Technology Planning Paper

Harford Hills Elementary School

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Technology Planning Paper

**Virtual Field Trips**

In this paper, I am introducing the idea of using virtual field trips to enrich or extend current curriculum in an elementary school setting. Virtual field trips are online experiences that take place from right inside of the classroom. They allow students to connect with other people and places all over the world. Virtual field trips give students the opportunity to see places they might never experience in real life or talk to experts on specific content being addressed in the classroom. This paper will provide information about current issues at Harford Hills Elementary School located in Baltimore County and how we might overcome those issues and incorporate virtual field trips in order to transform instruction in ways traditional teaching methods are unable to do.

**Analysis of Current Situation**

**Perceived Attributes**

The use of virtual field trips in the classroom can be such an engaging and enriching experience for students of all grade levels. I believe that the teachers at my school can understand the benefits of using them through the perceived attributes.

In terms of trialability, virtual field trips are able to be used in the classroom once or twice before committing to using them often in a classroom. Teachers have the opportunity to plan a virtual field trip to fit best into the curriculum, schedules, and content areas. There are several online resources that have virtual field trips archived, which means that they were once live and were recorded so that teachers could use them again. Teachers could start by using prerecorded virtual field trips before they used live ones (ones where they actually got to speak to the expert in a certain field, for example). Many of the virtual field trips are streamed through the use of Skype. If a teacher wanted to gain more knowledge or experience using Skype before actually trying to connect with an expert on a given topic, he/ she could use it to connect with another classroom in their own or different school building. This way, teachers gain experience with the technical part of using Skype, and if a problem arises, they could attempt to fix it before jumping into using live virtual field trips from around the world.

The observability aspect is present after using virtual field trips. This online resource is meant to extend and connect to the given curriculum provided by Baltimore County Public Schools. Teachers would be able to tell if his/ her students gained more knowledge on a specific topic simply by having a conversation after the virtual field trip. Ultimately, the goal would be for students to know or understand more about a topic than they knew before from just the resources provided in a textbook or from a lecture.

Teachers should clearly be able to see the relative advantage of using virtual field trips. Aside from enhancing curriculum, they can also replace actual field trips. Teachers can definitely see the advantage of not having to worry about the hassle of finding transportation and chaperones and dealing with payment issues. Most teachers plan one field trip a year due to the cost, but virtual field trips are free to use and more than one can be planned during a school year. They also allow students to “visit” places they may never actually get the opportunity to travel to in real life.

The use of virtual field trips is not a complex matter and they are compatible with other regular field trips. Teachers do have to be willing to put in the time to find ones that match their curriculum, and make sure the timing aligns, but the actual process of connecting to the field trip is not very challenging. Virtual field trips give teachers a wider variety of topics to choose from compared to regular field trips since they can really connect to any place in the world (if they can find them). Teachers would have to have to know the content in their curriculum in order to plan ahead for the use of a virtual field trip.

**Ely’s Conditions**

There are eight aspects of Ely’s conditions, which are dissatisfaction with the status quo, knowledge and skills, availability of resources and time, rewards or incentives present, participation, commitment, and leadership. In regards to using virtual field trips, I believe most teachers feel like time is the ultimate issue when using them in the classroom. One way to overcome that issue is to provide teachers with time during grade-level planning days and/ or during mandatory faculty meetings to search for virtual field trips that relate to their curriculum. The principal is committed to this innovation by supporting teachers who want to use virtual field trips in the classroom. During a discussion I had with her, she mentioned that she is okay with teachers taking two days to complete a one-day lesson as long as the virtual field trip connects and enhances the students’ learning. My goal is that teachers show commitment to using virtual field trips once they see our principal being committed to the enrichment of our students’ curriculum at Harford Hills Elementary.

After talking with many colleagues, it seems like many teachers like the idea of using virtual field trips. They agree that some curriculum can be better understood when they are able to connect students to real-world experiences, which is exactly what virtual field trips do. In terms of actually participating in a virtual field trip, one condition that I do think is currently lacking is the knowledge and skills. One way to overcome this obstacle would be to offer a professional development opportunity to teachers to teach them how to navigate the Skype website, and then give them time to explore on their own. Providing teachers with a clear understanding of what the professional development opportunity would offer and why they should use virtual field trips would be an incentive for some (hopefully most) teachers. Refreshments and snacks could also be a way to spark interest. Also, making myself available to help teachers one-on-one could help with this condition as well. Teaches are already provided with a variety of resources to use in their classrooms, but virtual field trips are free and a necessity if they want to move above and beyond the current curriculum. I believe if I provided time and the right training with the help of my STAT teacher, and being as many of my teachers are open-minded, they would be on board with trying this new innovation in their classrooms.

**ACOT Model**

The five stages of the ACOT model are Entry, Adoption, Adaptation, Appropriation, and Invention. The Entry stage is similar to the substitution level of the SAM-R model. At this stage, teachers are using technology to substitute pencil-and-paper methods, but are not using technology to enhance or extend student learning. The act of using technology is not done in a purposeful way and is only being used because it is present in the classroom. At the Adoption stage, teachers are still using technology as a substitution for other classroom methods; however they are using the technology as a supplement or to support text-based learning. The task is not being improved in any way with the use of technology. At the Adaptation stage, teachers are using technology to improve functionality. For example, teachers may use Microsoft Word to write a paper because their students are able to type quicker than then can write and it is easier to change or edit their work. The teacher needs to understand his/her students’ strengths and weaknesses. At the Appropriation stage, teachers and students are using technology to generate new tasks that they were not able to do before or locate resources that enhance or extend the lessons being taught in classroom. At the Invention stage, teachers are using technology to redefine their lessons in the classroom. In this stage, tasks could not be completed without the use of technology.

At Harford Hills Elementary School, I believe that as a whole, the school falls between the Adaptation stage and the Appropriation stage. There are not any first-year teachers at my school and the teachers have gotten used to having one-to-one devices in their classrooms, meaning that each child has his/her own device. I believe that given enough information about different tech tools available, the teachers at Harford Hills Elementary School are open to trying new things in their classrooms, especially since the administration is supportive of them doing this.

One specific individual in my school who I believe is at the Appropriation stage of the ACOT model is one of my third grade teammates. This is evident most commonly in math, when she uses online tools and games to enhance her math lessons that she teaches in her classroom. The students are engaged, and some of the games provide great opportunities for visual learners. Most of the games she uses are not able to be duplicated using any other hands-on manipulatives, so students are only able to access this learning experience through the use of technology.

Another individual in my school, a fourth grade teacher, is most commonly at the Adaptation stage of the ACOT model. She has her students use Microsoft Word very often to type many of their writing samples. She believes students should know how to properly edit their work and make their writing better. She feels that using the computer to do this helps to make this process quicker and more efficient. Students are also required to type during the PARCC assessments, so she believes that having students type as much as possible helps them to prepare for the state-wide assessment. She also has a new student in her classroom that does not speak English, so she is constantly using the translator tool through Google to help communicate with her. This expedites the process of communicating instead of using picture dictionaries, for example.

One final individual, our music teacher, is at the Entry or Adoption stage of the ACOT model. She often has the students use their device to listen to songs or rhythms that connect to the lesson she is teaching. Because each student has their own device, she usually has each one of them listen individually, however she could easily do this as a whole group. I believe that her curriculum doesn’t allow for many creative ways to enhance instruction using technology, so she simply tries to use it whenever possible just because it is present in the classroom.

**Stakeholders**

Harford Hills Elementary is a small school in the town of Parkville, Maryland. Because of its size, there are three teachers on each grade-level team ranging from kindergarten through fifth grade, and approximately twenty other staff members without the title of a “classroom teacher.” There are a couple specific people who come to mind when thinking about creating change in our school through the use of virtual field trips. These people include teachers and administration. Specifically, I would like to enlist the help of my principal, the STAT teacher, and the media specialist to help me address what is missing in our school, and I would like to enlist all teachers to be active participants in using virtual field trips in their classrooms.

In order to first get my principal, our STAT teacher, and the media specialist involved, I need to be sure they fully understand what virtual field trips are and how to use them appropriately in the classroom. When they have a clear understanding of what virtual field trips are and how to locate resources online, they would be a better resource for other teachers in my school. I could do this by simply sitting down with these three individuals to teach them individually or in a small-group setting how to use the Skype program and why virtual field trips are fantastic and free ways to provide students with real-life experiences that extend or enhance curriculum without ever leaving the classroom. The roles of my principal, the STAT teacher, and media specialist would differ, but ultimately the end goal would all be agreed upon—getting teachers to use virtual field trips to enhance student learning. The role of my principal would be to make sure teachers are using virtual field trips in meaningful ways that connect with current curriculum. Since I, personally, would not be available to come into classrooms to help teachers conduct a virtual field trip, the STAT teacher and the media specialist would be helpful in finding resources for teachers, coming into the classroom to help with the first use of a virtual field trip, and to help with technical issues that may happen.

After conducting interviews to several staff members about technology and virtual field trips, I think many teachers at Harford Hills would be willing to use and incorporate them into their teaching. One thing I would need to do is to hold a professional development at the beginning of the year to simply introduce what virtual field trips are and how they can enhance student learning. Knowing my staff, I do believe that once they begin using them, the student engagement and knowledge would be an immediate reason why they would continue using them. In theory, virtual field trips are meant to enrich student knowledge and provide students with real-life experiences from right inside of the classroom. Using part of a mandatory faculty meeting each month throughout the year would be a great way to keep teachers involved. A quick conversation during faculty meetings would be a great way to hear how other teachers are using virtual field trips and for teachers to share ideas with each other that they can take back into their own classrooms. Also, providing resources (when available) and refreshments during these meetings would be an incentive for teachers to attend the meetings.

**Plan of Action for Technology Planning**

**Broad Vision Statement**

In the 21st century, technology is ever changing and continues to globalize our society. With the use of technology, communication and collaboration are possible with virtually anyone. Teachers should strive to use technology to extend their own and their students' communication and collaboration outside of their classrooms. Technology should be used in a way that enhances or differentiates student learning in ways a textbook or a lecture simply cannot accomplish. Our hope is to create life-long learners who are globally-competitive and successful with the use of technology tools.

**Specific Innovation Vision Statement**

Technology provides unlimited opportunities to communicate, collaborate, and learn new things every day. In the 21st century, it is important for students to understand and implement these skills in order to be successful life-long learners. Through the use of technology and virtual field trips, students are able to gain a significant amount of new information. Virtual field trips provide visualizations, interactive simulations, and/or at times, communication opportunities with experts on a specific topic. Students will use this tool to enhance their learning from the inside of the classroom. Our goal is to expose students to real-life experiences and to enrich their knowledge about the world outside of their community from right inside of their classroom.

**Possible Issue Resolutions**

The use of virtual field trips can help to resolve a few issues. One issue they may help to resolve is the lack of background knowledge that some students may have. Another resolution virtual field trips may help to fix is students not having real-world opportunities. Teachers could use virtual field trips to provide students with information about why the content they are learning in the classroom is meaningful or important. Lastly, negative student behavior may decrease in the classroom with the use of virtual field trips.

Based on numerous reasons, students sometimes lack background knowledge on particular content. Demographics, location, financial family struggles are all factors to consider in regards to reasons why students do not have background knowledge on certain content or skills. Many students (from all grade-levels) learn about content in the classroom and find it hard to relate to because they know nothing about the particular topic. This happens when their families are unable to provide students with experiences outside of the classroom. Harford Hills Elementary School has a diverse group of students. The students come from a range of very low-income families to very high-income families. Some students experience several vacations a year, while others don’t ever leave their community. This causes issues for teachers in the classroom. Some students have a lot of outside knowledge, but others may not. Virtual field trips could be used in ways to provide that background knowledge about a particular topic before delving deeper into the learning in the classroom.

Students not having real-world experiences is also an issue in the classroom setting. Due to similar reasons for lacking background knowledge, some students are unable to have opportunities in the real world. Some students are not able to visit important and/or informative places (near or far), go on vacation, or are limited by their culture. This can limit their opportunity to make connections from the classroom to the real world. With the use of virtual field trips, students would be able to read or learn about certain topics in the classroom then connect to them in real life through the use of video conferencing. Although it’s not quite the same as being somewhere in person, students would be able to actually see some of the places they are learning about in the classroom. Virtual field trips can also provide students with opportunities to talk with experts on the topics they are learning about in school. This is a good way for students to see how the information they are learning is relevant as they get older. It’s important for students to understand that everything they learn is for a reason, and different jobs require different knowledge of skills. Virtual field trips can help to break through that boundary between real-life and school experiences and give students the ability to see why the use of this innovation is meaningful. Teachers who use virtual field trips in their classroom may see an increase in positive student behavior due to virtual field trips not being a common tool used and them being engaging and interesting for most students.

**Action Steps**

There are several action steps that need to be taken before, during, and after the incorporation of virtual field trips into classrooms happen. In hopes of starting this project next school year, there are some steps that must be completed before the end of this year, while others can be completed at the beginning or throughout the next school year. After planning out my action steps and talking with my principal, she has given me the “OKAY” to move forward with this school-wide innovation. She is excited for teachers to use virtual field trips in their classrooms and feels like they could be such an enhancing resource as long as teachers use them appropriately.

There are several action steps that need to be completed this year in preparation for next year. First, I plan to send out a quick survey in May 2018 to current teachers about the use or lack of use of virtual field trips in their classrooms. I plan to provide this through email, so that teachers can fill it out at their convenience. Teachers at Harford Hills are open to helping each other out, so I don’t think I will have any trouble getting the teachers to fill out a five-minute survey, as long as I explain why I need it and give them adequate time to complete it before I actually need the results. After I receive all the results from the survey or while I am waiting for all participants to respond, my next step is to complete a virtual field trip myself and reflect upon it. I plan to do this sometime in the spring of 2018. This virtual field trip will connect to some aspect of my third graders’ curriculum through the use of Skype in the classroom. The reason for completing this virtual field trip ahead of time is so that I can share my personal classroom experience with my colleagues before asking them to try them in their classrooms. I might also be able to identify any glitches that may occur while using them. The next action step for me to complete would take place over the summer of 2018. This would be to create a presentation through the use of PowerPoint or Active Inspire that I could eventually share with my administration and co-workers. By doing this, I would be able to pull out the pertinent information to include in the presentation and have more than enough time to make sure the presentation was accurate and complete before actually presenting it.

At the beginning of next year, my action steps continue during the teachers’ first week back to school. The first thing I have to do once we return to school for the 2018-2019 school year would be to meet with my principal and STAT teacher. During this meeting, I would be able to provide them with more in-depth information regarding virtual field trips, the use of Skype in the classroom, and also discuss the roles they would play in the roll-out of virtual field trips. I would provide this information by sharing with them the presentation I created over the summer. This way, I could also get my principal to approve the presentation so that I could share it with the rest of the teaching staff. Next, I would meet strictly with the STAT teacher, who I have already talked with in regards to helping me get teachers on board with using virtual field trips. This meeting would be very informal and would take place during the first teacher week back to school in August 2018. During this meeting, she and I could discuss how we can work together throughout the year to help support teachers using virtual field trips in their classrooms.

Once school begins there are not many other action steps that need to be completed. The remaining steps would be ongoing until the very end of the year. In September of 2018, I would ask my principal to schedule a mandatory faculty meeting (which was her idea) in order for me to share my presentation with my colleagues. At Harford Hills Elementary School, we do not have weekly faculty meetings, therefore when we do have them, teachers are usually not upset about having to attend. During this presentation I would ask my STAT teacher to help me share the information about what virtual field trips are, how to use them through Skype in the classroom, and why they would be important for students. At this time, I would also share my personal experience about completing a virtual field trip in the classroom from the previous spring. I think that after the presentation, teachers would obviously see that the buy-in would be how much virtual field trips can move students farther in terms of curriculum content that they were not able to do before. Once the presentation is complete, I would make sure teachers are provided with enough time leftover to create their free Skype account and to navigate the Skype website, giving myself and our STAT teacher time to answer individual questions that may arise. I would also ask my principal to speak about the “lack of time” piece that is usually the problem for most teachers. After talking with her, she agreed that she wants teachers using virtual field trips in appropriate ways to enhance the Baltimore County Public Schools’ curriculum and enhance student engagement and learning. She has made it clear to me that she is okay with teachers taking two days to complete a one-day lesson if they plan to use a virtual field trip in a meaningful way to connect what the children are learning in the classroom to life outside of school. After teachers attend this professional development meeting, the next action step would be to have teachers effectively use virtual field trips in their own classrooms. This action step should be ongoing throughout the year. As teachers incorporate virtual field trips into their teaching, I plan to make myself available to answer questions throughout the year. Because I wouldn’t necessarily be able to help teachers during an actual connection to a virtual field trip, my goal would be to have my STAT teacher available to come into classrooms if asked. She works very hard to make herself available to support teachers whenever they ask her to. Another ongoing action step that I would take is to ask my principal to designate just a few minutes during each of our (approximately) monthly faculty meetings for teachers to share ideas and positive and negative experiences with using virtual field trips in their classrooms. At the end of the year, my final action step would be to provide teachers with a final survey about the use of virtual field trips throughout the school year. I would want them to share feedback on personal classroom experiences in regards to student engagement, student learning, and student behavior. I am hoping that this experience will be rewarding for both teachers and students and teachers will want to continue to use virtual field trips throughout the following school year.

**Exemplar Plans**

One exemplar plan that I thought was interesting was from Canutillo Elementary School Campus. I like this technology plan because part of their overall goal was to use technology in a way that promotes student-centered learning and problem-solving skills. They want to identify strategies to help them use advanced technologies with the hope of creating life-long learners in an ever-changing global community. I thought it was important that the author based the technology plan around the current school mission and educational goals and the state curriculum standards; however I do not think the vision and mission statements necessarily matched the technology plan. It seems as if the author included the current school’s mission and vision statements, but I think he/ she should have written and included a vision and mission statement which would include where they want to move towards as a whole school. Neither of these current statements included technology, so creating new statements with the inclusion of technology may be beneficial when explaining the goals. Lastly, I think they did a nice job organizing the timelines and actions. The tables included were clear and easy to read and were not cluttered up with too many words. Overall, I think the plan was written with a lot of thought and the ideas were clearly organized.

Another exemplar plan I liked was from Saints Peter and Paul Catholic School. This technology plan was different from the others in terms of the goals. I like that the goals surrounded the idea of students using technology to enhance their learning and understanding rather than the teachers using the technology for instruction purposes. I liked that many of their goals included skills that are still needed in today’s society. Using a computer to publish, keyboard, manage files, and create multimedia are all skills that we take for granted. These skills were taken out of the Baltimore County Curriculum, which I greatly opposed. These skills are necessary in so many jobs in today’s society, and taking them out of the curriculum put the task of teaching these skills on the classroom teacher. This takes time away from learning content in the classroom, which is why I think some teachers stray away from using technology when given the choice not to. I think the goals in this plan were clearly outlined with a clear expectation of how student achievement would be evaluated. Students were evaluated by grade level instead of a specific timeline of dates like many of the other plans I looked at. Essentially, this plan focused on students learning how to use the technology appropriately before using it to enhance or extend student learning. In order for students to use computers to learn, they must know how to use them first.