Addressing the Need for Technology in the World Language Classroom with Project

Based Learning WebQuests

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The purpose of the Capstone project was to assist the World Language teachers at North Paulding High School (NPHS) design, develop and implement an instructional technology Project Based Learning (PBL), specifically a WebQuest, in order to bring the World Language classroom into the 21st century. I saw the need to implement meaningful use of technology in the classroom as a great tool to maximize student achievement, engagement and enhance their critical thinking skills. During the development stages of the Capstone, three of the six World Language teachers showed interest in developing and implementing this task with their students.

The teachers who decided to participate had at their disposal a computer cart, the use of the Media Center and the school's computer labs. The student body of a World Language classroom is composed of all grade levels at the school, from 9th – 12th grades, and these students are at different stages of their language acquisition skills. In my honors classroom, most of the students are classified as gifted and high achievers, and I believed that an instructional technology PBL would be a great way to challenge these students by utilizing technology in a meaningful way. I focused my WebQuest on a cultural connection. Cultural practices are usually overlooked or take a backseat to grammar and vocabulary, however, I saw the opportunity to include all of these concepts into one cultural project where the students would learn grammar and vocabulary with a cultural focus.

My goal with this Capstone was to show an increase of meaningful use of technology in the classroom that included real-life tasks, developed critical thinking skills and increase student achievement.

Description of Capstone Experience

The initial stages of the implementation of this Capstone project took place during pre-planning week at NPHS. During our first Professional Learning Community (PLC) meeting the World Language teachers were given a survey that focused on their knowledge and understanding of technology-based PBL. I discussed with them that the focus of the implementation of this strategy was to improve the use of technology in the World Language classroom meaningfully, and that the purpose was to improve student achievement in this content area. When the survey was completed, I then took this information and conducted research on best practices for design, development and implementation of instructional technology in a World Language classroom. My ultimate goal for this project was to increase the knowledge of the World Language department as a whole on best practices on how to develop a meaningful technology-based PBL. One of the questions on the survey asked the teachers about their familiarity with Webquests, their responses were compiled to provide meaningful information on this learning task. During the same meeting, the teachers were provided with a task to complete before our next PLC meeting, to e-mail a list of topics that they will be addressing in their classroom during the next four weeks. This information was used to conduct research on each of the different unit topics provided by the World Language teachers, and to begin the design and development of the technology-based PBL.

With the survey responses completed, I took this information and created a PowerPoint presentation of the development of a Webquest as our technology-based PBL. Some of the teachers were familiar with the concept of a Webquest, however, their previous experience with the strategy has been not entirely technology-based. Most had

created handouts on paper giving the students questions to research on the Internet. Some of the tasks were developed around a unit concept, but the tasks were presented as "to-do" lists, geared towards grammatical concepts, with individual questions to answer and lacking purpose and cohesiveness. During our next PLC meeting, I presented on the development of a technology-based Webquest. Based on my research, I presented the development of a PBL that was focused more on the connection between Language Acquisition and Cultural Connections to the students own personal lives. I centered my presentation on the study conducted by Bell (2010), where the study explained that a PBL is most successful when it addresses the development of the students' critical thinking skills and incorporates real-life series of tasks.

One of the barriers encountered during the initial stages was planning time. Teachers did not have the time to co-plan due to the COVID19 restrictions put in place by the district. We worked around this by holding Zoom meetings between classrooms. During our meeting the teachers were provided with several examples of technology-based Webquests from a variety of subject areas. The teachers used these models to get some ideas on what their own Webquest might look like, based on their own unit's cultural concept. I was available to coach the teachers throughout the development stages of their PBL.

Another barrier encountered was that this project development was entirely on a volunteer basis, and out of the six World Language teachers, only three decided to participate in the program. This development, however, allowed me to focus more in depth into coaching those teachers who decided to implement the tasks, and as it was a small group of collaborators, we were able to meet in person with social-distancing protocols in

place. As a member of the Technology Committee, I was able to obtain most of the resources needed for the implementation of the Capstone project. My mentor is the Media Specialist, and I was able to reserve a computer cart for the duration of the development and throughout the implementation stage.

Two out of the three teachers who decided to participate in the program implementation, had expressed that they would need support with the technology component of the task. These teachers did not feel completely comfortable using Web 2.0 tools in order to maximize the use of technology in the classroom. This was a setback from the original plan, because a period of time that could have been allocated for implementation was diverted to coaching in the use of Internet tools. However, their willingness and enthusiasm made the task easier. The third teacher in our group only requested input on a needs basis. The heavily coached teachers will be referred here as Teacher 1 and Teacher 2, the needs basis teacher will be referred as Teacher 3.

By mid-September, I provided the participating teachers with a checklist to evaluate the Webquests samples previously provided. This checklist included evaluation questions on the meaningfulness of the task, how well it addressed the topics, student engagement levels and on the development of critical thinking skills. During our next PLC meeting we discussed their evaluations and I presented an exemplar Webquest that was at a 6 on the LoTi Levels standards of technology. Teachers had the choice to create a Web-based Webquest or a Hyperdoc for their technology-based PBL. Teacher 1 and Teacher 2 decided to follow the Webquest model for the development of the PBL, Teacher 3 decided on a Hyperdoc.

In order to be successful in the implementation of an instructional technology project, teachers must be highly digitally competent so they can communicate their expectations to their students clearly, it is essential that teachers become the experts on instructional technology PBL in order to achieve student engagement and develop critical thinking skills (Renau & Pesudo, 2016, p. 27), therefore, I held a series of coaching sessions with the teachers where we developed the introduction, objectives, the task and the process of the PBL. The Web-based PBL were hosted on Weebly.com, a free to use website developer, while the Hyperdoc user hosted on the school's server. The Web-based PBL included a final video product for the students to complete. The task of the PBL was for the students to become "real-life" International Reporters and chose from three topics: Music, Food and Holidays. The students collaborated with those of the same topic during the research stages of their PBL but had to record and present their final project topic individually, or with a partner of another task. Students presented either their own topic stand-alone, or with a partner based on Music and Food combined or Food and Holidays combined, etc. During the development process, I met with each individual teacher and assisted them on creating their Web-based Webquest. As a coach, I provided assistance on the layout of the website, embedding videos, posting documents, etc. Also, I ensured that the PBL included Assistive Technology such as text-to-audio capabilities and recording instructions. The teachers provided the contextual information for the research, such as website links and documentation for the students' research, instruction on how to proceed and co-planning with individual students. This was important because teachers can sometime provide ambiguous directions to projects therefore leaving the students without a clear vision of the task, process, evaluation, and final product, and if we want students to

perform at maximum capacity we should provide them with a clear vision with high

expectations of what we are asking them to do (Yazdanpanah, 2019).

The first day of implementation Teacher 1 asked if I could assist throughout the

process. We both have the same planning time, so this was a barrier to cross, fortunately, a

Technology Committee member colleague volunteered to cover my class for a period of

time. Students were encouraged to utilize their own devices because some of them voiced

that they felt more comfortable with their own. I observed first-hand the level of

engagement of the students in the class, there were many questions at the beginning but

once Teacher 1 had covered all the questions, the teacher became more of a facilitator than

a lecturer, which was one of my goals throughout this process to see during the

implementation phase of the project.

I provided an end of the project checklist to the teachers to prepare before our

meeting. I met with each one of the three teachers individually to record their experience

with the project. They expressed that the main obstacle during implementation they faced

was technology issues. The Internet connection was not fast enough or sometimes not

working at all. Contingency plans had to be put in place, such as instead of using the

wireless laptop cart, teachers would reserve the computer lab for a day, or send individual

students to the Media Center with passes. COVID19 was a major issue. Students had to be

quarantined for two weeks at a time and contact tracing would almost empty their

classroom for days. Although the overall report of the PBL implementation was positive,

teachers expressed feelings of frustration and being overwhelmed because of all of the

restrictions due to the pandemic, students being out of class for a long period of time and

them having to cover classes for colleagues that had to be out due to being sick with the

virus. I am very thankful for the support and enthusiasm that these participating teachers showed developing, designing and implementing this project during such a difficult time in their careers.

Discussion and Reflection

I learned several lessons from implementing this Capstone project at NPHS. First, at the leadership level is that it does not matter how innovative an idea may be, there will not be enough time for everyone that may benefit from it to participate and collaborate. The teachers that participated took the time to actively collaborate with each other and with me on a regular basis after the decision was made to work together to implement our Webquests. One must be patient with colleagues while implementing new technology and new instructional strategies. Coaching colleagues can be a stressful task, and one must possess and choose different personality traits to collaborate with different members of the faculty.

Technology facilitation can be frustrating at times for teachers that are not familiar with instructional technology strategies and troubleshooting. I had to realize that everyone involved in the process of designing from beginning to end a web-based technology rich PBL was at a different stage of developing their technology skills, and that some colleagues will need more collaboration than others (PSC 1.2/ISTE 1b). With my disposition, I was able to ease tensions with colleagues in the development of high technology inclusive tasks by providing reasoning and pointing out the benefits of tasks that are technologically rich.

I was able to utilize the skills that I learned throughout the development and implementation of the Capstone project to coach and facilitate such strategies for teachers to use in the classroom to maximize learning time and student engagement, and I provided

experiences that were aligned with the technology standards (PSC 2.1/ISTE 2a). Through the use of Web 2.0 tools, such as Twitter and Instagram, we collaborated through communication and discussions on what would be the best way to serve our students.

With my knowledge of the Visual Design Principles [Proximity, Alignment, Repetition, Contrast] I coached other teachers and faculty members on how to design web-based PBLs that are appealing to all senses. I developed several technology tasks that are easy to follow during the performance of the task (PSC 2.3/ISTE 2c). I coached others into implementing technology projects and tasks that are based on the principles of ADDIE (analysis, design, development, implementation, and evaluation), which are consistent with all areas of the creation of a Multimedia product from the analysis to the evaluation of the product (PSC 2.6/ISTE 2f). I was able to coach other teachers in the development and implementation of a web-based PBL by developing checklists in order to evaluate the progress of the tasks that focused on the meaningful use of technology in the classroom, in order to optimize the use of time and implement research-based strategies to maximize student achievement (PSC 5.3/ISTE 4c).

Another strategy used was how to approach a coaching session with teachers and how to deliver PLDs that were meaningful and useful to teachers. I was able to evaluate and reflect on, not just my own professional practice and dispositions, but for other teachers as well, because of the coaching strategies that I learned leading to the implementation of this Capstone project. I was able to assist and evaluate other teacher's performance, while improving my ability to effectively model and facilitate technology-enhanced learning experiences (PSC 6.2/ISTE 6c).

I discovered that some assumptions that I had going into this project did not materialize. For example, I believed that I would have more participation from colleagues, and that my enthusiasm would translate into a high participation rate, however that was not the case. I am extremely grateful for those teachers who participated. I was also counting that the technology in the school would be reliable, and for the most part it was, however, issues with device authorization made it difficult to access certain websites, videos and research papers that were needed. COVID19 was particularly challenging. Teachers were understandable skeptical to collaborate, attend meetings (even through Zoom) and learn a new task. Even with these challenges I believe that the Capstone project development and implementation was a success.

Something that I would have done differently is to ensure a higher level of participation beforehand, gather more support from the administrative team and county level collaboration. The feedback I received from the participating teachers will make it more appealing to other teachers to implement these strategies in the future.

Recommendations

Some recommendations I would give to others who might attempt this task in the future is to ensure the gathering of resources early on. One should make the number of teachers willing to implement these tasks matches the level of working-order devices and that the administration provides support when block websites appear. The person in charge of this implementation should provide a list of the Web 2.0 resources needed to successfully complete the tasks, an also, as I did, make sure that the websites are vetted for students in a classroom setting, then provide the information to the person who has the authority to make them available.

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