Mesoamerican
Mayan


Which animal was not found in Egypt?
Trick question!
They were all found in Egypt


Which is Egypt?
Egypt
Libya


Which is Egyptian writing?
Egyptian
Mayan


Which place is Egypt?
Egypt
Iran

APPENDIX E

Capstone project

BLOG ABOUT CONTACT

Ancient Egypt Infographics



Questions to think about

3/29/2019 0 Comments

Author

This is a place to comment on Ancient

How to comment

3/29/2019 0 Comments

1. Click below the infographic on the word "comments".

2. Type your name and a comment in the box. You do not need a website or email.

3. Submit the comment and it should be shown below the infographic.

0 Comments

Infographic 2

3/26/2019 1 Comment