Abstract
The purpose of this paper is to share the structure and experiences of an intensive learning module on video production best practices developed as part of a capstone summer experience for a master of arts educational technology program. This learning module was conducted as part of a four-week international master’s program located in Galway Ireland. The students that participated were enrolled in the Master of Arts in Educational Technology (MAET) program from Michigan State University. The learning module on the foundations of video production was developed as a key component to the capstone curriculum of the three-year degree program. Learning how to effectively use video, and teach video production in educational settings is a key component of educational technology. The aim of this learning module was to break down the video production process into its core elements; pre-production, production, and post production. Within each section students were presented with contemporary practical guides on the technology (both hardware and software), aesthetic components, and hands on active learning exercises. This paper explores the benefits from best practices on how to integrate video production learning modules into educational technology programs or coursework, and a review of the challenges and opportunities that were identified from the successful integration of this learning module.

Keywords: Video, technology, active learning, creativity, iteration.

1 INTRODUCTION
The use and familiarity with online digital video has shown strong continued gr owth in nearly all sectors of media over the past several years. According to a PEW Research Center Report (2013) the national percentage of adults in the United States that watch or download videos has increased to 78% and almost a third (27%) upload video to the internet [1]. The rise of video use is not limited to purely entertainment, or social networks, but is widely dispersed across many disciplines such as educational technology.

Video has been shown to enhance training in distance based learning [2], increase the online social presence of an instructor [3], and through various production methods affect student engagement [4]. While there are many production oriented guides for filmmakers and video professionals, often there is little overlap into formal educational training. This paper explores the development of a learning module entitled “Foundations of Video Production” that was designed to abstract the core essence of traditional film and video production coursework and provide a practical program for educational professionals. The aim of this module was to provide a “crash-course” of sorts as part of the capstone summer experience for master’s level educational technology graduate students to get them “up to speed” with contemporary video production equipment, techniques, and best practices that can be adopted and implemented immediately in their own work, or in their respective classrooms.

One of the main challenges with the development of this intensive course module was to address the diversity of preexisting knowledge and experience in video production. It is understood that students who have not previously taken formal coursework or workshops on video production, come to this module with a myriad of personal experiences and self-taught techniques. The Master of Arts in Educational Technology program in which this module was created, boasts a wide variety of educational professionals enrolled in the program. The program consists of traditional K-12 level teachers (with a diverse range of subject area disciplines), technology integrationists, administrators, information technology professionals, as well as students who are relatively new to educational technology.
With the diverse range of students and incoming skill levels, the aim of the module was to provide a solid foundational program that would allow students to further develop their understanding and practical experience of creating engaging video productions. To this end, the module works within the programs purview to prepare students to use their critical thinking and creative mindsets by focusing on innovative and technology agnostic approaches to producing creative and engaging educational experiences [5].

2 MODULE DESIGN

When designing the “Foundations of Video Production” learning module, great care was taken to ensure that the module focused on distilling the essence of film school down into a compact easy-to-grasp format that was brand and technology agnostic. The rationale behind this, is to ensure that students focus on the tips and techniques used to create engaging visuals that will assist their goals of effective storytelling, and not become preoccupied with the so called “speeds and feeds” of specific equipment or platforms. The added benefit of this approach is that it remains platform agnostic, so the skills and techniques can be implemented through any equipment. The video production equipment available to students in this program is as diverse as the student group themselves, some have access to higher end equipment, while others have no specialized equipment, and many fall somewhere in between. Focusing the module on the basic yet effective foundational techniques, students can apply their knowledge to the gear they have access to, and learn how to evaluate the video equipment to better understand the limitations and affordances of their setup.

The “Foundations of Video Production” module was run over the course of one week, during the four-week intensive summer program. The module consisted of three main aspects: the lecture component that covered two days’ worth of class, the activity component (students completed short tasks and assignments based on the lecture material, and their capstone video project (a final component to the MA program). The remainder of this section will explore each section of the lecture component, and the remaining two sections will be discussed in the subsequent section on the active learning component.

2.1 Lecture components

The lecture component covered the entire video production process and was broken down into its three categories of production: pre-production, production, and post-production. The first reaction from many students is to grab a camera and jump right into the production phase and make up their story or theme as they go. Unfortunately, this style of “winging it” rarely works to create a well thought through, engaging, or effective video. To address this common tendency, a heavy emphasis was placed on the pre-production phase to further illustrate the importance of having a plan when developing a video project. Before the module explores the three stages of production, the student group looks at the anatomy of the entire process to see that for most small-scale productions the pre-production phase can take up to 50% of the project.

2.1.1 Pre-production phase

Pre-production is the first stage discussed in which students are asked to think about their video project themes and to work on developing a plan around how they can distill their grand ideas down to 150 seconds of screen time (based on the requirements of their final video project). Students are challenged to write down their thoughts and ideas so they can be coalesced into a plan. The key at this point is to gain an understanding of how to take their ideas and describe their video in one sentence. Further, students learn to identify the purpose of their video and how it will “change” or “motivate” the viewer to a “call to action” of some form. One of the key points of the pre-production phase is to get students to begin thinking about their video as a series of shots, not as one continuous experience. Through this process students learn to take their series of shots and arrange a storyboard that creates the “blueprint” for their video projects and provides a clear understanding of how the video will tell the intended story through a series of discrete shots. During this phase, students learn how to breakdown their storyboards into shot lists to assist them in effective time management and resource planning (equipment, actors, locations, etc.) to ensure they can complete their video production within the course time constraints.
2.1.2 Production phase

The next section covered is the production phase. This section consists of general tips and suggestions about how to evaluate and test your video production equipment. Students are taught how to evaluate the limitations and affordances of their gear (what it can, and cannot do). They learn the importance of testing their gear to become familiar with the available features and controls, and use that information to match or adjust what is possible based on the storyboard. This section also includes guides on fundamental “do’s and don’ts” such as lighting techniques to keep the brightest light behind the camera, how to deal with exposure issues, the use of tripods, camera movements (panning and zooming), and the importance of experimentation. The last section in the production phase is focused on the compositional elements of cinematography. Within this section, students explore the compositional elements of the relationship between subject and background, visual balance of the shot, rule of thirds, and how (or if) to deal with vertical video. Point of view, and shot type (wide, medium, and close) are also explored along with additional tips on field lighting and sound capture.

2.1.3 Post-production phase

The final section on post-production covers the foundational elements of the post-classical editing workflow. In this section, students learn the importance of developing a “rough cut” to get their shots in rough order and to begin the iteration process of review and editing. Students learn how to use shorter shot lengths, faster cuts, and jump cuts to create a more contemporary style of video. In this section, the use of special effects and transitions are discussed and a heavy emphasis is put on limiting any visual distraction from transitions or effects. The intention is to have the audience focused on the video and the story and not distracted by the transitions.

3 ACTIVE LEARNING EXPERIENCE

There are two main active learning experiences that accompany the “Foundations of Video Production” module, the short video assignment, and a capstone video project. After the completion of the production phase of the module, students are presented with a short (one hour and a half time limit) video assignment in which they must try to incorporate the tips and techniques covered in the lectures first two phases. Students are placed into randomized small groups of three to four people and given a randomized topic of generic educational themes for their video.

3.1 Short video assignment

The short video assignment has several constraints placed on it to keep the students focused on utilizing the video production tips and techniques acquired. For example, each group has the same level of constraints; the video is given a fixed number of shots, each with a fixed duration, removing the decisions of the group on how long each shot should be, and how many shots should the video contain. The constraints are set by the instructor, and can be adjusted as needed. Based on previous experience as well as inspiration from the Five Vignette project on Vimeo [6], the durations are typically fixed at five shots, with each shot exactly five seconds in duration. This ensures that all videos are exactly twenty-five seconds in length, no more, no less.

Students are then charged with developing their storyboard based on their randomly assigned theme, using the five-shot constraint to tell their story. From that storyboard, students are to generate a shot list, and evaluate what equipment they have at their disposal to film their shots. Again, the value of the agnostic approach can be seen in action as students have to adapt their ideas to the equipment available, which often results in the use of mobile phones, or digital SLR cameras to film the shots. At this stage in the module, post-production editing techniques have not been covered so students are instructed to keep their editing to the most simplistic layout with no titles, transitions, audio tracks, or effects of any kind. This keeps the focus on the five shots and forces students to work those five shots as best they can to tell the story based on their theme.

For many of the students, this activity is the first time they have gone through a video production by separating it into its discrete phases. The results are rather diverse but a consistent theme that tends to emerge is the coalescence of how the sequence of short scenes organized in a thoughtful manor can tell a story more effectively than just running the camera for one long shot of the same final length. At the end of this short video assignment, students will have at least one hands-on experience producing a video through all three production phases. This experience has proven to be a valuable
exercise giving students a chance to work through the process in a small group before they have to employ these techniques on their own individual final video project.

3.2 Final video project

As part of the capstone experience in this four-week intensive course, students are required to complete a short video project not to exceed two minutes and thirty seconds (2:30). The “Foundations of Video Production” module helps to prepare the students to have a clear thought-out plan to approach their video project. Due to the limitations of time and resources (equipment, actors, locations, budgets, etc.) students are able to leverage the practice they received on the pre-production phase to accurately plan their video project before they expend time and energy to record any footage. One of the aims of this module in preparing students for their capstone project is to give them the tools to manage their time and resources in creating a successful video. The initial scope of the video projects is often an issue being unrealistic. Through the iteration process and pre-production planning, students work through their videos to reduce the scope to a manageable size as well as reduce redundancy and long shot durations that detract from the desired pacing and message. By placing a strong emphasis on the pre-production phase, students are able to manage their time and production schedules effectively to accomplish their final video projects in less than one week’s time.

4 CONCLUSION

Coming full circle with the “Foundations of Video Production” learning module, students in the intensive Master of Arts in Educational Technology program are encouraged to download a copy of this module for a couple of reasons. First, to continue to learn from it as a reference for future video productions of their own. Secondly, and perhaps more importantly, they are encouraged to use this module and adapt it as needed to be applicable in their own educational or professional setting. This module is intended to be reused, recycled, and or modified so that teachers and educators can use this as a jumping off point to introduce the basics of video production to their own students, colleagues, or as a professional development session. This video module aims to enhance the educational experience through the development of digital video productions that can increase students understanding of new digital media and literacies, as well as traditional academic literacies. With the increasing usage of video in all forms of digital communications, and online environments, having the ability to create engaging videos is a skillset that is sure to be in high demand.

REFERENCES