Design Project:

Using Video To Deliver Content Design

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**Key Frameworks**

For our design project we created a learning environment to enhance K-12 educators’ understanding of the value and practical aspects of utilizing video media formats to deliver curriculum content. Our aim is to increase educators’ familiarity with the different tools available to them and the pedagogical validity of these tools. To accomplish this we have created a community of practice within Schoology, a learning management system. The community of practice website houses a bank of academic resources, lesson plans, links to interactive sites that supplement on-campus classroom environments, and embedded videos that can be used by K-12 educators in order to enhance performance in selecting and using educational videos. Educators will also be able to contribute to the community through discussion and by adding useful resources and videos of their own. Recognizing the limitations surrounding the use of video we have included the capability to provide a critical review of the effectiveness of videos. In the resource section we have provided a checklist to determine the effectiveness of a video based on our research into best practices when using online video, including examples of using the checklist in lesson plan samples (Appendix A). We have also provided educators with direct links to educational frameworks and theories that will help them develop their understanding of the pedagogical concepts around video integration.

A community of practice refers to a specific model of dialogue-based learning (Chalmers & Keown, 2006, p. 109). In “Cultivating Communities of Practice”, Wenger, McDermot, & Snyder define a community of practice as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (2002).

Communities of practice share three common features: domain, practice, and community (Hew & Hara, 2007). Domain refers to a special area of interest. The domain of our community is the use of online video to deliver content in K-12 contexts.

Practice refers to a shared profession or expertise. Communities of practice are organized in a manner so that members learn from each other. As such, an effective community of practice is open only to qualified practitioners. Our community of practice will welcome K-12 teachers and administrators. Furthermore, research indicates that effective communities of practice are characterized by voluntary, not mandatory participation (Chalmers & Keown, 2006, p. 112). We have opted to host our virtual community of practice on Schoology, a popular free learning management system for educators.

Community refers to the relationships that exist within the group. The learning in a community of practice model is rooted in constructivist philosophy; group members engage in discussions, build relationships, and share information (Chalmers & Keown, 2006, p. 112). Discussion will be facilitated by both community members and an inter-disciplinary, multi-grade level team of K-12 educators who are knowledgeable in the domain of using online video to deliver content.

Our design of a virtual community of practice offers many benefits. Firstly, the asynchronous discussions afforded by virtual communities of practice allow participants time to reflect and interpret others’ ideas. Through reflection, participants are able to provide thoughtful and constructive feedback.

Secondly, virtual communities of practice tend to be non-threatening learning environments. In addition to having time to reflect before posting, participants are less likely to be intimated by a powerful physical presence in the room. In “The Hidden Messages in Computer Networks”, Sara Kiesler argues that sharing online can lead to a greater sense of anonymity, which causes people to focus attention on messages rather than each other (1986). An ancillary benefit to this sense of anonymity is that discussions tend to remain focused. Our community will also include rules of engagement and a reporting tool to encourage proper netiquette.

Thirdly, our design aims to reduce the stress and time it takes to search for appropriate videos. K-12 educators typically receive little time built into their teaching schedule to prepare lessons. Full-time K-12 educators in British Columbia, for example, are only guaranteed 90 minutes of preparation time per week (Canadian Teachers' Federation, 2013). Furthermore, K-12 educators often devote time before and after school to extra-curricular activities. Our group surveyed 93 K-12 educators regarding how they select online video for their classroom (Appendix B). The most common responses were by previewing videos themselves and through recommendations from other educators. Our survey results also revealed that K-12 teachers are spending a significant amount of time searching for videos. 36% of teachers surveyed indicated they typically spend 15-30 minutes searching for an appropriate video, while 17% spend 30-45 minutes on average. Our design can help lessen this burden. For example, if a high school biology teacher knows they will be teaching the topic of DNA the following week, they can ask the community for recommendations instead of spending time previewing videos on YouTube. Furthermore, it has been shown that teachers who receive recommendations are more likely to reciprocate in the future (Hew and Hara, 2007).

Fourthly, a virtual community of practice affords professional development that is more economical than traditional models. Traditional models carry heavy financial costs such as travel, speakers, accommodation, and substitute teachers and create additional work for the teacher such as extra planning and time away from the classroom (Chalmers & Keown, 2006, p. 112).

Fifthly, research indicates that teachers find professional development more meaningful in a community of practice model (Chalmers & Keown, 2006). Participation in a community of practice fosters a sense of professional identity (Hew & Hara, 2007).

Sixthly, membership to virtual communities is not limited by geographical boundaries. A virtual community of practice affords inter-regional and cross-cultural collaboration.

**Benefits of Video**

Using video can help supplement a lesson, offer further understanding and help enhance memory. By using video within the classroom, teachers are able to promote visual learning. Visual learning teaches students to think clearly, and to process and organize new information. Students are able to prioritize and retain new information while also making connections to prior knowledge (Denning, 1992). Teachers who use instructional videos in their classroom report that their students are able to retain more information, understand concepts more rapidly and are more enthusiastic about what they are learning. With video as a component in a multi-activity lesson plan, students are able to make new connections between curriculum topics, and discover links between those topics, the world outside the classroom, and its relevance to their own lives (Denning, 1992).

Video can present visual information that is difficult to convey in other ways. One of the appeals of video is that it provides a sense of ‘being there’. By watching a video students can virtually transport themselves to different areas or eras that they might otherwise not see (Denning, 1992). This visual component allows teachers to reach children with a variety of learning styles. Video can provide visually compelling access to information for many learners with reading difficulties who might miss learning opportunities provided solely by print-based materials (Denning, 1992). Fatunmbi (2005) in his studies on the effect of video tape presentation showed that students are less likely to forget the information when they have seen and heard it. He also showed that there is improvement in the teaching – learning process through the use of video. Finally according to Fatumbi video can be used to provide real experiences in almost all fields of learning. Video can help repeat information already stated in an enjoyable fashion and students can easily discuss a common experience they have all viewed and shared.

Our design also asks K-12 educators to reflect on the affordances of online video and to consider what is the best way to deliver a video in the context of a specific lesson. Before the emergence of online video, showing a video to a class entailed showing the same video to the entire class, typically on a screen too small to view from the back of the room. Today, devices such as smart phones, iPads, and laptops allow students to watch in any place, to watch at any time, to re-watch, to pause and take notes, and to work ahead of class pace. In certain cases, handing control over to students can promote active, self-paced learning (Bergmann & Sams, 2012). Of particular interest are the mastery learning theories of Claytone Washburne and Benjamin Bloom. Our project will examine decades of research that indicates mastery learning, when properly implemented, is more effective than conventional classroom models (Khan, 2012). While implementation of mastery learning has historically been prohibitively expensive, the affordances of online video, including re-watching and allowing different students to watch different videos, facilitates both mastery learning and differentiated instruction (Bergmann & Sams, 2012). However, the K-12 educator must also understand that by putting control in the hands of students, they relinquish the ability to pause mid-video to clarify topics, to engage the entire class in a discussion, or to lead an activity.

While there are many benefits to including videos within the classrooms, educators need to recognize that using a video is not as simple as just pressing play. Videos are a powerful tool that can help supplement a lesson, but they should not be the entire lesson. It is important to remember that using videos should only help enhance the learning outcomes for students. For effective learning, students need to be aware of the affordance of an activity. In order for this to happen teachers need to provide a focus/reason for viewing, segment the video by pausing to allow for class discussion, and to conduct pre and post viewing activities that will allow the video to be integrated into the entire lesson (Sparks, 2003). As well, videos need to be relevant to the topic. Focus should be given to the relevance of the video topic to the viewer’s lives. This allows students to relate to the video on a personal level (Denning, 1992). If an educator is unable to place the importance of the video and highlight its relevance to learning outcomes and students’ lives then the use of video is ineffective.

As with any technology, there is always room for failure. Internet access may be slow, and some websites may not be accessible. Alternatively laptops, computers and projects, which are needed to stream videos, can also crash (Knill, 2007). In certain instances, some schools may lack the proper technological access and viewing videos may not even be an option (Juhasz, 2009). In other instances, disparity in personal access to technology may exist among students.

Using videos from popular websites, such as YouTube, can pose many implications. YouTube’s architecture supports the popular, and more often than not, the most popular and most liked video does not mean it is the best (Juhasz, 2009). Educators who do plan on using these websites need to be aware that there are two domains on YouTube, the professional and the amateur. Critical analysis and viewing the video ahead of time is necessary to ensure that content is relevant and appropriate (Zimmerman, 1997). Another area K-12 educators need to be concerned about is infiltration of commercial content into public education. Popular video hosting sites, including YouTube, subject viewers to commercials before viewing. Critics argue that YouTube’s design is purposefully messy in a manner that encourages viewers to watch as many commercials as possible (Juhasz, 2009). Although it may be unrealistic to expect zero commercial content, our design will seek ways to minimize the amount of commercial content students are exposed to. The stated research was taken into consideration when we created our video assessment checklist.

Another area in our checklist that K-12 educators need to concern themselves with is length of video. Our project will point to research that suggests student attention span is only 10-15 minutes long, and perhaps shorter for elementary school students (Khan, 2012). One innovative application that has built the concept of review within the video is zaption.com. Teachers are able to interject statements or questions directly overtop of any hosted streaming video, these may come as a note on the side, or the video may stop to allow the student to reflect on the question, and fill in a response. This innovation allows students to not only engage intellectually with the content, but also interact directly with the content, and to reflect on their experience in a personal way - allowing students who are shy or not willing to participate in the class, to actively engage. The responses are then collated and the teacher is able to review and assess student engagement. Part of our design is including a Web-Based Resources section that houses a list of community approved links.

The predominant technology that we intend to use will be video relevant websites. We plan to assess, evaluate and provide reviews of a variety of websites that offer videos. The websites YouTube and iTunes will be used for their popularity, easy access and abundance of videos. While websites such as Alberta CORE (Collaborative Online Resource Environment), TedTalks, Khan Academy and TeacherTube will be used for their educational relevance.

When selecting the webpage to carry out our design we considered several other sites that encouraged collaborative learning and communities, such as Weebly and Google communities. We believed Schoology would be the best choice for our design as its mission statement matched our intended goals. Their goal is to empower their users and to give educators the tools and connections to engage students more efficiently and improve educational effectiveness (Schoology, 2014b). In our design, by providing tools to increase efficiency for obtaining video and creating a community of discussion we are providing educators with the opportunity to enhance their performance in selecting and using educational videos.

**Key Concepts and Contexts**

Students live in a digital world, and often do homework while texting, *Facebooking*, and listening to music. Students have grown up with online video, and it is a form they are very comfortable with (Bergmann & Sams, 2012). But “digital natives” are not the first generation comfortable with video. Even before Internet, television taught students how to read video. Moore argues that Sesame Street and other programs have been shown to have substantial effects on learning (Moore, 1993). In the 1993 article “The Place of Video in New Styles of Teaching and Learning”, Moore argues that the first iteration of video in education, recorded university lectures, employed the reach of television but not the strengths of videos as a medium (Moore, 1993). Moore presented research up until 1993, and argued that all major studies contend that video is unsuitable as the sole medium of instruction. Rather, video should be used as a component in a mixture of media. Moore argued that videos two main advantages are the ability to take students to real applications through documentaries shot on location (e.g., students can watch falling of Berlin Wall) and the ability to illustrate concepts through animated computer graphics of a quality not yet available in most educational settings. (Moore, 1993).

Questions that we need to ask ourselves as educators and designers are how do we engage this new generation of learners in ways that have the most meaning for them; and how do we make sure that we are utilizing the new technologies in meaningful ways? One of the ways in which we believe these questions can be examined is through the medium of video. In the book *Curriculum 21: Essential Education for a Changing World*, Bill Sheskey talks about today’s students demanding a change in the classroom because of their ability to gather information faster than any other generation (Sheskey, 2010). With video, our students not only become engaged, but they also have access to visuals and experiences that were impossible only a few years ago through the use of tools like YouTube.

In a recent survey we conducted with 93 teachers, just over 90% of teachers use YouTube as a dominant resource for finding videos (Appendix B).  This is a result of YouTube being the world’s most popular video sharing site which reaches a global audience of over 1 billion unique viewers each month, and over 6 billion hours of content are watched each month. (http://www.youtube.com/yt/press/statistics.html). Through YouTube, a person can not only search out entertainment and cat videos, but they also have access to instructional videos on virtually thousands of topics ranging from makeup tutorials, fixing cars, cooking, and science experiments. Teachers can find videos demonstrating concepts and ideas for all subject areas and students are able to have access to images they wouldn’t have previously been able to see. A growing number of voices are arguing that new technologies (e.g., Google, YouTube, Facebook, Twitter) have fundamentally changed the way young people learn (Small & Vorgan, 2008).

Over the past decade, educators such as Salman Khan (Khan Academy) and Aaron Sams/Jonathan Bergmann (The Flipped Classroom) have made strong cases for the use of online video as a tool for delivering content. In a 60-minute interview with Salman Khan, he shared how his viewers feel like he is sitting next to them as he works through problems in “real-time” and students can see the process of his work. He began by tutoring his cousin remotely and then started posting videos on YouTube. Over time his videos not only helped his cousin but in addition to that, complete strangers started watching videos for support. It started tapping into kids with different learning needs. Video clips are a major resource for teaching the Net Generation and for drawing on their multiple intelligences and learning styles to increase the success of every student. There is a match between the media and the students’ intelligences (Gardner, 2000; Veenema & Gardner, 1996).

Howard Gardner (2004) identified intelligence as a set of skills that make it possible for a person to solve problems in life; however, these sets of skills vary between individuals. Individuals also preferentially take in and process information in different ways: by seeing and hearing, reflecting and acting, reasoning logically and intuitively, and analyzing and visualizing. The idea of multiple intelligences is a theory that was developed to document the different intellectual strengths that human beings had and that these strengths are important in how people learn and represent things in their minds. It also tells how people use their intelligences to show what it is that they have understood. The value of using video in the classroom taps into core intelligences of verbal/linguistic, visual/spatial, musical/rhythmic, and emotional (interpersonal/intrapersonal). Video has a strong effect on the mind and senses and teachers who use instructional video report that their students retain more information, understand concepts more rapidly and are more enthusiastic about what they are learning (National Teacher Training Institute, n.d.).

**Interactivities**

The Resources section of our Schoology site includes six folders: Background Research, Learning, and Frameworks; Video Assessment Checklist; Lesson Plans; Web-Based Resources; Community; and Recommendations. The Background Research, Learning Frameworks, and Theories folder features concise overviews of pedagogical concepts pertinent to the use of video in the classroom. These concepts informed the design of our Video Assessment Checklist, which we encourage teachers to apply to their own lessons. Lesson Plans houses a bank of lessons created by community members. Community members can post lesson plans directly to the folder, and embedded discussion forums afford community feedback. Web-Based Resources houses links to community approved video sites. Community houses member created resources, such as graphic organizers and exit slips. In Recommendations, members can recommend specific videos they have used in their classroom, and, if they choose, can post reviews of the videos using our Video Assessment Checklist. Separate from the Resources section is a Discussions section where members can pose general questions to the community.

**Verification**

In order to create a valuable verification assessment, it is necessary to consider the intent of the design. We set out to create a learning environment that enhances an educator’s understanding and appreciation of the practical uses of video formats to deliver curricular content. To this end we have created a bank of resources, as well as discussion forums that will allow for the organic growth of user generated content. The use of these discussion groups, as well as the growth of user generated content will act as a dynamic verification of the successful rollout.

Garrison, Anderson, & Archer (2000) in their assessment of Computer-Mediated Communication, established a Community of Inquiry Model which can act as a guide to assess the effectiveness, and engagement of learners within a design environment. Social presence: This will be gauged through the use of discussion boards and user provided content. Learners will be able to interact with their peers to benefit from the variety of learners experiences within the group; Cognitive presence: As learners upload, review, and analyze content provided by their peers, they interact with their content and deepen their personal understanding; Teaching Presence: The selection of core content on the site by our design group provides guidance for discussion as well as support for users as they engage within the site.

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**Appendix A: Assessing Effectiveness of Teacher Selected Videos in K-12 Contexts**

|  |  |  |  |
| --- | --- | --- | --- |
| Yes | Somewhat | No |  |
|  |  |  | Does video provide a sense of “being there”? |
|  |  |  | Does video address specific learning outcomes? |
|  |  |  | Is the video appropriate and engaging for the intended learners/target audience? |
|  |  |  | Does video enhance instruction through animations? |
|  |  |  | Does video present content in multiple modes (written text, audio, visuals) |
|  |  |  | Is video appropriate length for target audience? |
|  |  |  | Is video/video site device agnostic/viewable on any platform? |
|  |  |  | Does video/video site afford meaningful online discussion/community building? |
|  |  |  | Are videos downloadable for offline viewing? |
|  |  |  | Does site afford pausing, rewinding, fast-forwarding, and re-watching? |
|  |  |  | Does video have high production values/is video engaging for digital natives? |
|  |  |  | Does video/video site include minimal commercial content? |
|  |  |  | Is the video/video site free of objectionable content and free from access to other videos/video sites with objectionable content?  Note: objectionable content refers to content inappropriate for target audience. |

**Note:** A video need not meet all of the above criteria to be effective for intended purpose and target audience.

**Appendix B: Major Trend Analysis of Survey Data**

**Where do you find video resources?**

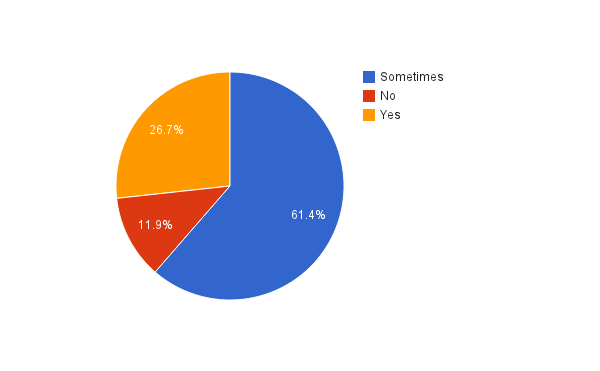
* Overwhelming majority of teachers use YouTube to find videos

**How do you select appropriate videos for content?**

Major Trends:

* Previewing videos (by far most common response)
* Recommendations from teachers/teacher-librarian
* Curriculum connections/meets outcomes
* Using key words in a search engine
* Selecting videos that are engaging/not boring

**Do you do a post-assessment on your video?**



**What types of post-assessments do you do?**

Note: There was a discrepancy in the results from this question as some respondents took this to mean do you have students complete a post-assessment on the video? Some teachers took this to mean do you evaluate the effectiveness of the video after you have used it?

Major Trends:

* Class discussion
* Questioning
* Reflections/journal entries

**In what ways do you engage learners with videos?**

Major Trends:

* Frequently pause the video to discuss/have discussion afterwards
* Give a preamble/introduction to the video
* Videos are the engagement! Videos are used as a hook for another part of the lesson
* Make sure the students know what they are watching for
* Use videos that are engaging

For a complete look at our survey data click on the link below:

<http://bit.ly/1mBVvbH>

**Appendix C: SECTIONS Framework Analysis based on the work of Bates and Poole (2003)**

**S - Students:** Our intended students are adult learners in the K-12 education field who are a busy group of individuals looking for an easy-to-use platform that does not take a lot of their time to learn.  They also require access to resources that are of educational value and appropriate to the level they are teaching.  The Schoology site is very appropriate for our intended audience as it provides a secure place for teaching professionals to connect and interact with others in their field from anywhere in the world.

**E - Ease of use and reliability:** For our design, we did notice that after getting a lot of our resources up on the site, that the way we had organized our Schoology site had left it cluttered and with numerous folders.  This would require our user to navigate multiple folders and click numerous times in order to find the section that they wanted.  Through much discussion, in which we contemplated other programs to house our project on, we were able to streamline our organization to make it easier to find resources and reduce the amount of folders we had.  We still have folders on the site, in order to help educators find the resources they are looking for easily.  Without these folders, we found that it would be challenging for our learners to find what they need, which could lead to them abandoning our site.

**C - Costs:** The Schoology site is free for users. The only cost would be the time required to participate.

**T - Teaching and Learning**: The purpose of our site is to create a community of practice through which K-12 teachers can easily interact with each other.  Our goal is to enhance the user performance of teachers when they are utilizing videos in their classrooms.  This will be accomplished through:

* access to scholarly articles and resources.
* our checklist that allows users to to reflect on and critique the videos they are showing in their classrooms.
* the sharing of community resources such as lesson plans, links, and videos that are already teacher-approved.
* discussions with other K-12 teaching professionals.

The ancillary goal of our community of practice is that through access to other teaching professionals and resources, our learners will be able to increase their knowledge in using videos in the classroom.

**I - Interactivity:**Through Schoology learners are able to interact through a variety of ways through the community of practice model:

* Background Research, Learning Frameworks, and Theories folder features concise overviews of pedagogical concepts pertinent to the use of video in the classroom.
* Assessment Checklist: a diagnostic tool for assessing educational value of online videos, including exemplars.
* Web-Based Resource section created by the design team that offers a variety of web-based resource links.
* Lesson Plans houses a bank of lessons created by members.
* Community Section which allows for member-created resources to be posted.
* A Discussions section for posting general questions to the community.
* Recommendations section to post links to recommended resources.

**O - Organizational issues:**The first barrier that needs to be removed is that users have to create a free account with Schoology.  Once that is done, they need to have either been given the access code to our page, or finding it through a group search on the Schoology site.  In addition to this, our group has focused a lot on the organization of our site, including looking at other alternative platforms.  Schoology gave us the ability to organize and display our site in the most logical and easy to use format from all of our other options.  It also allows us to change and reorganize our group as we get feedback from our learner community.

**N** **- Novelty:** Schoology was founded in 2007-2008 (Schoology, 2014a).  It is a relatively new LMS, with a streamlined look. The platform is reminiscent of *Facebook* which can add to the novelty.

**S - Speed:**

Schoology offers great speed for users.  Users can create a course or a group within a minute and then add resources to them as they go.  Certain materials will take longer, such as quizzes and assignments as they need to be created and written by the user.  This however would be similar to using another site, or just using a printed off assignment.  Once the document is created, the user can upload the file very quickly.  Materials can also be easily changed and deleted. As with every LMS, some time is required at the beginning to learn your way around the system and become familiar with the environment.

**Reflections:**

**Group:**

Collectively as a group, we found the process of designing a technology-supported educational environment to be a challenging and effective learning experience. Our original design proposal was more focused on content rather than design and after the appropriate feedback from our instructor we were better able to focus our project. As a result of this, we had a first hand experience of how the instructor in an online environment is present to help guide learning. While creating a learning environment that is useful to our group members specific teaching practices is important, we also soon learned the importance of gaining survey information from our target audience as to what they wanted before proceeding with design. After receiving feedback from our design proposal, we sent out a survey to our colleagues and friends that are educators. Within a couple of days we had received an overwhelming response from teachers who voiced their opinion. It was a great experience to read their responses and put into action a design that would meet their needs. Alternatively, due to the nature of this course, as we progressed through course readings and became more aware of different types of design practices and environments, we were better able to select a design approach that met the need of our audience and their needs. We relied heavily on online video conferencing via Google Hangouts and Google Docs in order to collaborate, discuss and ensure we were on the right track in order to complete the assignment. Overall, we found this project to be a positive experience and are excited about incorporating our design and other design approaches into our classroom and teaching practices.

**Courtney:**

Personally, my experience with theory and frameworks behind design were very limited before this course and project. While I work hard to deliver learning to my students, I have realized that I took for granted the work and effort that goes into selecting and designing appropriate and effective learning environments - whether it is face-to-face or online communities. At first this project seemed like a daunting task to undertake - there are so many websites, learning management systems and online collaboration sites where we could have created our learning environment. As a group, selecting video as our topic was an easy task. However, we soon learned that our original project intentions was too focused on content rather than design. As we progressed through the course and the course readings on communities of practice, collaborative learning and SECTIONS I became more familiar with specific frameworks of design. These readings made it easier to think as a “designer” for a technology-supported learning environment rather than as an educator creating and delivering a content lesson supplemented with videos. As a group, once we received appropriate feedback from our intended target audience we were better able to narrow down the focus of our design framework it became easier to select the best medium to deliver our design. Through this process I learned the value of obtaining the needs of your customer first before beginning the job. It is difficult for a design to be successful if the target audience does not need or find it useful.

**Daniel:**

Prior to taking this course, I had experience designing online Canadian history and world history courses at the high school level. While I do have experience as a course designer, a busy teaching schedule does not always afford time to reflect on design choices. This project has helped me better understand the difference between content and design. Initially, our group effort focused on researching best practices when using video in the classroom.  During this initial research phase, our group was thinking primarily about how to design lessons and projects that effectively incorporated video into the learning process, and the benefits of using video in K-12 contexts. We paid less attention to the design of a learning environment that could effectively teach our target learners how to effectively use video in their classrooms. Instructor feedback through email and video conferencing guided our design in the right direction. It was particularly helpful when the instructor informed us that our design resembled a community of practice. This sparked inquiry into community of practice models that led to a redesign of our learning environment. The research we conducted into effective video use, however, was not time wasted, as it informed the design of our Video Assessment Checklist, which became integral to our community of practice design.

**Jodi:**

Before this project, I had had very little experience with the design aspect of learning environments.  As an MET student and a grade 4 teacher, I have had access to different online learning environments, but never as a designer.  I could tell you specific things that I did not like about the different learning environments, especially the ones used with my students, but I had never thought about what goes into designing the environments.  Being able to learn about the theories and frameworks around the design of learning environments has been a fascinating experience for me and has changed the way I think about and evaluate learning environments.  Throughout the course of this project, I often felt frustration at receiving articles such as the SECTIONS framework later in the course.  While they would have helped our group be more focused and data driven in the beginning, at the end of this course I feel that having gone through the struggles and ‘misleads’ in our topic has made my learning more authentic and lasting.  The biggest thing I learned through this process is the importance of asking or surveying your intended audience when creating a learning environment.  This leads you to have a more focused vision that keeps you from getting off-track on other ideas and areas.  It also ensures that you are creating a design that not only serves the purpose you wanted, but also is beneficial to your intended audience.  This course has even resulted in a shift in my pedagogy as I was inspired to use videos to experiment with the Flipped Classroom Approach.  I even created a survey for my students to reflect on the experience.  Through this approach I have found a new way to meet the challenge of bigger class sizes which has been invaluable.  Working on this project and with an incredible group of people has allowed me to grow as a teacher and as a Master’s student.

**Matt:**

The process of creating this design project has been deeply beneficial on two layers. Firstly, when we began this project my focus was very much on the content. I was focused on video, and the value for its use, rather than the project as a whole. We (I) forgot to ask the base questions: why are we designing this project? who will it serve? and how will we know that we have hit the mark? Following our proposal we, as a group, were surprised at the feedback, again we felt that we were doing a great job with the content - which we were, however, we had missed the design focus. We quickly made an appointment with Dr. Michael to set ourselves on track. Following our online meeting with Dr. Michael we had a new direction. As a group we took a greater focus on the task at hand. We created and distributed a survey and received responses from 100 teachers and used that information to construct our site. I believe that we have created an effective resource, that will both educate, and assist teachers in developing more effective resources when implementing video formats into their classroom. Second, I have never worked with such a dedicated group, it was enlightening to me to watch 5 very different experiences and backgrounds go into a google hangout session with different ideas, and opinions, then after 1 hour leave on a single note, with the intent to implement our action items and meet again to check in on the progress. I have referred to them as an “amazing group”, and I say it again: This group was amazing.

**Shafali:**

The process of designing an environment which meets the needs of K-12 educators for how to effectively use video was challenging in many ways.  Our group had many Google Hangouts to share and review ideas, and to figure out how to steer our project in the right direction.  Feedback from Dr. Michael was also instrumental in guiding us back on track.  I have learned that prior to engaging in such a project, data must be collected from the users to ensure what we are designing is what the “clients” need and want.  This was, in my opinion, our steepest learning curve.  Having created a survey ¾ of the way in and sending it out to nearly 100 educators, we found that the results that came back helped guide our design intentions to meet the needs of the learners, and solidified our project goals.  As the weeks progressed, I also found the articles we were reading became more relevant to our project.  At some points, I wished I had read certain articles earlier on in the course (i.e SECTIONS), as they provided excellent tips and guidelines in designing a technology supported learning environment.  Choosing an environment for our focus group took deciding upon.  Initially we were thinking a website would suffice, but learning more about LMS sites like Schoology and community forums like Google Communities, led our group to further discussions.  Having gone through this process, I learned how all the information we gathered up to this point helped us decide on an environment as opposed to choosing the environment first without any prior work being done.